CITY OF PORTLAND, MAINE

PLANNING BOARD

Brandon Mazer, Chair
Maggie Stanley, Vice Chair
Marpheen Chann
Sean Dundon
Bob Dunfey
David Silk
Austin Smith

AGENDA
PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a remote meeting on Tuesday, September 14, 2021, 4:30 p.m. (Due to the existence of an emergency or urgent issue, the Planning Board will conduct this meeting by remote methods/technology at the Zoom link provided below in accordance with requirements of 1 M.R.S. section 403-B and the City Council's Remote Participation Policy.)

Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov. Please note that the placement of items on this agenda are subject to change. Please check the Agenda & Minutes Center prior to the meeting for the item's approximate start time.

When participating via Zoom, allow your computer to install the free Zoom app to get the best meeting experience. For public comment, you will need to use the "raise your hand" feature. To raise your hand via the telephone, please hit *9. You will be unmuted by the moderator when it is time for public comment. For more information on how to use zoom, please go to: https://www.portlandmaine.gov/remotePUD

ZOOM MEETING INSTRUCTIONS
You are invited to a Zoom webinar.
When: Sep 14, 2021 04:30 PM Eastern Time (US and Canada)
Topic: Planning Board Public Hearing 9/14/2021

Please click the link below to join the webinar: https://us02web.zoom.us/j/84219813088
Or iPhone one-tap mobile: US: +19292056099,,84219813088# or +13017158592,,84219813088#

Or Telephone: Dial(for higher quality, dial a number based on your current location):
US: +1 929 205 6099 or +1 301 715 8592 or +1 312 626 6799 or +1 669 900 6833 or +1 253 215 8782 or +1 346 248 7799

Webinar ID: 842 1981 3088
International numbers available: https://us02web.zoom.us/u/kcC1Ugj5aZ

PUBLIC HEARING - 4:30 PM

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATION AND REPORTS

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON AUGUST 24, 2021

Afternoon Workshop
654 Riverside Street: Chann, Dundon, Dunfey, Mazer, Smith and Stanley present; Silk recused.
477 Congress Street: Chann, Dundon, Dunfey, Mazer, Silk and Smith present; Stanley recused.

Evening Hearing
148 State Street: Chann, Dundon, Dunfey, Mazer, Silk and Smith present; Stanley recused.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON AUGUST 24, 2021

i. Major Site Plan and Conditional Use; 654 (638) Riverside Street; DC Predevelopment, LLC. and City of Portland, Applicant. Chann moved and Dunfey seconded a motion to set a date for hearing for this item pursuant to Planning Board Rules, Article 3, Section 5. Vote 2-4 (Silk recused); the motion failed.

ii. Level III Site Plan and Subdivision; 148 (144) State Street; NewHeight Redfern, LLC., Applicant. Dundon moved and Dunfey seconded a motion to waive Technical Manual Section 4.5.5, Parking Areas, to allow the parking lot to be developed without landscape protection. Vote 6-0, Stanley recused. Dundon moved and Dunfey seconded a motion to find the proposed conditional use for workforce housing to meet the standards of Section 14-487 with two conditions of approval. Vote 6-0, Stanley recused. Dundon moved and Dunfey seconded a motion to approve the subdivision with two conditions of approval. Vote 6-0, Stanley recused. Dundon moved and Dunfey seconded a motion to approve the site plan with five conditions of approval. Vote 6-0, Stanley recused. Dundon moved and Dunfey seconded a motion to find the plan in conformance with the B-3 Conditional Use standards of the Land Use Code. Vote 6-0, Stanley recused.

5. NEW BUSINESS

i. Zoning Map Amendment; 57 Douglass Street; Douglass Commons, LLC., Applicant. (estimated time 4:30 - 5:15 p.m.) The Planning Board will hold a public hearing to consider an application for a zoning map amendment from R-5 to R-5a at 91 and 41 (57) Douglass Street in order to facilitate a future 108-unit affordable housing project under Planned Residential Unit Development (PRUD) standards. The subject property is 3.35 acres in size.

ii. Conditional Use; 803R Forest Avenue; Avenut Auto Co., LLC., Applicant. (estimated time 5:15 - 6:00 p.m.) The Planning Board will hold a public hearing to consider a conditional use application to facilitate the siting of a 5,300 square foot auto dealership and showroom within an existing building at 803R Forest Avenue. The subject property is 17,409 square feet in size and is zoned B-2 Community Business.

iii. Executive Session (estimated time 6:00 - 7:00 p.m.) The Board will go into executive session pursuant to 1 M.R.S. 405(6)(E) to consult with its attorney regarding its legal rights and duties with respect to the Board's review of the 654 Riverside Street application.

iv. Major Site Plan and Conditional Use; 654 (638) Riverside Street; DC Predevelopment, LLC., and City of Portland, Applicant. (estimated time 7:00 p.m.) The Planning Board will hold a public hearing to consider a proposal for the development of an approximately 51,960 square foot, 200-person capacity emergency shelter at 654 (638) Riverside Street. The subject property is 28.92 acres in size and is zoned I-M and I-H Industrial.

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

June 18, 2021

Ms. Christine Grimando
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application
Applicants: DC Predevelopment LLC and City of Portland

Dear Christine:

On behalf of **DC Predevelopment LLC (Applicant) and the City of Portland (Co-applicant),** we are pleased to provide the accompanying Major Site Plan Application package related to the proposed Homeless Service Center located at 654 Riverside Street in Portland, ME. This submission package is intended to meet the City's Submission Requirements as outlined in the Major Site Plan Application procedures. This submittal provides information in support of the Portland Land Use Code Article 14 – Major Site Plan Standards. We understand that the City of Portland will be responsible for completing the Third Amended Subdivision Plan[1] for the project area.

The City has engaged DC Predevelopment LLC in response to RFP #21041[2]. The development will include a 51,690± SF Homeless Service Center to include temporary residential use with a kitchen, dining area, staff offices, and a health clinic as well as parking area, outdoor recreational space and courtyard areas. The facility will have the capacity for up to 200 guests.

The development effort will include a team consisting of the following:

- Property Owner – City of Portland
- Applicant –DC Predevelopment LLC and City of Portland
- Architect – Winton Scott Architects
- Design Build Contractor – Cianbro
- Homeless Services Consultant – Amistad
- Civil Engineering and Permitting – Gorrill Palmer
- Landscape Design and planning – ALA Architects
- Sustainability Consultants – Thornton Tomasetti
- Geotechnical Engineer – SW Cole Engineering

[1] See Second Amended Riverside Subdivision CCRD Plan Book 218, page 199, specifically for Lot 4-2
[2] See Council Order 281-20/21 approving and authorizing the first letter agreement with DC Collaborative

EXISTING CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.

- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[3]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Riverside Street in the vicinity of the proposed site entrance includes single lane travel ways in each direction in addition to a center two-way left turn lane that benefits the many property driveways located along the street. There are variable width paved shoulders and curbing on each side of the street. Paved sidewalks exist on each side of the street except for a length or approximately 880 LF just north of the proposed site entrance, towards outer Forest Avenue.

[3] See CCRD Book 27677, page 125

Riverside Street Entrance Location

PROPOSED PROJECT

As taken from the RFP requirements the project is intended to support the following elements:

- Covered entryway
- Security office adjacent to main entrance with space for CCTV monitors
- Double entry access (enough space to do searches before shelter guests may enter shelter)
- 200-space locker room attached to the building with internal and external entry –unheated
- Multi-purpose room/dining area with 200 seating capacity. Area for buffet style serving and access to kitchen
- Kitchen with room/equipment to serve 200, food prep area for breakfast, lunch, and dinner items, salads, soups, sandwiches, materials. Walk-ins, storage, freezers to hold enough prepared meals to serve 200 one hot meal per day - for up to one week
- Staff office area – 16 offices, conference room, copy/office equipment and storage areas, male/women bathrooms, gender neutral bathroom with shower, break room, reception area, waiting area, server room and electrical room – direct access to parking area.
- 15-20 staff lockers
- Large dormitory for male guests – 144 raised beds – 6 feet between, Female – 60 beds.
- All beds to have electrical outlets next to beds.
- Observation area where staff has a direct line of vision into all sleeping space and multipurpose space – containing a small meeting room and office large enough to accommodate wheel-chairs. Areas for computers and printers.
- Laundry/utility room sufficient to provide on-site laundry for residents and general facility needs
- Bicycle storage

- Men/Women/ Gender Neutral bathrooms/showers
- Three to four multi-purpose meeting rooms for service center guests having meetings, classes, activities, etc.
- Storage areas and a mechanical room
- Maintenance room
- Exterior trash compactor and appropriate space for recyclables and compostable waste
- An enclosed court-yard sufficient to accommodate residents and accessible from inside the service center only (emergency exit directly outside but alarmed). Partial cover.
- Parking for 28-30 vehicles
- Attached Health Clinic with direct access from inside the service center and also a separate entrance from outside the service center including:
    - 4 exam rooms
    - Reception and waiting area
    - Patient/staff bathrooms
    - Lab
    - Storage
    - 2 offices
    - Isolation room

These activities will involve site work construction including building and foundation work, utilities construction including water, sewer, drainage, gas, power, and/or communications extensions into the buildings and landscaping. We understand that the site can be served by public infrastructure for water, sewer, electrical and communications, subject to confirmation as well as confirm the availability of natural gas to the site.

For purposes of establishing the use, the Homeless Services Center is considered an Emergency Shelter which is a Conditional Use within the IM/IH zones. Based upon the information provided by the City of Portland the following will be required as part of this development:

- An Easement is required to access and maintain the nearby City Communication Tower;
- An Easement at the site entrance is required to access Portland Trails network to the Presumpscot River;
- The City is responsible for amending the Riverside Street Industrial Subdivision Plan to include the subject parcel (7.01 acre Lot 4-2.); and
- Property to remain in City ownership.

The Major Site Plan and Conditional Use Applications are made part of this current submission.

In accordance with Section 6.5.6 Supplemental use-specific conditional use standards part B pertaining to Emergency shelters we offer the following information:

B. Emergency Shelters

1. *The facility shall provide adequate space for conducting security searches and other assessments.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

2. *The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

3. *A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

4. *Adequate access to and from METRO service shall be provided. The facility shall be within a ¼ mile of a METRO line, or shall be within ½ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.*

   Supporting Evidence: The site is located approximately 0.3 mile from the transit stops of the METRO Route 2 along Forest Avenue. The building will provide for indoor space to permit shelter guests day shelter.

5. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

6. *Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.*

   Supporting evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

   Supporting Evidence: The Site plan contains a plaza at the front of the building where guests may congregate. A second plaza area is also located to the south side of the building and that will contain space for guest to congregate, socialize and participate in activities.

CLOSURE

As outlined in the Major Site Plan submission requirements and checklists, we will upload the following materials upon authorization by City staff:

- General Application Documents
  - Cover Letter/Project Description/Operational Key Plan/Operations Management Plan
  - Major Site Plan Application Checklist/Conditional Use Application
  - Right, Title and Interest
  - Zoning Assessment
  - Existing and/or Proposed Easements (please see Survey Plan)
  - Waiver Request and Waiver Table
  - Financial Capacity
  - Technical Capability
- Transportation
  - Transportation Narrative
- Environmental and Landscape Features & Stormwater
  - Narrative to Address Standards
- Public Infrastructure and Safety
  - Narrative to Address Standards
- Site Design
  - Narrative to Address Standards
- Construction Management Plan
- Site and Architectural Plans

On behalf of **DC Predevelopment LLC and the City of Portland,** we look forward to your continued assistance on the project and we look forward to the next available workshop meeting with the Planning Board. As is required, once we complete the Planning Board workshop, the applicant will be conducting a Neighborhood Meeting(s) We anticipate this meeting will be conducted prior to the Public Hearing.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Attachments

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigridson, Boulos Co.
Kristen Dow, City of Portland

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City of Portland Homeless Services Center

Management Plan

I. Overview:

The City of Portland Homeless Services Center (HSC) at 654 Riverside Street will be a state-of-the-art, one-story emergency shelter that will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18. The HSC will be open 24 hours per day, 7 days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 1** for a comprehensive list of services.

The HSC will further the City's mission by providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. The HSC offers a space where our clients stay and staff can work in a respectful and safe environment. In collaboration with community partners, we will provide wide-ranging services to our consumers with compassion, dignity, and respect.

As with our current shelter, the HSC will serve a diverse population. Women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, and those struggling with substance use and mental health who are unhoused. The services at the HSC will optimize the services of the smaller specialized shelters through a robust referral process that maximizes resources across our system. This system offers the highest level of service by those most equipped to help.

The HSC is a one story building easily accessible to all. Our clients will be able to access the facility throughout the day and will not need to leave with their belongings, something they have been subject to in the past. Our large day space will have an area for meal services including a fully equipped kitchen where staff can prepare and serve meals. Indoor storage lockers, bathrooms with showers and laundry services that are all available to clients. Sleeping areas will have beds where each individual has a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The quad-bed pod layout provides increased ability to social distance when necessary and additional privacy.

The HSC will have a full service federally qualified health clinic (FQHC) operated by Greater Portland Health. The clinic will offer medical, mental health, substance use treatment and dental services on site. Also provided are small group rooms and offices which are utilized for peer support, specialized services and community providers to create wrap-around services for our clients. Please see **Exhibit 2** for a list of community partners.

II. Staffing and Management Responsibilities

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three Managers there is on site coverage 6am-11pm, as well as 24/7 on-call rotation. In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage.

The HSC will be staffed 24/7 by our shelter attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to everyday operations. They will assist new clients with orientation to the facility and assist in connecting clients to our housing team, as well as referring to other community partners on site to include the FQHC.

The HSC will have a team of dedicated housing counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. The Homeless Service Center offers housing services to all clients accessing the service center and will have housing staff onsite 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[1]

A key part of our housing team are the housing retention specialists. They connect with clients as they transition from the shelter. In support of the housing first model the specialist wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, including connecting to community meals, medical care and case management services. Our housing retention specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for reporting, filing, and scheduling. They also work with management on specialized tasks, giving great attention to detail and a high level of accuracy.

[1] "Housing First"*National Alliance to End Homelessness* April 20, 2016
https://endhomelessness.org/resource/housing-first/

Our facilities team is an integral part of ensuring that the space is a safe, clean and inviting place for clients to access and staff to work. We have facilities staff onsite from 6am-2am. Our facilities team respond to all maintenance emergencies and work with all maintenance vendors to ensure our building and grounds are operating at peak condition. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security staff will be located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. In addition to job specific training, our security staff also receive all training available to our full-time team detailed below.

The management team will continue to meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For an exhaustive list please see **Exhibit 3.**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the HSC.

The HSC will have an entryway off of Riverside Street down a well-lit and inviting walking path. There is a dual door system, as well as an external entrance to locker facilities. The dual door system will be monitored by security staff, who will also have access to view both external and internal security cameras on site. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on site.

There will be an enclosed side courtyard for clients who want to access a private outdoor space. The area contains space for outdoor eating and exercise as well as raised garden beds for clients to participate in growing vegetables and flowers. As an extension of our fenced-in courtyard, there will be fencing along the back of the property running parallel to the river to provide increased safety for our clients.

IV. Transportation

Homeless Services Center will include a City operated van as a shuttle service to clients. The shuttle will operate throughout the day to stop at service centers for appointments as well as get back to the facility. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize. In addition to the shuttle van the Homeless Services Center will continue the long standing practices of Oxford Street by using taxi vouchers, metro, and our current vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the HSC will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The HSC premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Clear sight lines will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

Cameras will be mounted externally for easy surveillance of the perimeter. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks. Camera monitors will be visible from the security office, which will be staffed. Cameras are also mounted in internal common spaces. Camera placement, lighting and staff monitoring recommendations came from a 2018 client survey.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 4 ***current contract) which clearly outlines the shelter rules and behavior expectations. This is reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire shelter population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The HSC presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed structural design impacts client success as well as the neighboring community. This HSC was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Greater Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 5** *current policy). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's Oxford Street Shelter Staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding being a good neighbor at intake. Additionally, we currently have a Neighborhood Engagement Strategy (please see **Exhibit 6** *current policy) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect HSC surroundings, the neighborhood and any neighborhood needs or concerns.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As mentioned above, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. The HSC staff will also have a 24 hour hotline (phone number) that connects neighbors

directly to the Homeless Service Center staff. Concerned neighbors are invited to call and discuss any issue, concern or compliment. Staff would also welcome the opportunity to attend any Neighborhood Association meetings.

IX. Monitoring:

The HSC management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee.

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly.

Exhibit 1: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Husky line
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Meals
- On-site health care clinic
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services

Exhibit 2: Service Providers Planning to Offer Services or Outreach On-Site[2]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - Public Health
        - Mobile Medical Project
        - Needle Exchange Program (NEP)
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[2] This list appears in alphanumeric order.

Exhibit 3: Staff Training and Professional Development[3]

- Anti-Trafficking Training
- Bloodborne Pathogens training
- Cardiac Science: AED All Staff Training
- Customer Service Training
- Diversity and Inclusion Workshop
- Emergency Action Plan training
- Equal Access to Housing training by GLAD
- First Aid and CPR
- General Assistance Training
- HMIS training
- Housing Training for Supervisors
- In their Shoes Refugee Training
- Introduction to Cultural Competency
- Kepro Training
- Language Access Training
- Mental Health First Aid Training
- Military Culture 101
- Munis Training
- Narcan/Overdose Reversal/Response Training
- National Alliance to End Homelessness Conference
- New Employee Orientation
- New Per Diem Training
- Public Charge Training by ILAP
- Rapid Resolution Housing Training
- Reasonable Suspicion for Supervisors
- Serious accident reporting
- Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health
- Tyler Training
- Understanding and Supporting LGBTQ Individuals
- Verbal Judo Training
- Violence Against Women Act training by Through These Doors
- Workers Compensation for supervisors

[3] This list appears in alphanumeric order.

Exhibit 4: Resident Contract

GUEST CONTRACT

The Oxford Street Shelter is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our Shelter. Any violations of our Shelter safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the shelter building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the shelter building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the shelter building or on the premises is strictly prohibited and could be grounds for restriction from access to shelter.
- **Weapons of any kind are not allowed in the shelter building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into any of the shelter buildings, waiting areas or overflow sites. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access to shelter.**
- No use of profanity/swearing. No loud music on property. No horseplay or aggressive behavior/language on property.
- **Use of inappropriate speech can result in restriction from shelter access. The shelter has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The shelter has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction from shelter access.**
- Sexual activity of any kind is not permitted in the shelter or on shelter grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the shelter and on the grounds. This includes wearing shoes while moving around the shelter.
- Cell phones must be silenced or turned off while in the building. Guest phones are available for use during daytime hours. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**

- Good personal hygiene is a priority. Showers are available after check in. Personal hygiene items are available upon request from staff at the front desk. The available personal hygiene items include: soap (in the showers), towels, toilet paper, shaving cream, toothbrushes, toothpaste, and combs.
- Outdoor restrooms are available between 8am & 8pm daily.
- Blankets, towels and linen must be returned and placed in the bins at the front desk on the 1st floor and may not be removed from the shelter.
- Personal linens such as: blankets, sheets and pillows, are not permitted in the building and are not to be used in the dorms.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- The shelter curfew (lights out) is at 8:30pm.
- Electronic devices that emit light and/or noise are not permitted to be used in the Shelter after lights out (8:30pm). Devices that do not emit light and are used with headphones and do not disturb other shelter guests may be permitted at the discretion of shelter management or the supervisor on duty.
- Once you have checked in and have been assigned a bed, you may leave the building but stay on property for up to 30 minutes. If you leave the building for more than 30 minutes, you will be considered to have left for the night. If others are waiting for bed space, the bed you were assigned may be reassigned to the next person waiting. If at any time you leave property you are at risk of having your bed stripped and reassigned. If you leave before 11pm and return you may be checked back in once. If you leave after 11pm you will not be checked back in.
- The shelter does not allow check-ins past 2am.
- All guests must be out of bed no later than 7:30am (earlier in some areas).
- The City is not responsible for lost and stolen belongings. Any items left behind or unattended will be discarded immediately. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- Shelter staff is not permitted to hold, monitor or administer medications for you. If you have medication that must be refrigerated, you will be able to store your medication in a refrigerator designated for medication storage only. You store your medications in this refrigerator at your own risk.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Lockers are available onsite. Please see a staff member to sign up. Lockers are only accessible from 5am-6am, 9am-10am, 1pm-2pm and from 8pm-9pm daily. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- Day services are available from 8:30am-3:30pm. You must check in on the ramp side of the property.
- The shelter dayroom is open Monday-Friday from 3:30pm-7:30pm. Hours may vary on weekends and holidays, or in case of inclement weather.
- Shelter ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests must attend housing orientation the day following their intake to the shelter for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please stay out of the street if outside of the courtyard area & respect our neighbors and neighborhood at all times.

Agreements

- I hereby accept shelter at the City of Portland Social Services Division Oxford Street Shelter and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.
- I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.
- I authorize the Social Services Division Oxford Street Shelter to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.
- I understand that Shelter management may restrict my access to Shelter if I turn down an option for housing.
- I understand that Shelter Staff and/or management may restrict my access to the Shelter, dayroom and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff relating to staff at the Shelter.

_____ _____

_____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 5: Reasonable Rules

OXFORD STREET SHELTER

SHELTER POLICY – REASONABLE RULES

The **Oxford Street Shelter** is a City run shelter for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in City run shelters. In addition, the City reserves the right to refuse admission to the shelter to any individual whose presence in the shelter is determined by the City to pose a danger to other individuals residing in the shelter or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in any shelter facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to shelter facilities or property or neighborhood
- Smoking is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 6: Neighborhood Engagement Strategy

OXFORD STREET SHELTER

Neighborhood Engagement Strategy

Staff of the **Oxford Street Shelter** are committed to maintaining a positive relationship with our surrounding neighbors.

Staff engagement to ensure that our program is maintaining a positive influence in the community:

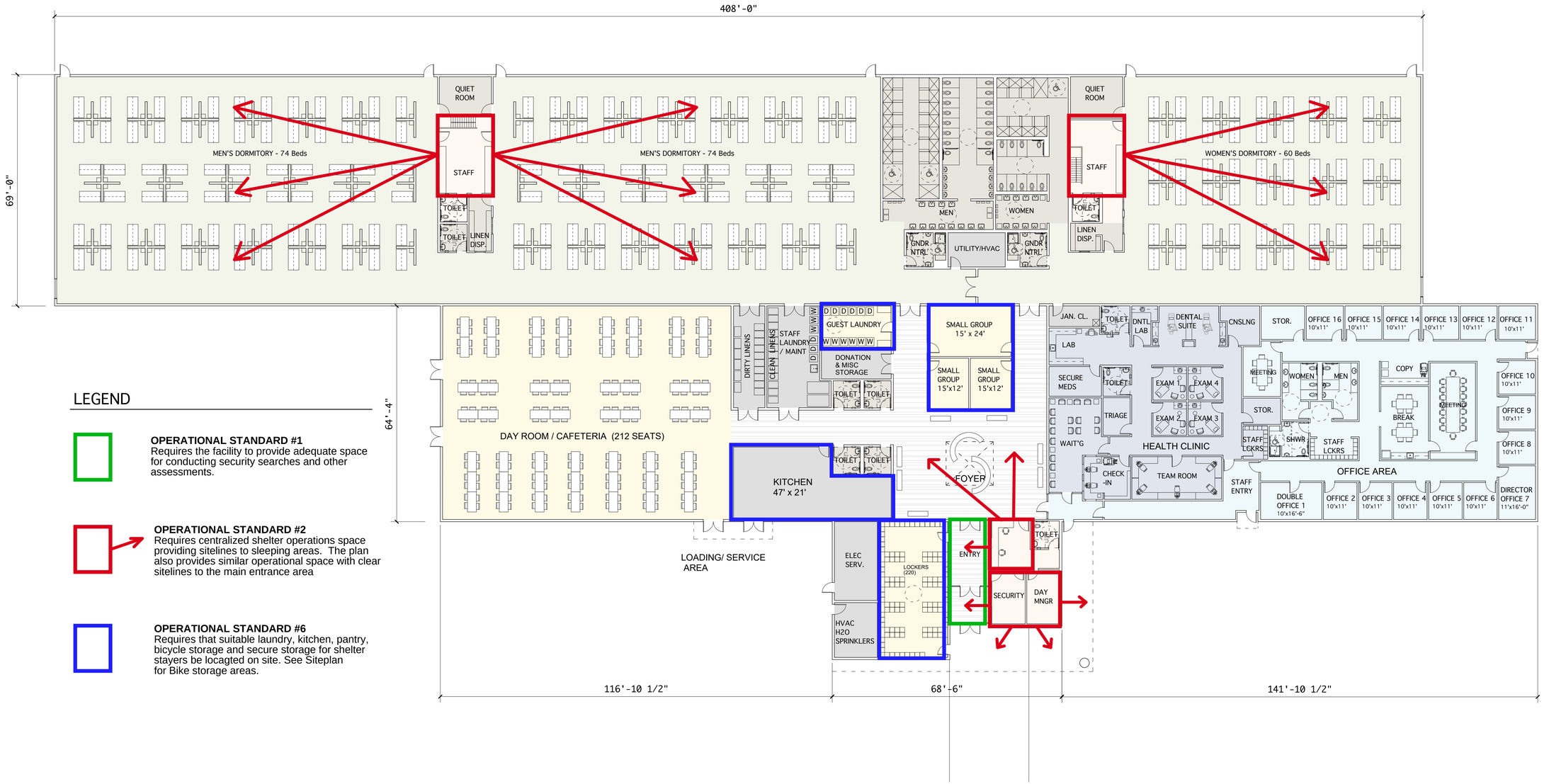
Staff maintain perimeter checks throughout the neighborhood on all of our 24 hour shifts. Staff have built and maintained good relationships with both clients and our neighbors and can assist in neighborhood issues as they arise.

The shelter runs a 24 hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving shelter guests along from neighbor's front steps, etc. and can decrease police calls for service.

The shelter operates an outdoor storage facility to allow guests to have a place to leave their belongings while going on housing showings, job interviews, etc. This also has decreased the amount of guest belongings that were stored amongst the neighborhood.

The shelter operates an outdoor bathroom facility, increasing the amount of facilities accessible to those we serve.

A representative of the shelter regularly attends the neighborhood association meetings.



LEGEND

OPERATIONAL STANDARD #1
Requires the facility to provide adequate space for conducting security searches and other assessments.

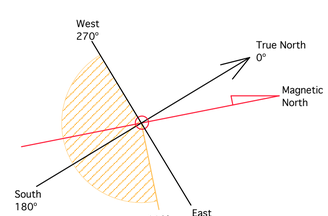
OPERATIONAL STANDARD #2
Requires centralized shelter operations space providing sitelines to sleeping areas. The plan also provides similar operational space with clear sitelines to the main entrance area

OPERATIONAL STANDARD #6
Requires that suitable laundry, kitchen, pantry, bicycle storage and secure storage for shelter stayers be locagted on site. See Siteplan for Bike storage areas.

OPERATIONAL STANDARDS KEY PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



WSA
Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Civil Engineering:
GORRILL PALMER

707 Sable Oaks Dr. #30
South Portland, ME 04106
T. 207.772.2515

Landscape Architecture:
ACETO LANDSCAPE ARCHITECTS

565 Congress Street
Portland, ME 04101
T. 207.221.3390

Structural Engineering:
STRUCTURAL INTEGRITY CONSULTING ENGINEERS

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614

Sustainability Consultant:
THORNTON TOMASETTI

14 York Street, Suite 201
Portland, ME 04101
T. 207.245.6061

CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street, Portland

BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

OPERATIONAL STANDARDS KEY PLAN

A1.2

JUNE 14, 2021

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST
Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW **

At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.

GENERAL APPLICATION DOCUMENTS		
(Yes)	NA	**Project Description** ● Cover letter with detailed project description
(Yes)	NA	**Completed Checklist** (this document)
(Yes)	NA	**Evidence of Right, Title, and Interest** ● Deeds, leases, or purchase and sales agreements
(Yes)	NA	**Evidence of State or Federal Approvals** ● Permits or letters of non-jurisdiction, if applicable
(Yes)	NA	**Zoning Assessment** (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
(Yes)	NA	**Site Plan Standards Assessment** (see Section 14.6 of the land use code) ● Summary of project compliance with site plan standards of the land use code
(Yes)	NA	**Summary of Existing and/or Proposed Easements or Covenants, applicable.** ● Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
Yes	NA	**Waiver Requests** (see Waiver Table) ● Written request for waiver describing request and compliance with applicable waiver standards
(Yes)	NA	**Financial Capability** ● Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
(Yes)	NA	**Technical Capability** ● Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION	
(Yes) NA	**Impact on Surrounding Street Systems (14-14.6.1(A))** ● Describe incremental volume of traffic impacts and mitigation measures. If needed
(Yes) NA	**Access and Circulation (14-14.6.1(B))** Identify and describe the following: ● Site access and internal circulation, including ADA access ● Drive-up features, if applicable ● Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable ● Sidewalks and condition along street frontages and internal walkways ● Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
(Yes) NA	**Public Transit (14-14.6.1(C)), if applicable** Identify and describe the following: ● Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
(Yes) NA	**Off-Street Parking (14-14.6.1(D)), if applicable** Identify and describe the following: ● Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code ● Curb cut separation and parking layout (Technical Manual, Section 1) ● Construction details for bicycle racks ● Management plan for snow storage and removal
Yes (NA)	**Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable** ● Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
(Yes)	NA	**Preservation of Significant Natural Features (14-14.6.2(A)), if applicable** Identify and describe the following: ● High and moderate value waterfowl and wading habitat ● Aquifers (for Casco Bay Islands) ● Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) ● Proposed preservation areas and protection measures ● Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
(Yes)	NA	**Landscape Preservation (14-14.6.2(B))** Identify and describe the following: ● Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) ● Measures to protect existing vegetation during construction
(Yes)	NA	**Site Landscaping and Buffers (14-14.6.2(C))** Identify and describe the following: ● Overall landscaping approach and consistency with standards ● The use of screening and buffering of service areas and between non-residential and residential uses ● Existing Heritage or Feature Trees on site and measures to preserve ● Compliance with street tree requirements
(Yes)	NA	**Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D))** Identify and describe the following: ● Erosion and sedimentation control plan and measures ● Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable ● Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY	
Yes NA	**Consistency with City Master Plans (14-14.6.3(A))** ● Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes NA	**Public Safety and Fire Prevention (14-14.6.3(B))** Identify and describe the following: ● Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) ● Emergency vehicle access ● Consistency with public safety standards (Technical Manual, Section 3)
Yes NA	**Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9)** Identify and describe the following: ● Electrical services, including providing underground services ● Existing and proposed connections for public utilities and required public utility upgrades ● Sewer line connections
SITE DESIGN	
Yes NA	**Massing, Ventilations and Wind Impact (14-14.6.4(A))** Identify and describe the following: ● Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable ● Bulk, location, or height impacts on adjoining structures
Yes NA	**Shadows (14-14.6.4(B)), if applicable** ● Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes NA	**Snow and Ice Loading (14-14.6.4(C))** ● Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes NA	**View Corridors (14-14.6.4(D)), if applicable** ● Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes NA	**Historic Resources (14-14.6.4(E)), if applicable** Identify and describe the following: ● The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district ● Compliance with standards for preservation and documentation of archaeological resources

(Yes) NA	Exterior Lighting (14-14.6.4(F)) ● Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
(Yes) NA	Noise and Vibration (14-14.6.4(G)) ● Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
(Yes) NA	Signage and Wayfinding (14-14.6.4(H)), if applicable ● Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs ● Provide drawings of all commercial and directional signage on site
(Yes) NA	Zone-Related Design Standards (14-14.6.4(I)) ● Address any applicable design review standards by zone, including compliance with Design Manual

CONDITIONAL USE – PLANNING BOARD REVIEW SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

Conditional uses are listed in the land use code for each zone. The applicant must address the general standards as well as any use- or zone-based conditional use standards contained in Article 6.5 of the land use code in the written application.

GENERAL APPLICATION DOCUMENTS		
Yes	N/A	**Project Description** • Cover letter with detailed project description
Yes	N/A	**Completed Checklist – Conditional Use** (this document)
Yes	N/A	**Evidence of Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
CONDITIONAL USE STANDARDS AND CRITERIA		
Yes	N/A	**Traffic** • Demonstrate that the volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the zone.
Yes	N/A	**Environmental Impacts** • Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
Yes	N/A	**Design and Operation** • Demonstrate that the design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
Yes	N/A	**Use- and Zone-Specific Criteria** • Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

RIGHT, TITLE & INTEREST

As outlined in City Council Order 281 – 20/21 the Portland City Council has authorized DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process. The following is an excerpt of the June 21, 2021, Council packet confirming the vote taken at the June 7, 2021 Council meeting.

"

Order 281-20/21 Approving and Authorizing First Letter Agreement with Developers Collaborative for the Homeless Service Center Project on Riverside Street - Sponsored by Councilor Spencer Thibodeau, Chair, Housing & Economic Development Committee

Motion was made by Councilor Thibodeau and seconded by Councilor Ray for passage. Passage 8-0 (Dion out).

"

The Record Owner of the property is the City of Portland by deed dated May 18, 2010 and recorded at the Cumberland County Registry of Deeds in Book 27825, page 68. A copy of the deed accompanies this section.

QUITCLAIM DEED WITH COVENANT

KNOW ALL MEN BY THESE PRESENTS, that **DOWNTOWN PORTLAND CORPORATION**, a Maine non-profit corporation with an address at Portland City Hall, 389 Congress Street, Portland, Maine 04101 (together with its successors and assigns, "Grantor"), for consideration paid, grants to **THE CITY OF PORTLAND**, a municipal corporation with an address of 389 Congress Street, Portland, Maine 04101 ("Grantee"), with QUITCLAIM COVENANT, a certain parcel of land, together with any improvements thereon, containing 40.9 acres, more or less, located on Riverside Street, Portland, Cumberland County, State of Maine, subject to all matters of record, including, but not limited to, that certain conservation easement granted to Portland Trails contemporaneously herewith, and being more particularly described in a Conservation Easement Plan recorded in the Cumberland County Registry of Deeds in Plan Book 210, Page 129, incorporated herein by reference.

IN WITNESS WHEREOF, Downtown Portland Corporation has caused this instrument to be executed in its name by Gregory Mitchell, its Assistant Secretary, thereunto duly authorized, this 18 day of May, 2010

WITNESS:

DOWNTOWN PORTLAND CORPORATION

By: Gregory Mitchell
Its: Assistant Secretary

State of Maine
Cumberland, ss.

May 18, 2010

Personally appeared the above named Gregory Mitchell, Assistant Secretary of the Downtown Portland Corporation and acknowledged the foregoing to be his free act and deed, in said capacity and the free act and deed of the Downtown Portland Corporation.

Before me,

#7990

~~Notary Public~~/Attorney-at-Law

Ann M. Freeman
Print or Type Name

Received
Recorded Register of Deeds
Jun 08,2010 08:59:38A
Cumberland County
Pamela E. Lovley

O:\OFFICE\ANN\DPC\636 riverside xfer from dpc to city.doc

ZONING ANALYSIS

See attached Zoning Analysis Table and project site plans for additional information.

ZONING ANALYSIS Relevant Zone(s) IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

NOT APPLICABLE

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size		
Minimum Lot Area per Dwelling		
Maximum # Units per Building		
Maximum Building Length		
Maximum Accessory Building Length		
Minimum Setbacks		
Minimum Building Separation		
Minimum Open Space		

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height			
Setback Reduction			
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

WAIVER REQUESTS

The Applicant is seeking the following waivers.

Standard to be Waived: Cite Ordinance or Technical Manual Standard	**Cite Standard Language:** Cite specific language of applicable Ordinance or Technical Manual Standard	**Waiver Being Sought:** Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20'.	**Justification for Waiver:** Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual Section 5.III – Chapter 500 Flooding standard	*MeDEP Chapter 500 provisions related to Stormwater management*	The applicant is seeking a waiver of the flooding standard, whereby stormwater water quantity control is not required.	The site discharges stormwater runoff to the low end of the Presumpscot River which is considered a major river segment therefore quantity control is not required. Water quality treatment will continue to be provided by means of various BMP's including undisturbed buffers within the adjacent City owned Conservation Land.
Section 14.6.1.E Transportation Standards requiring a Transportation Demand Management Plan (TDM)	*All Commercial, Institutional, or mixed use development of 50,000 SF or more total floor area shall design and implement a TDM plan*	The applicant seeks a waiver of the TDM as the development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time	The development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time.

FINANCIAL CAPACITY

The Applicant has the means at its disposal for financing the proposed Homeless Services Center project. A letter from Gorham Savings Bank is attached to this section as evidence of the applicant's financial capacity to undertake the development.

A breakdown of the preliminary project cost includes the following:

Construction and Site Work:	$17,380,000
Additional Furnishings:	$200,000
Soft Costs:	$1,646,335
Total	**$19,226,335**

These values are considered preliminary and approximate and are subject to change as building design and project layout is refined.

Gorham SAVINGS BANK
Banking is believing℠

June 18, 2021

City of Portland
389 Congress Street
Portland, ME 04101

RE: Homeless Service Center at 654 Riverside St, Portland, Maine

To Whom It May Concern:

We have been working with Developers Collaborative as well as Drew Sigfridson and Kevin Bunker on their proposal to construct a homeless service center at 654 Riverside St, Portland, Maine. Developers Collaborative is an established and valued customer of the Bank and has the financial capacity to complete this project. We are excited about their plans for 654 Riverside Street, Portland, Maine, and look forward to working with them in further support of the project.

Please feel free to contact me with any questions.

Sincerely,

Matthew W. Early
Senior Vice President

MWE/JRS

TECHNICAL CAPABILITY

The applicant has retained a highly qualified team of professionals to undertake planning, permitting and design tasks on this project. Services will be provided by the following companies and their respective team leaders:

Civil Engineer	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 707 Sable Oaks Drive South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
Architect	Steve Weatherhead, RA Winton Scott Architects 5 Milk Street, Suite #4 Portland, ME 04101 sweatherhead@wintonscott.com
Surveyor	Sebago Technics Charlie Marchese 75 John Roberts Road, Suite 4A South Portland, ME 04106 cmarchese@sebagotechnics.com
Geotechnical	SW Cole Engineering Tim Boyce PE 286 Portland Road Gray, ME 04039 tboyce@swcole.com
Landscape Architecture	Nick Aceto, PLA ASLA Aceto Landscape Architects PO Box 3787 Portland, ME 04104 (207) 221-3390 na@acetola.com
Construction Management	Cianbro Bruce Cummings and Tom Figura bcumming@cianbro.com/tfigura@cianbro.com

The team of consultants retained by developer has expertise and experience in the design of similar commercial projects. Resumes of key personnel for development team can be provided upon request.

The Applicant also has significant experience in the design, permitting, development and management of large institutional projects as evidenced in the team's proposal to the City.[1]

[1] See Response to Request for Proposal RFP #21041 dated April 27, 2021

TRANSPORTATION

The following statements are provided in accordance with the Section 14.6 Site Plan Review Standards of the ordinance.

TRANSPORTATION

14.6.1 Transportation Standards

Impact on Surrounding Street Systems 14.6.1(A)

- *Describe incremental volume of traffic impacts and mitigation measures. If needed*

The development will fit in with the existing street system as it will use a new driveway off Riverside Street. Riverside Street currently has a travel lane in each direction and a center two-way left turn lane for turning traffic into the site. The posted speed on Riverside Street is 35 mph. There are 8' wide paved shoulders on each side of the road. The available sight distance in each direction exceeds 500 LF which complies with the Technical Standards value of 305 feet for the 35 mph posted speed.

The proposed shelter will be operated 24/7 with staffing at all times. Staff on the site at any one time will be less than 50 persons thus the trip generation attributable to the development will be less than 100 trips in the peak hour, thus remaining below the threshold requiring a MaineDOT Traffic Movement Permit.

The next closest intersections to the development include the signalized intersection of Forest Avenue (Route 302) and Riverside Street to the north and the signalized intersection of Riverside Street and Warren Avenue to the south. The proposed shelter is not expected to impact the operations of either of these signalized intersections.

Access and Circulation 14.6.1(B)

- *Site access and internal circulation, including ADA access*
- *Drive-up features, if applicable*
- *Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable*
- *Sidewalks and condition along street frontages and internal walkways*
- *Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)*

(i) The development provides primary two-way access via Riverside Street. Internal circulation has been reviewed and designed to accommodate the typical use of passenger and emergency vehicles by means of the 24' wide main site driveway and a minimum 20' wide perimeter loop drive around the building. The applicant is proposing ADA parking at the front of the building for access.

(ii) There are no drive-up features proposed.

(iii) Access and egress have been designed to avoid conflict with existing turning movements and traffic flows. Please see AutoTURN diagrams included in Section 10.

(iv) Public sidewalks exist along the east and west sides of Riverside Street except for a short length on the west side of Riverside Street north of the proposed driveway entrance. The sidewalk on the east side of Riverside Street extends to Forest Avenue and ultimately to the existing transit stops located approximately 1600 LF from the site. The development will include a 12' wide paved pedestrian route extending from the Street into the site and to the building's main entrance. A Plaza space will be provided along this route for the use and benefit of the Shelter guests.

Public Transit Access 14.6.1(C), if applicable

- *Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter*

The site is served by nearby transit service on Forest Avenue. The METRO Route 2 includes outbound and inbound transit from the Portland Downtown to Prides Corner. There are several stops located in the vicinity of the Hannaford Store and Riverton. Similarly, the METRO Route 3 services connects Hannaford-Riverton-Westbrook- South Portland along East Bridge Street, Spring Street and the Maine Mall. The METRO Route 4 includes service along Brighton Avenue, south of the proposed shelter site. Exact details as to any shelter improvements at any of the existing transit stops along Forest Avenue have yet to be formulated with METRO but are anticipated to be discussed during upcoming meetings.

Parking 14.6.1(D)

- *Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code*
- *Curb cut separation and parking layout (Technical Manual, Section 1)*
- *Construction details for bicycle racks*
- *Management plan for snow storage and removal*

1. Vehicular Parking

The proposed project will include 43 parking spaces. This exceeds the value of 28-30 spaces required under the terms of the RFP #21041 that the City had issued. This parking capacity is expected to provide for both the anticipated staff load as well as guests/visitors to the site.

2. Bicycle Parking

The site plan currently identifies 10 bike spaces to satisfy the 8 bikes required (2 spaces/10 vehicles). Please see the Landscape plans by ALA for further information on the outside bike parking locations.

3. Snow Storage.

a. Snow storage management will employ two strategies:

1. On-site snow storage around the perimeter of the site as shown on the site plans; and
2. Snow removal and off-site storage.

4. Electric Vehicle (EV) Charging

The Applicant will be providing conduit for EV Charging stations for 20% of the parking spaces or 8 spaces.

Traffic Demand Management (TDM) 14.6.1(E), if applicable

- *Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements*

A TDM plan is not required for this project based on the use as an emergency/homeless shelter where the predominate means of access by guests will be foot traffic. .

ENVIRONMENTAL

The following statements are provided in accordance with the Section 14 of the Ordinance.

14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features 14-14.6.2(A), if applicable

- *Populations of trees and plants that are endangered or threatened*
- *Habitat for species*
- *High and moderate value waterfowl and wading habitat*
- *Aquifers on Casco Bay Islands*
- *Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains)*
- *Proposed preservation areas and protection measures*
- *Documentation from environmental compliance consultants and determinations from applicable state and federal agencies*

1. Preservation of Significant Natural Features:

a. The development site does not contain any significant natural features including wetlands of special significance, vernal pools or other protected resources. A forested wetland was identified within the conservation area located outside of the site boundaries. The site is nearly all covered with previously filled land that has reverted to grass and shrub vegetation naturally. No further evidence will be provided for the current application, unless requested.

B. Landscape Preservation 14-14.6.2(B)

- *Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4)*
- *Measures to protect existing vegetation during construction*

1. The site's existing tree coverage is sparse due to the nature of the historical placement of fill across the site. There are no specific trees earmarked for preservation as a result of these site conditions.
2. The majority of the development footprint lies within previously filled land.

C. Site Landscaping and Buffers 14-14.6.2(C)

- *Overall landscape approach and consistency with standards*
- *The use of screening and buffering of service areas and between non-residential and residential uses*
- *Existing heritage or Feature Trees on site and measures to preserve*
- *Compliance with Street Tree requirements*

1. Landscaping

The proposed landscape plan meets (and exceeds) the Site Plan review standards in Section C of the Technical Manual. The applicant is proposing a mix of shade and flowering trees—as well as shrubs, ornamental grasses, and perennials—along development frontage and at the site's interior

that will add aesthetic interest, ecological value, and scale to the proposed development. All proposed trees are listed in the City of Portland Recommended Tree List. Due to the site's current use as filled land, there are no existing trees or vegetation that need preservation.

2. *Buffers:*

There are no service or loading areas observable from nearby sidewalks or residential properties and trash and recycling will be contained within a solid screened enclosure. Various new tree plantings consisting of both evergreen and deciduous will be planted along the shared boundaries with the Lucas Tree Experts site and the Suburban Propane site, both located along the southerly sideline shared with those uses.

(a) The City is the owner of the conservation land along the north and west sides of the property. The existing woods within these areas will remain as a permanent buffer to at least ½ the property perimeter.

(b) Not applicable

(c) Evergreen tree plantings will be placed along the shared boundary with the Lucas Tree experts.

3. *Parking and Vehicle Display Lot Landscaping*

The applicant is proposing a mix of shade trees, ornamental trees, and shrubs in the plaza spaces and around the site perimeter. The parking lot will be screened from view from Riverside Street and surrounding property primarily due to distance and grade change from the street.

4. *Street Trees*

The proposed development has less than 100 feet of street frontage. Trees are proposed along the entrance drive with several located just off the Riverside Street right of way.

D. Water Quality, Stormwater Management and Erosion Control 14-14.6.2(D)

1. The proposed development results in 150,041± SF (3.44 ac) of proposed impervious area. This includes 51,690 SF of building roof and 98,351 SF of hard surfaces associated with pavement, plaza, and sidewalks. The stormwater management design will include measures to comply with the water quality treatment standards. A waiver is requested of the stormwater flooding standards since the site is directly tributary to the Presumpscot River, which is considered a major river segment. The development site is located at the lower end of the overall river watershed and thus the need for flood controls are not necessary as the hydrologic peak flow condition for the site are substantially sooner than the overall watershed peak. The approach to not control the site's increased runoff discharge is commonly referred to as "beat the peak" approach. Since the site's runoff will only cross over City retained land before entering the river, there are no issues for downstream flooding. Similar waivers of the flooding standards have been granted for other properties along Riverside Street, including the Second Tee Business Park for example and the Suburban Propane site.

For water quality treatment one primary measure for treatment will be the use of level spreader outlets to disperse runoff over a wide area to allow sheet flow over the adjacent conservation areas. These measures are outlined in Chapter 5 of the MaineDEP Stormwater Management BMP Manual. In addition to the use of the vegetated buffers, the site design may employ additional BMPs including rain gardens and other filtration BMP's into the overall management approach.

2. The proposed project will comply with the City's stormwater management standards of the Technical Manual. The project will employ various Best Management Practices including undisturbed vegetated buffers, rain gardens and/or filtration BMP's.

3. The development will include some amount of runoff infiltration into the underlying ground as water passes over the undisturbed vegetated buffers. This is due to the absorption capacity of the onsite soils and the depth to groundwater. This is a benefit/advantage of the site and the ability to provide some amount of infiltration practices as part of the Stormwater Management regime.

STORMWATER MANAGEMENT REPORT
(GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC/CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021

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STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed City Homeless service center on an undeveloped 7.01-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

Total Area of Site: Lot 4-2 = 7.01 acres (305,505 sf)
Total Site Area to be Disturbed: Approx. 5.2 acres
Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
Total Impervious Area After Construction: 150,041 SF (3.44 acres)

Prop Building: 51,690 SF
Prop Pavement: 61,734 Sf
Prop Sidewalk: 8,538 Sf
Prop. Plaza Area: 9,119 Sf
Prop. Pavement Flex Area: 11,067 SF
Prop. Raised Gardens/Social Spaces: 5,033 SF
Prop. Pavilion/Outdoor Seating: 2,860 SF

This section of the Major Site Plan Application presents the Stormwater Management Plan designed for the project activities. The stormwater management design presented herein will show that the site will meet the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to these lower watershed conditions, **the applicant is requesting a waiver of the flooding standards as has been previously granted for projects in this area of Portland**. As discussed below the site's current conditions are characterized by filled land that has been substantially naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs and duff cover. Slopes associated with the manmade fill limits vary from 6 to 15% down to a flatter zone along the river.

The proposed stormwater quality treatment approach primarily utilizes the 'Vegetated Buffers' approach listed in the Maine Best Management Practices (BMPs) to meet the stormwater quality standards required under the general standards as outlined in the adopted MeDEP Chapter 500 Stormwater Management Technical Manual. The site's surrounding vegetated buffers are intended to provide water quality treatment for close to 100 percent of the proposed development area. We believe the site's conditions including the existing conservation land that lies between the site and the river is an ideal opportunity to utilize level spreaders and

dispersed runoff flow along the site's perimeters so that these waters will sheet thru the heavily forested buffers where soil and vegetative absorption can occur prior to entry into the river.

2.0 EXISTING SITE CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.

- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Sebago Technics has previously completed a topographic survey of the property. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the property.

The site's runoff either infiltrates into the ground or drains downslope directly to the Presumpscot River via overland flow. There are no apparent drainage systems on site, although there is a closed storm drainage system within Riverside Street.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Shelter site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

ONSITE

A 51,000 SF single story shelter facility will be constructed and site improvements will include 43 parking spaces, a primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a perimeter drive around the building for emergency and maintenance access. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions that will comply with the MeDEP VRAP program.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003* http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the flooding standards is requested, no formal hydrologic analysis using HydroCAD has been performed.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

- That detention will not be required to reduce the peak flow rate or meet the flooding standards. **A waiver of the flooding standards is requested on the basis that similar waivers have been granted in the past for development in the nearby vicinity.**
- That the filled soils and the native soils in the surrounding conservation area will have infiltrative properties that meet the requirements of the Maine DEP Vegetative buffer BMP's proposed. Note: **A waiver is being sought for infiltration testing**.

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010).
- Designing water quality measures including vegetative buffers, level spreaders and raingarden pretreatment to provide long-term removal of non-point contaminants.
- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual (to be provided as a separate document).

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

Approach

To meet the General Standards, our office reviewed the list of options of MeDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including grassed underdrained filter, bio-filter, vegetated buffers, proprietary devices, and infiltration trenches for the site. Following this review and incorporating knowledge of the site and the goals of the project, it was realized that developing a method for providing stormwater quality treatment that utilizes the surrounding undisturbed vegetated forested buffers for dispersing sheet flow and allowing as much runoff infiltration as possible into the underlying soils would be preferable

both functionally and economically. According to the MaineDEP BMPs this is known as a "Vegetated buffer" approach to stormwater quality treatment.

The use of buffers will require careful collection and dispersing of runoff via level spreaders at various locations along the site's downhill perimeter.

The basis of design of treatment method is as follows:

Compliance with BMP Design Criteria:

Size Suitability:

The overall site is 7 acres and developed area will be approximately 5 acres. The proposed buffers consist of heavily forested conservation land downhill of the site. There are several areas of concentrated ravine type conditions that will need to be avoided for the release of water from various level spreaders. There are however also many zones where a level spreader can be positioned to release water into a sheet flow condition thru the buffer zones. The slopes downhill of the site vary from 3% to as steep as 15% which is the upper limits for buffers. Steeper slope conditions will be avoided. The soils in the site are all controlled fills. The native soils further downgradient in the buffer zones consist of clays, tills and sands. The existing buffers appear to have a significant forest duff layer that during the current summer conditions supports a very heavy ground cover in many areas that is challenging to navigate thru. The buffers will not include any streams.

Buffer Design:

The initial examination of site conditions yields a finding that the buffers should be suitable for use to treat dispersed runoff from the development site. Additional information on level spreader design, pretreatment and the specified buffer dimensions will be provided in a supplemental memorandum to this report prior to the first Planning Board Workshop.

Vegetative cover:
The buffers are heavily wooded generally throughout.

Maintenance:

The buffer areas and ancillary collection and conveyance measures will require maintenance to assure erosion and sediment transport is avoided and that systems retain their design function of the capture and release of stormwater runoff from the site.

Pretreatment

Pretreatment in the form of rain gardens, stabilized sumps and similar capture devices will be integrated into the design to aid with the removal of heavier sediments, trash, debris etc. prior to the release of runoff into sheet flow into the buffers.

Separation to Groundwater:

Based on the test pit data included in previous subsurface explorations, the groundwater table throughout the site is six to nine feet below existing grade thus there is ample separation from any underlying groundwater resources

Infiltration Testing:

The applicant is seeking a waiver from the infiltration testing requirement. The applicant has observed the existing site after heavy rain events and not observed ponding. The existing site has an uncontrolled layer, and it is expected that the proposed non-impervious surfaces will not negatively impact any infiltration properties below.

Flooding Standard:

Due to the direct discharge to the Presumpscot River, **a waiver from the flooding standard is being requested**.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.44 acres of impervious surface. The proposed disturbed area will be about 5.2 acres. Level Spreaders dispersing runoff to the downhill undisturbed vegetated buffers will be more than sufficient to meet the standards for roof treatment which are generally tied to thermal treatment when a non-asphalt roof is proposed, as is the case for this building.

The proposed stormwater management plan provides treatment for nearly all the development area as site generated runoff will be collected and dispersed over the ground to the downhill buffers zones. Hence, the strategies proposed herein meets the minimum requirements stated in the General Standards. Again, the absorption of runoff from the building roof will result in thermal cooling before the water enters the Presumpscot River.

11.0 EROSION CONTROL

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are part of the plan set. The measures to be used include perimeter sediment barrier placement, careful placement of stockpiles and use of soils cover systems.

12.0 OPERATIONS AND MAINTENANCE

An Operations & Maintenance Manual will be prepared upon the acceptance of the proposed vegetated buffer system.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

The following statements are provided in accordance with the submission and Section 14.6.3 of the ordinance.

Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans 14.6.3.A

1. The proposed development is consistent with the previously approved Amended Subdivision Plan that contemplated development on the approximately 7 acre property. The site is ideally situated to benefit from public infrastructure for utilities, vehicular and pedestrian access as well as nearby public transit on Forest Avenue.

2. The Applicant has coordinated with utility representatives for the maintenance of easements related to utility infrastructure crossing the site. These easements include drainage benefitting the Suburban Propane Site as well utility service to the City owned communications tower. The City will be engaging their survey consultant to assist with any updates/amendments to the overall Riverside Subdivision Plan.

B. Public Safety and Fire Prevention 14-14.6.3(B)

- *Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3)*
- *Emergency vehicle access*
- *Consistency with public safety standards (Technical Manual, Section 3)*

a. The site has been designed to promote a safe and inviting visitor experience. All pedestrian paths and outside gathering spaces have been positioned to maintain visibility and consider safety for the users.

b. The primary site access will be off Riverside Street. The entrance drive will connect directly to the front building entrance whereby allowing the building staff reasonably clear vision to vehicles coming and going into the property.

c. The site plan includes emergency vehicle around the site perimeter.

C. Availability and Adequacy of Public Utilities 14.6.3(C) (Technical Manual, Sections 2 & 9 9)

- *Electrical services, including providing underground services*
- *Identify existing and proposed connections for public utilities and required public utility upgrades*
- *Sewer line connections are required, if there is a main within 200 feet*

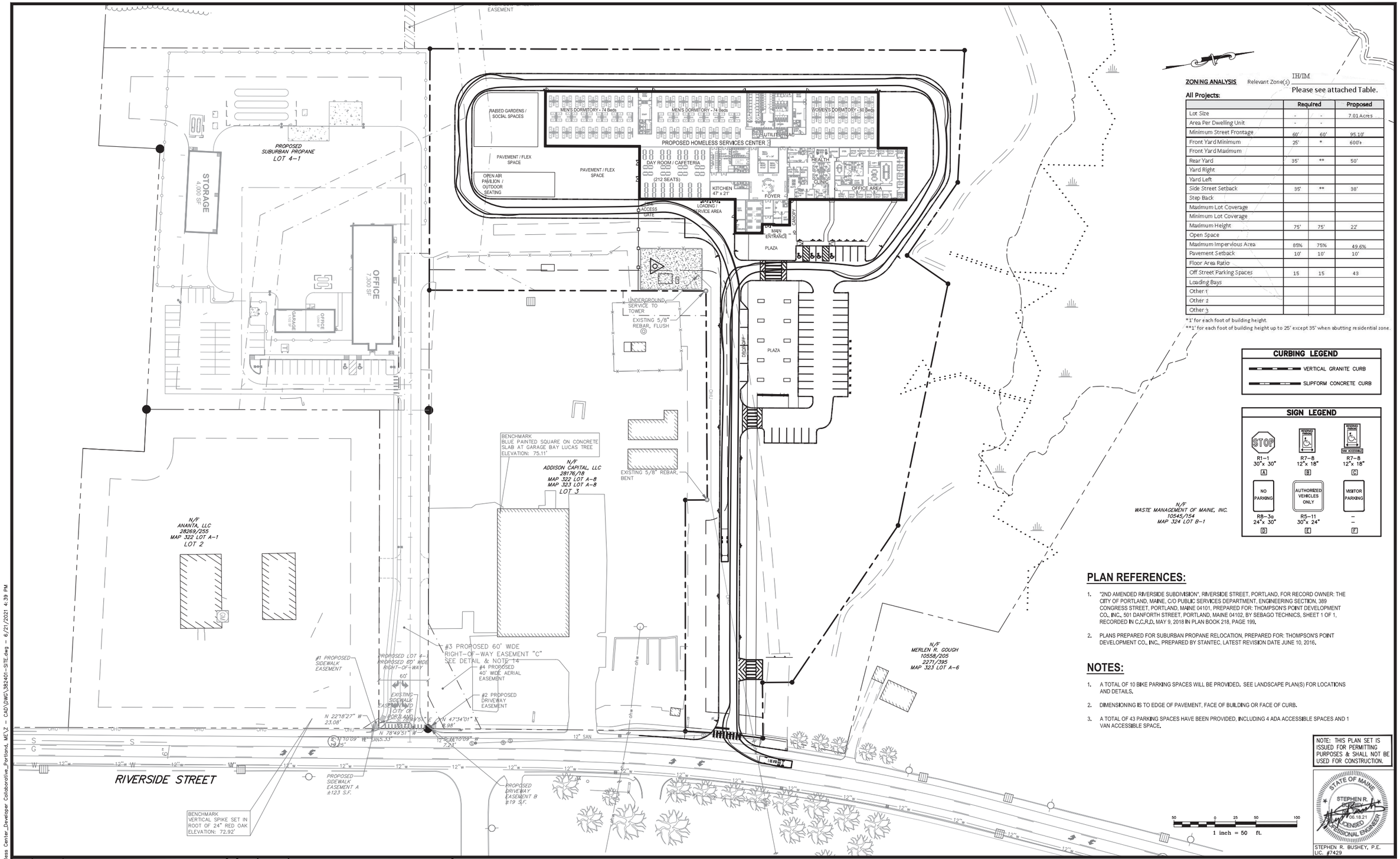
a. The Applicant is coordinating with the onsite utility providers and will forward capacity to serve letters upon receipt. Existing utility systems in Riverside Street include:

- 12" water main
- 12" gravity sewer line
- Overhead three phase power
- Overhead communications lines
- High pressure gas main

b. All electrical and communications feeds are underground on the property.

c. A new sewer connection to the existing 8" gravity main in the Suburban Propane right of way is proposed. The wastewater collection system design has been prepared to comply with the City's technical standards. The building will include a kitchen facility; however, all meals will be prepared at an offsite location and no substantial cooking activity will occur on site. A grease tank is not required as a result. The development team will discuss the need for any solids handling equipment at the site and if needed employ the use of such equipment into the gravity sewer design.

d. The site will include a solid waste and recycling enclosure area for the placement of trash collection cannisters. A contracted waste hauler will be responsible for the removal of all waste on a routine basis.



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

STOP R1–1 30"x 30" A	RESERVED PARKING R7–8 12"x 18" B	RESERVED PARKING VAN ACCESSIBLE R7–8 12"x 18" C
NO PARKING R8–3a 24"x 30" D	AUTHORIZED VEHICLES ONLY R5–11 30"x 24" E	VISITOR PARKING – – F

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E. LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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SITE DESIGN

The following statements are provided in accordance with the submission and Section 14 of the ordinance.

Site Design Standards 14.6.4

A. Massing, Ventilations and Wind Impact 14.14.6.4(A)

- *Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable.*
- *Bulk, location or height impacts on adjoining structures*

a. The bulk, location, and height of the proposed building will not result in any impacts to adjacent sites or buildings. The proposed building will be less than 25' in height and it will be positioned away from nearby structures. The closest structures are the City's communication tower and the buildings on the Suburban Propane Site and Lucas Street Experts site.

b. Based on the positioning of the new building there is expected to be no diminution in value or utility of nearby properties. The proposal is consistent with the previously approved Amended Subdivision plan. The land use is a conditional use for the IM/IH zones.

c. HVAC venting will be directed through building roof top mounted units and does not impact any adjacent public spaces or residential properties.

B. Shadows 14-14.6.4(B), if applicable

- *Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)*

a. The proposed building will not cast significant shadows onto neighboring properties, or block access to direct sunlight for structures utilizing solar energy.

C. Snow and Ice Loading 14-14.6.4.(C)

- *Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways.*

a. The proposed building has been designed and located such that accumulated snow and ice will not fall onto adjacent properties or public ways. Snow will be removed from the parking lots and stockpiled within the site perimeter or if necessary, removed from the site.

D. View Corridors 14-14.6.4(D), if applicable

- *Protection of designated view corridors (Portland Design Manual, Appendix 1)*

a. The project site is located outside the Downtown Vision Corridor Protection Plan.

E. Historic Resources 14-14.6.4(E), if applicable

- *Identify developments within Historic Districts or affecting Designated Landmarks*
- *Certificate of Appropriateness or other evidence*
- *Identify Developments within 100 feet of Historic Districts or affecting Designated Landmarks. Advisory HP review may be required*
- *Address preservation and documentation of Archaeological Resources*

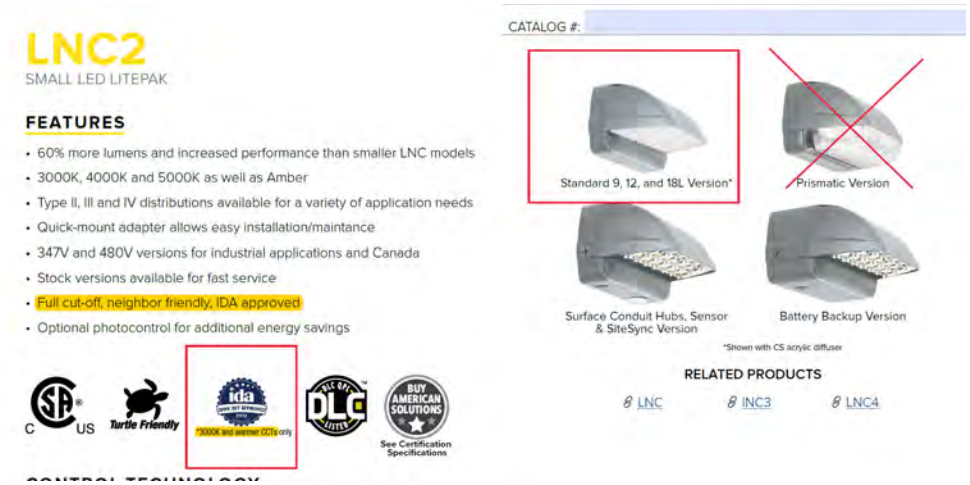
The development site is not within any Historic District nor contains any historic or significant related resources.

F. Exterior Lighting (14-14.6.4(F))

- *Cut sheets of on-site light fixtures and any architectural or specialty lights (Technical Manual, Section 12)*
- *Engineered details for any lights proposed in street right-of-way (Technical Manual, Section 10)*

a. Site Lighting

The proposed site parking lot lighting will be consistent with City's standards. This includes 20-foot area light LED fixtures, with 90 degree cutoff shields. (Beacon Viper S). Building mount lights will be LNC2 by Hubbell



b. Architectural and Specialty Lighting

(i) Architectural and specialty lighting may include bollard lights along walkways.

c. Street Lighting

There are existing streetlights along Riverside Street. The applicant not proposing new street lighting.

G. Noise and Vibration 14-14.6.4(G)

- *Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements*

All new HVAC equipment will be located greater than 100 feet from any nearby residential uses. No equipment will be located within 25 feet of a property line. All new equipment will meet the City standards for noise at the property lines.

H. Signage and Wayfinding 14-14.6.4(H), if applicable

- *Signage plan showing the location, dimensions, height and setback of all existing and proposed signs*
- *Proposed commercial and directional signage on site*

1. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code. Internal City coordination is underway for the placement of both onsite and offsite signage.

I. Design Standards 14-14.6.4(I)

- *Address any applicable design review standards by zone - Residential developments, shall integrate with and respect the character of surrounding residential development in terms of architectural form, landscaping and open space, façade materials, roof pitch, massing, and height.*

The site is located in the IM/IH Zoning Districts. The building is oriented to provide a primary entrance from Riverside Street. Major land uses adjacent the property include:

- Lucas Tree Experts that include various metal buildings and stockyard;
- Suburban Propane including offices, propane storage tanks and other support structures;
- Schnitzer recycling that includes large metal recycling stockpiles and related outdoor storage of materials for recycling;
- Seacoast Scaffold & Equipment – industrial use; and
- Communications towers on the site and on the Lucas Tree site.

Building Design:

The new Homeless Services Center proposed for the property at 654 Riverside Street is a 50,000 s.f. single story building based on the program requirement's provided by City RFP that also seeks to satisfy the operational standards in the ordinance for shelters located in zones that allow shelters as a conditional use.

The site is in an Industrial Zone surrounded by commercial and industrial type uses to the east, west, and south. To the north is a wooded area extending to the Presumpscot River that also serves as the City limit line with neighboring Westbrook.

There are no residential developments directly adjacent to the site or access roads to residential areas from this portion of Riverside Street. The Riverton Place neighborhood accessed off of Forest Ave is nearby as is the Riverton neighborhood just south of the Maine Turnpike also accessed from Forest Ave but neither are visually connected to the site.

It would seem that a large one story facility that contains residential functions but also contains a significant area of office and clinic space is a very different typology than a residential development of single family homes and multi-unit apartment buildings and therefore it is difficult to make relevant comparisons of architectural language and massing.

However, there are many design elements that the building types can share and that are proposed for this development:

- The building is single story and utilizes a combination of small, scaled windows and larger glass walls to bring in natural light and connect the building to the outdoor areas.
- The site has been developed in a way that prioritizes pedestrian movements including a central pedestrian circulation spine that intersects a pedestrian plaza and leads directly to the front entrance of the facility. Also ample places for storing bikes are provided.
- The front entrance is articulated by a large covered porch area that makes the building human scaled and articulates the entrance.
- The project includes extensive development of outdoor space for recreation, lawns, and raised bed vegetable garden areas.
- The site will also be improved with extensive landscaping including trees along the property lines to screen adjacent industrial uses as well as plantings around the building and outdoor recreation areas for visual interest.

CONDITIONAL USE STANDARDS

In accordance with Section 6.5.2 General Conditional Use Standards we offer the following supporting evidence:

A *The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone.*

Supporting Evidence: The proposed shelter is expected to produce less than 100 peak hours trips based on the staffing of fewer than 30 persons and the fact that shelter guest/visitors will most often not have a private vehicle for transportation. The site will have only 43 parking spaces for passenger vehicles. By comparison nearby development includes the Lucas Tree Experts site that often has more than 25 company vehicles including large trucks and a similar number of staff passenger vehicles parked and generating traffic. The nearby Schnitzer property has greater than 30 parking spaces and over 4 acres of impervious area.

The proposed pavement area will be approximately 151,456 Sf or 49.6% coverage which is considerably lower than the 75% allowed in the IM zone and 85% allowed in the IH zone.

B. *The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.*

Supporting Evidence: The proposed shelter is intended to provide for the safe and comfortable temporary housing of homeless guests and by its nature will not be the producer of excessive noise, glare, dust or emissions. The site will be served by public sewer and water systems. The site will contain lighting coverage that is compliant with the City's standards. This includes lights of appropriate height and separation to avoid any glare or spillover of lighting onto nearby residential properties. Measures for the collection and disposal of litter will be provided and maintained on the property. The site is located in a relatively densely developed commercial corridor along Riverside Street and surrounding land uses are considered more intensely developed than the Shelter site proposed.

C *The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.*

Supporting Evidence: The development site will have a single access from Riverside Street into the property. The building has been positioned to include a loading area for deliveries and related building support services. The site is relatively well screened on the east and north sides by an existing large tract of undeveloped wooded conservation land. A landscaping plan has been developed that offers ample outdoor space for shelter guests as well as new landscaping that will provide aesthetic appeal, improved buffering and screening, and solid waste collection and management. There will be no materials storage associated with the use, although nearby uses involve substantial outdoor materials storage. Nearby land uses including two communications towers, a recycling facility, a propane fuel depot and other uses on Riverside Street represent far more intense land development.

D. The proposed use will meet any additional zone or use-specific standards identified in Tables 6- A to 6-F and Subsections 6.5.6 and 6.5.7

Supporting Evidence: Table 6-E applies to the site and it lists Emergency Shelters as a conditional use in the IM/IH zones. It references the Use Standards in Section 6.5.6(B).

In accordance with Section 6.5.6 Supplemental Use-Specific Conditional Use Standards pertaining to Emergency Shelters we offer the following information:

B. Emergency Shelters

1. The facility shall provide adequate space for conducting security searches and other assessments.

Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

2. The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.

Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

3. A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.

Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

4. *Adequate access to and from METRO service shall be provided. The facility shall be within a ¼ mile of a METRO line, or shall be within ½ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.*

   Supporting Evidence: The site is located approximately 0.3 mile from the transit stops of the METRO Route 2 along Forest Avenue. The building will provide for indoor space to permit shelter guests day shelter.

5. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

6. *Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.*

   Supporting evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

   Supporting Evidence: The Site plan contains a plaza at the front of the building where guests may congregate. A second plaza area is also located to the south side of the building and that will contain space for guest to congregate, socialize and participate in activities.

CONSTRUCTION MANAGEMENT PLAN

A Draft Construction Management Plan has been prepared and is included with this section.

Portland Shelter Construction Logistics Plan

Secondary Gate

Porta Potty & Dumpster Location

Subcontractor Parking Area & Lay Down Area

Construction Boundary Fence

Construction Office Trailers

Cianbro & Visitor Parking

Main Gate

Construction Access

LOT 4-2
AREA: 7.01 ACRES

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 80 Beds

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH CLINIC

OFFICE AREA

UTILITY/HVAC

LOADING / SERVICE AREA

MAIN ENTRANCE

CANOPY

PLAZA

8 SPACES

14 SPACES

14 SPACES

7 SPACES

PLAZA

RAISED GARDENS & SOCIAL SPACES

PAVEMENT / FLEX SPACE

SEE LANDSCAPE PLANS FOR YARD AREA DESIGN

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION W/ OUTDOOR SEATING

OPEN AREA

FIRE ACCESS GATE

6" BOLLARD, TYP.

10' MIN. PAVEMENT SETBACK, TYP.

5' WIDE BITUMINOUS

20' WIDE RAISED CROSSWALK

HARD SURFACE PLAZA AREA - SEE LANDSCAPE PLANS FOR DETAILS

STANDARD-DUTY PAVEMENT, TYP.

12' WIDE RAISED CROSSWALK

24' WIDE PAVED ACCESS DRIVE

8' WIDE ESPLANADE

12' WIDE BITUMINOUS SIDEWALK

SLIPFORM CONCRETE CURB (TYP.)

12' WIDE RAISED CROSSWALK

GUARDRAIL

EXISTING OVERHEAD LINES TO REMAIN

EXISTING PARKING FOR TRAIL TO REMAIN

TIPDOWN

PROPOSED GRANITE CURB

TIPDOWN

L=95.10' R=990.18'

REMAINDER OF LOT 4
CONSERVATION EASEMENT AREA
21.79 ACRES

EXISTING PROPERTY LINE

INVERT OUT 15" HDPE 52.16'

WETLANDS FROM SURVEY PLAN REFERENCE 6A

N/F WASTE MANAGEMENT OF MAINE, INC. 10545/154 MAP 324 LOT B-1

N/F MERLEN R. GOUGH 10558/205 2271/395 MAP 323 LOT A-6

N/F ADDISON CAPITAL, LLC 28176/18 MAP 322 LOT A-8 MAP 323 LOT A-8 LOT 3

N/F ANANTA, LLC 28269/255 MAP 322 LOT A-1 LOT 2

PROPOSED SUBURBAN PROPANE LOT 4-1

STORAGE 4,000 SF

OFFICE 7,300 SF

GARAGE 1,100 SF

OFFICE

EXISTING EASEMENT LINE

16' EASEMENT

30' WIDE DRIVEWAY EASEMENT

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

EXISTING 5/8" REBAR, BENT

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

#1 PROPOSED SIDEWALK EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

PROPOSED LOT 4-2 PROPOSED 60' WIDE RIGHT-OF-WAY

EXISTING SIDEWALK EASEMENT HELD BY CITY OF PORTLAND

PROPOSED SIDEWALK EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

EASEMENT "C" POINT OF BEGINNING

N 314842.65
E 2911099.35

N 314783.78
E 2911087.73

RIVERSIDE STREET

WOOD SIGN POST

WOOD SIGN POST

METAL POST

METAL POST

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1-1 30"x 30" [A]	R7-8 12"x 18" [B]	R7-8 12"x 18" [C]
NO PARKING R8-3a 24"x 30" [D]	AUTHORIZED VEHICLES ONLY R5-11 30"x 24" [E]	VISITOR PARKING – – [F]

PLAN REFERENCES:

1.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

50 0 25 50 100
1 inch = 50 ft.

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Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

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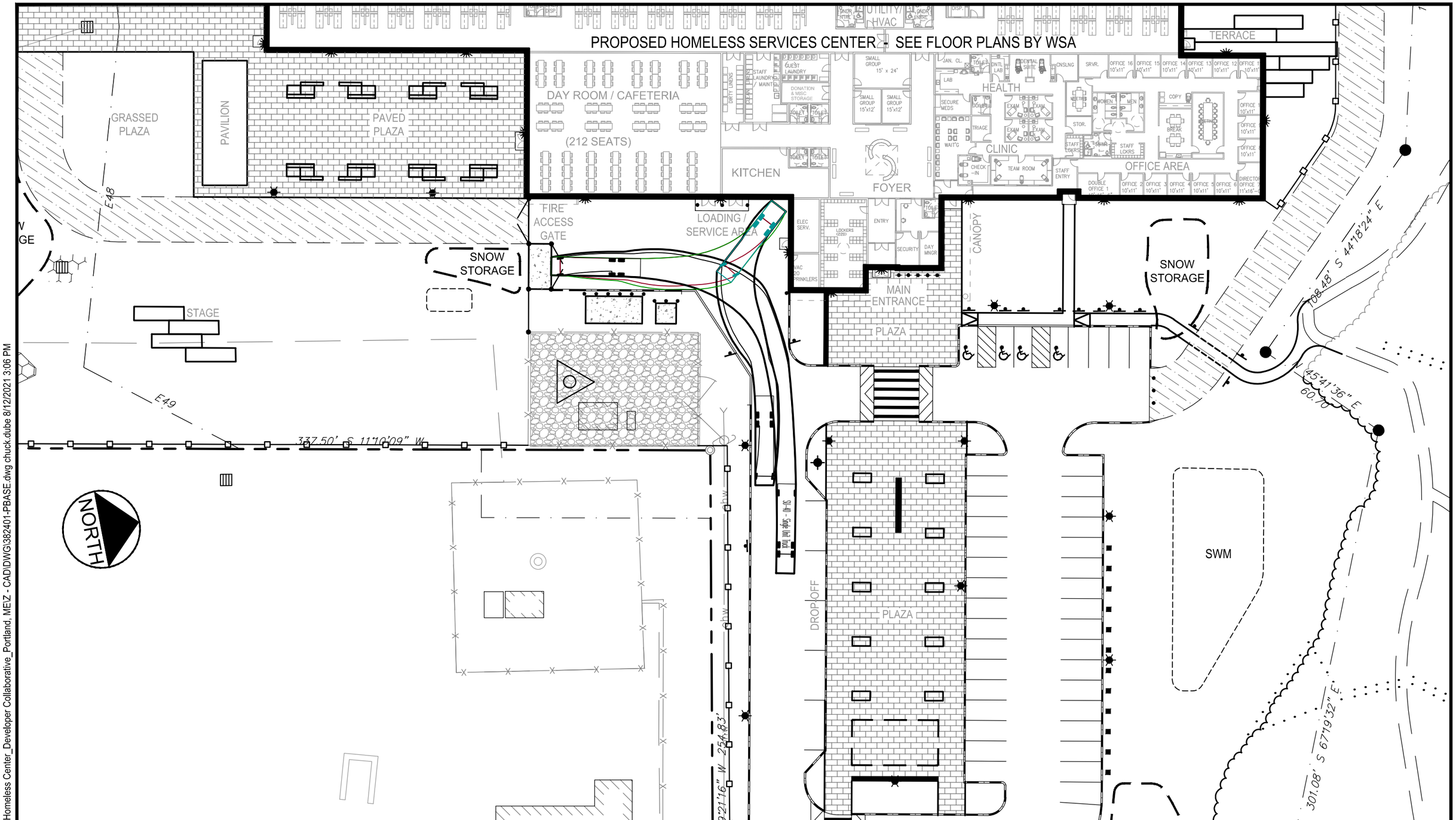
Drawing Name: CONSTRUCTION MANAGEMENT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Figure A

ATTACHMENT B



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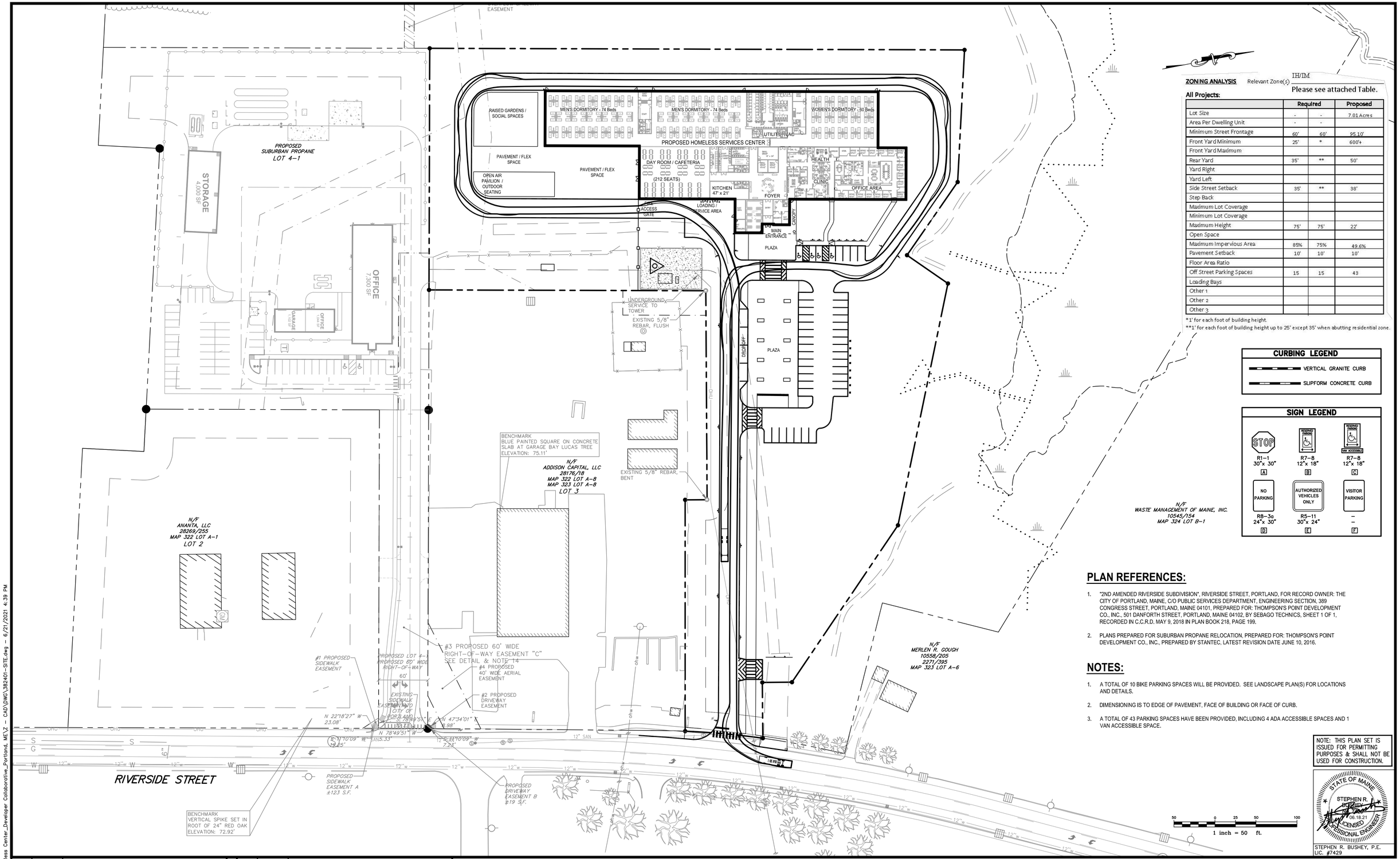
DRAWN:	CDD	DATE:	AUG. 11, 2021
DESIGNED:	SRB	SCALE:	1" = 40'
CHECKED:	SRB	JOB NO.	3824.01
FILE NAME:	382401-XBASE		

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET, PORTLAND, MAINE

GARBAGE TRUCK ACCESS / TURNING MOVEMENTS

FIGURE
1



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1–1 30"x 30" [A]	R7–8 12"x 18" [B]	R7–8 12"x 18" [C]
R8–3a 24"x 30" [D]	R5–11 30"x 24" [E]	– – [F]

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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ATTACHMENT C

Winton Scott Architects

City of Portland Homeless Services Center
Response to Design Review Comments received from Planning staff on 7/7/21
& Planning Board Workshop #1

8/9/21

Design Team Response:

The design review comments provided by city planning staff focus on the "Two-Family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards" (Section (d) of the Design Manual. Additional design comments were provided at the Planning Board Workshop.

Standard 1- Exterior Design

Staff comments noted that the building as designed "includes variation in the roofline and a mix of fenestration, materials, awnings, canopies to provide variation and visual interest". Additional information on proposed materials was requested and it was suggested that windows be added to the front facade of the locker room adjacent to the main entrance.

Planning Board design comments included:

-Building could be more inviting
-Building looks too institutional-like a school
-What are plans for roof top equipment?

Response:

Amended drawings were presented at the workshop that provided material selections and three windows were added to the front locker room facade. After consideration of comments received in the workshop, the exterior design and materials selections have been further refined, and new, more detailed renderings and elevations have been developed.

The red brick proposed at the office wing and the vertical metal siding at the cafeteria have been replaced with a deep warm-toned metal plank panel system with horizontal orientation and staggered joints. The red brick was seen as contributing to the institutional character of the building and the new siding selection is seen as more contemporary and visually interesting.

There is also a more logical application of materials with the front more public wing being composed of one material and the rear, taller dormitory wing being composed with two types of metal siding. The wings are then punctuated by the main entrance and associated gathering space with its higher sloped roof and gray brick cladding.

As noted in staff comments, the design includes a wide variety of fenestration sizes and types to provide visual interest and clues to the functions within. The dormitories and office areas utilize

smaller vertically oriented windows that have a residential scale and the upper portion of the dormitories include large clerestory with large east facing Kalwal translucent panels to bring morning daylight into the sleeping areas. Clerestory windows and a skylight also punctuate the main gathering space, flooding the space with natural light.

Another design refinement has been to add a covered porch element off of the cafeteria/dayroom. This is seen as a transitional space between the interior and the exterior recreational spaces offering a place to sit and gather outside that provides shelter from southerly sun and rain.

Regarding Planning Board comments about roof top equipment. New renderings and a roof plan have been provided showing a proposed area for rooftop HVAC equipment at the center of the building over the bathrooms that provides 5' high screening of metal siding that matches the siding at the upper portions of the building.

Standard 2- Relationship to the Street

Staff comments indicate that this standard has been met.

Standard 3- Open Spaces

Staff comments requested consideration of more deliberate accommodation of resident circulation to outdoor spaces such as the healing garden. It was also noted that landscape plans do not show what is fenced vs. open or specific designs of each landscape amenity.

Response:

Additional entrances have been added at the men's and women's dormitories that are articulated with projecting enclosures that provide direct access to both the healing garden and the main garden space directly adjacent to the day room.

Additional landscape drawings have been developed showing extent of proposed fencing, fencing details, and more detail on the specific design of the garden spaces.

Standard 4- Windows and Storage

Staff comments under standard 1 have indicated that the building design successfully incorporates extensive and varied fenestration bringing ample natural light into all of the building's interior spaces.

Staff requested additional information on storage for residents.

The facility includes a large locker room at the front entrance that will be secured and monitored providing each resident with sufficient locker space for back packs and small personal items. A small amount of personal storage and charging stations for phones will be provided in the sleeping areas. In addition, covered bike storage will be provided.

Standard 5 - Screening of Parking

Staff comments indicate that this standard has been met.

Standard 6 - Lodging House Conversion

Staff comments indicate that this standard is not applicable to this project.

Miscellaneous Design Comments from Planning Board Workshop #1

In addition to design comments focused on the applicable design standards, there were some additional comments relating to design that the design team would like to respond to:

- Design Parameters for COVID 19:

The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.

-All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. We have 7' to 8' distance typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to affor some privacy and to provide a physical barrier between guests to further protect against COVID transmission.

-CDC space recommendations equate to 113 s.f. of floor area be allocated per person in the sleeping areas. We are showing a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

-CDC recommendations include maintaining 6' distances between guests in eating areas as well. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

-CDC also provides guidance for HVAC systems to minimize transmission that include:

- Maximization of outside air intake
- Use of HEPA level filters that are changed out at regular intervals
- Supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems
- Humidity control systems

We will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

- Re-use Options for the Building:

The ultimate goal of providing services for those without shelter is to become so successful at creating housing solutions for all that the shelter is no longer needed. The Planning Board asked if the building's design would allow for re-use for a different purpose in the future.

The proposed building is one story with high ceilinged, open spaces, modern office and meeting space, and plentiful natural light. In addition, it is planned as a pre-engineered structure that will utilize a framing system with longer spans that minimizes columns. All of these features make for a very flexible building that could easily accommodate a variety of uses such as:

- Community Center
- Educational or Vocational Training Center
- City central storage or operations facility for a variety of departments
- Call center or other office use with large open office area needs
- Day care facility
- Emergency Storm Shelter

Front Perspective

WSA
Winton Scott Architects
5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Entrance Plaza

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Cafeteria / Dayroom

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

East Facade

South Facade

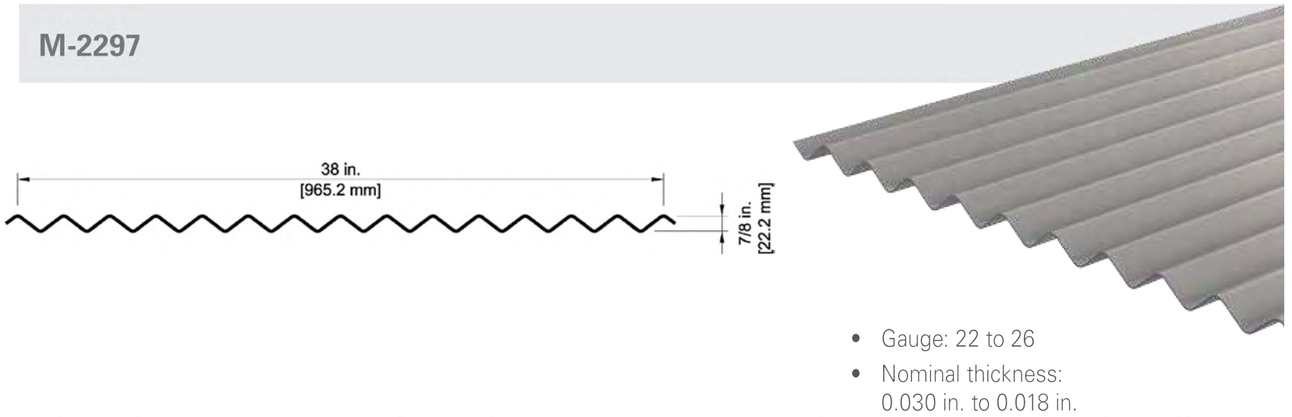
North Facade

West Facade

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

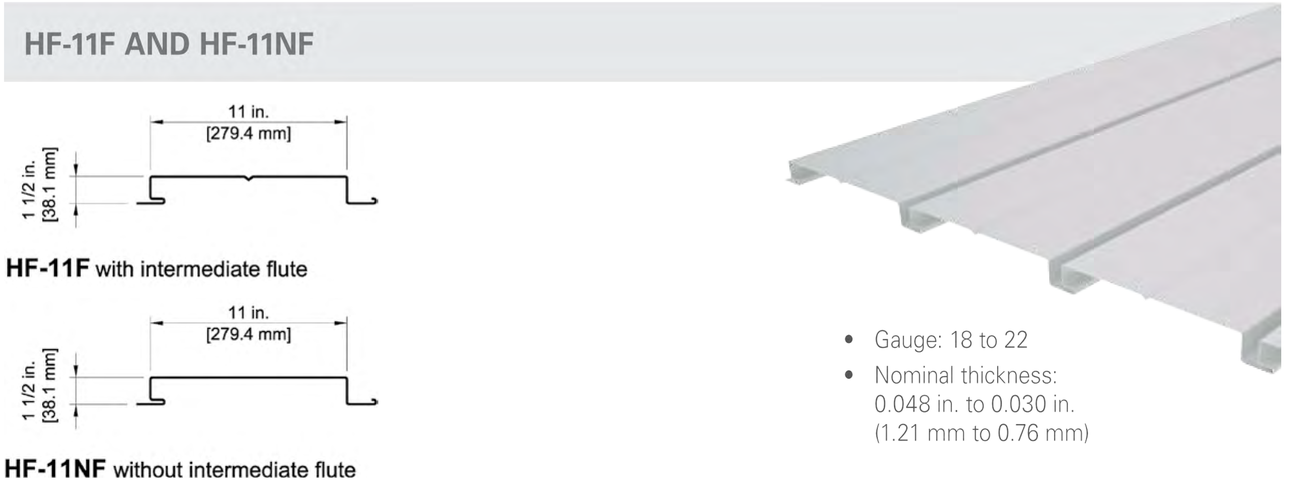
BRICK - Front Entrance Area



- Gauge: 22 to 26
- Nominal thickness: 0.030 in. to 0.018 in.

HORIZONTAL METAL SIDING - Upper portion of Dormitories and Walls at Central Gathering Space Sloped Roof. (Medium Gray)

ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



- Gauge: 18 to 22
- Nominal thickness: 0.048 in. to 0.030 in. (1.21 mm to 0.76 mm)

VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)

Winton Scott Architects
5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

406'-0"

69'-0"

64'-4"

GENDER NEUTRAL SLEEPING SPACE

GENDER NEUTRAL SLEEPING SPACE

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 60 Beds

STAFF

TOILET

TOILET

LINEN DISP.

MEN

WOMEN

GNDR NTRL

UTILITY/HVAC

GNDR NTRL

STAFF

TOILET

LINEN DISP.

DAY ROOM / CAFETERIA (212 SEATS)

DIRTY LINENS

CLEAN LINENS

STAFF LAUNDRY / MAINT

GUEST LAUNDRY

DONATION & MISC STORAGE

TOILET

TOILET

SMALL GROUP 15' x 24'

SMALL GROUP 15'x12'

SMALL GROUP 15'x12'

JAN. CL.

TOILET

DNTL LAB

DENTAL SUITE

CNSLNG

SRVR.

LAB

SECURE MEDS

TOILET

EXAM 1

EXAM 4

TRIAGE

EXAM 2

EXAM 3

WAIT'G

HEALTH CLINIC

CHECK -IN

TEAM ROOM

STAFF ENTRY

MEETING

STOR.

STAFF LCKRS.

SHWR

STAFF LCKRS

WOMEN

MEN

COPY

BREAK

MEETING

OFFICE AREA

OFFICE 16 10'x11'

OFFICE 15 10'x11'

OFFICE 14 10'x11'

OFFICE 13 10'x11'

OFFICE 12 10'x11'

OFFICE 11 10'x11'

OFFICE 10 10'x11'

OFFICE 9 10'x11'

OFFICE 8 10'x11'

DIRECTOR OFFICE 7 11'x16'-0"

DOUBLE OFFICE 1 10'x16'-6"

OFFICE 2 10'x11'

OFFICE 3 10'x11'

OFFICE 4 10'x11'

OFFICE 5 10'x11'

OFFICE 6 10'x11'

KITCHEN 47' x 21'

TOILET

TOILET

FOYER

LOADING/ SERVICE AREA

ELEC SERV.

HVAC H2O SPRINKLERS

LOCKERS (220)

ENTRY

TOILET

SECURITY

DAY MNGR

116'-10 1/2"

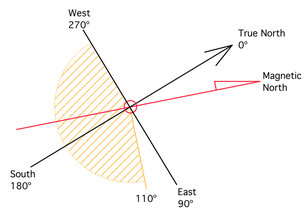
68'-6"

141'-10 1/2"

FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



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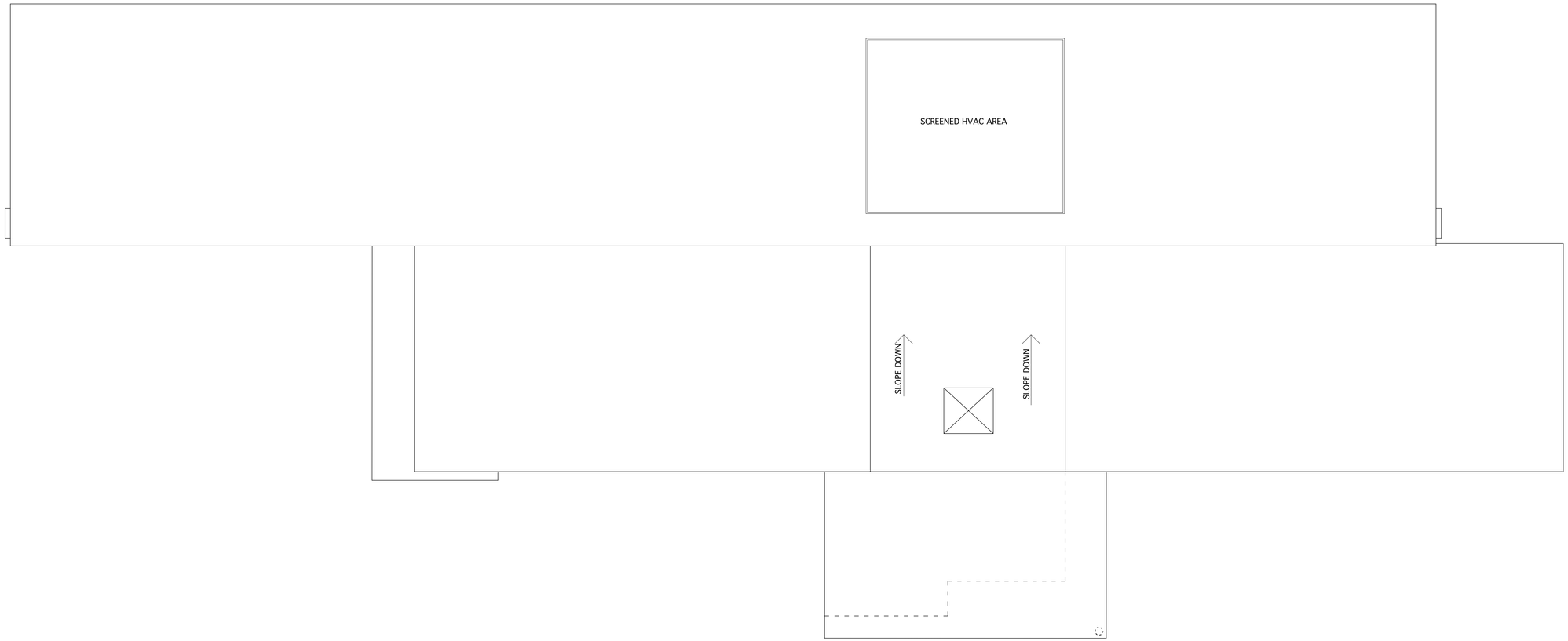

ROOF PLAN

SCALE: 1/16" = 1'-0"

Winton Scott Architects

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Main Gathering Space

WSA
Winton Scott Architects

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ATTACHMENT D

STORMWATER MANAGEMENT REPORT
(BASIC STANDARDS AND GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021
REVISED AUGUST 2021

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Attachments

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed Homeless Service Center on an undeveloped 28.92-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

- Total Area of Site: Lot 4 = 28.92 acres (305,505 sf)
- Total Site Area to be Disturbed: Approx. 5.8 acres
- Total Developed Area After Construction: 5.35 acres
- Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
- Total Proposed Impervious Area: 138,711 SF (3.18 acres)
- Total Impervious Area After Construction: 145,430 SF (3.34 acres)

The proposed stormwater quality treatment approach utilizes Bioretention Filters, Grassed Underdrained Soil Filters, a Roof Line Drip Edge Filter and a Focalpoint® Bio-filtration system which are all listed in the Maine Best Management Practices (BMPs) manual as acceptable practices to meet the stormwater quality standards required under the general standards. The project intends to provide water quality treatment through these four BMP's and then discharge stormwater to either an existing onsite pipe drainage system or to the well-vegetated northerly fill slopes via sheet flow. Ultimately, the Presumpscot River is the receiving water, just downhill of the site.

The purpose of this analysis and report is to document what measures will be implemented to provide stormwater management for the project to satisfy the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations. Due to the site's proximate location to the Presumpscot River, **the applicant is requesting a waiver of the Flooding Standards as has been previously granted for projects in this area of Portland**. Flood controls are not necessarily due to the location of the development at the low end of the overall Presumpscot River watershed, thus a primary goal is to allow treated runoff to discharge from the site in advance of the overall peak river stage, which in large river watersheds occurs later or after a peak rainfall event. Water quality measures are documented and presented in this analysis.

Erosion and Sedimentation Controls (Basic Standards) will be employed during the construction of this project and are summarized in the Erosion and Sedimentation Control Plans provided on sheets C-5.0, C-8.5, and C-8.6.

2.0 EXISTING SITE CONDITIONS

The existing 28.92±-acre site is identified by the City of Portland Assessor's Office on Tax Map 323/Lot A-3, A-5, and A-10. The lot is identified as Lot 4 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.The site is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- A portion of Lot 4 is held under a conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site. An unnamed tributary flows from east to west on the north side of the site, over to the river.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

The site plans include a base topographic survey prepared by Sebago Technics several years ago. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the development area. The far west side of the site closest to the river is at elevation 30'+/-. The river's flood plain is at elevation 35' per the Subdivision plan.

The site's runoff primarily drains downslope directly to the Presumpscot River via overland flow. The southerly portion of the site contains several catch basins which collect stormwater runoff generated onsite as well as convey runoff generated from the Lucas Tree property and Suburban Propane property. This closed system outfalls at the toe of the fill slope to the west. There are no other apparent drainage systems on site, although a closed storm drainage system within Riverside Street. This system is part of several drainage easements benefitting the lots within the subdivision.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to this fact, **the Applicant is requesting a waiver of the Flooding Standard.** As discussed below, the site's current conditions are characterized by filled land that has naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs, and duff cover. Slopes associated with the manmade fill limits vary from 6 to 33% down to a flatter zone along the river.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The development site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Center site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

A 51,690 SF single story service center facility will be constructed, and site improvements will include 56 parking spaces, a 24' wide primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a 20' perimeter drive around the building for emergency and maintenance access.

Typical surface material types utilized on site include:

- Bituminous Pavement – main drive, sidewalk, and parking areas
- Reinforced Turf – perimeter fire lane
- Modular Block Pervious Pavers – front plaza/entrance and exterior social spaces
- All other areas will be treated with loam and seed and other various plantings in accordance with the project landscape plans

The project will be graded to generally follow the existing contours of the site; high in the east and lower in the west. The proposed homeless shelter building will be located along the westerly (rear) property line. The driveway will span east to west along the shared boundary with the Lucas Tree property with parking in front of the new building to the north of the roadway. The roadway grade will trend down toward the proposed building. An emergency access drive spans around the building that will follow down around the rear of the building. The lower portions of the site will remain as the westerly and northerly boundary lines.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions to comply with the MaineDEP VRAP program. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003 http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm*
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the Flooding Standards is requested, no formal hydrologic analysis using HydroCAD has been performed for Pre- and Post-development conditions. However, the water quality BMP's have been modeled using HydroCAD to demonstrate stage-storage and capacity/routing.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

That detention will not be required to reduce the peak flow rate or meet the Flooding Standards. **A waiver of the Flooding Standards is requested on the basis that Detention is not required to offset peak discharge since the overall watershed peak occurs substantially later than the site's. This so-called "beat the peak" approach has been considered in the past by the city and similar waivers for nearby projects, including most recently Suburban Propane, have been granted.**

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MaineDEP (revised October 2010).
- Designing water quality measures including bioretention filters, grassed underdrained soil filters, roof line drip edge filters, proprietary bio-filtration systems and level spreaders to provide long-term removal of non-point contaminants.

- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual.

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

To meet the General Standards, our office reviewed the MaineDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including:

- Grassed underdrained soil filters,
- Bio-retention filters,
- Vegetated buffers,
- Proprietary devices,
- And infiltration trenches

Following this review and incorporating knowledge of the site and the goals of the project, the stormwater management plan for the project has been designed with multiple BMP's located around the site's perimeter. This allows for proper treatment of the site while minimizing the need for storm drain piping and appurtenances. Although the Applicant is requesting a waiver of the Flooding Standard, it is understood that runoff must be dispersed along the fill slopes to minimize erosion. The proposed scheme will separate the stormwater runoff generated from the site and disperse discharge along the northerly fill slope. In total, there will be:

- Five (5) bioretention filters,
- one (1) grassed underdrained soil filter,
- one (1) Focalpoint® Bio-filtration system, and
- one (1) roof line drip edge filter employed as part of the stormwater management plan.

Level spreaders will be utilized at various locations to disperse discharge from the BMP's. Pretreatment will be utilized on site in the form of deep sump catch basins and rip rap inlets for BMP's to capture larger sediment and particles in the runoff.

In addition to these BMP's, the site design utilizes several pervious surface material treatments which decrease the overall impact of development. The 20' wide perimeter fire lane will be constructed using a reinforced turf material which is generally comprised of a prefabricated plastic grid that can be filled with loam and seed and allowed to grow. This will provide additional lawn area while also allowing for proper exterior access for emergency personnel and staff. The front plaza, main entrance, and southerly common space will utilize modular block pervious pavers which will be broken up with various seating areas, raised planter beds, and tree wells. Both of these surface materials will allow for a certain amount of infiltration of runoff greater than typical bituminous pavement which offers essentially no runoff. Although these areas are not equipped with a subbase material designed for filtration to Maine DEP BMP Technical Manual, it is understood that this approach will provide for a

certain amount of treatment and reduce overall runoff generated on site. This technique replaces approximately 50,985 SF area that would otherwise be constructed with impervious surface.

The following sections summarize the stormwater BMP's that are being employed to meet the water quality standards for the proposed development:

1. Bio-Retention Filter:

   Bio-retention filters will be installed along the westerly (rear) of the site. Five (5) separate filters will be used primarily to treat runoff from the perimeter fire lane that will consist of reinforced turf and adjacent garden/exterior common space. Each basin will receive runoff through direct absorption and primarily shallow concentrated flow via rip rap inlets. Runoff will enter the basin and flow through a filter section before being collected in underdrain pipes and directed to individual outfalls on the westerly fill slope. The bio-retention filter section was designed in accordance with Section 7.2 of the BMPs Technical Design Manual dated May 2016.

   The basins will be equipped with gate valves or equal control mechanism, that will be adjusted in order to control and discharge the water quality volume within 24-48 hours. Overflow structures in the form of 6" diameter standpipes with domed grates will be placed 6" above the filter bed in each basin to divert excess amounts of runoff to the underdrain pipes that discharge out to rip rap aprons or level lip spreaders on the northerly and westerly fill slopes.

   In total, the bio-retention filters will provide treatment for 11,998 SF of impervious area and 36,215 SF of developed area. This accounts for 8.65% of the total impervious area and 15.55% of the total developed area. Design calculations for the bio-retention filters are included in Attachment A. Please see Attachment B for the Stage-storage calculations.

2. Grassed Underdrained Soil Filter:

   One Grassed Underdrained Soil Filter (GUSF) will be employed to the north of the site to capture and treat runoff generated from the main entrance, main access drive, parking area, front plaza, and lawn areas. Runoff will primarily be directed via pipe flow to the basin before flowing through an 18" filter media and collected and conveyed in an underdrain system that will discharge the flow to the perimeter of the site. The GUSF section was designed in accordance with Section 7.1 of the BMPs Technical Design Manual dated May 2016.

   An overflow structure in the form of an outlet control manhole structure with a 2' diameter domed grate will be set 18" above the filter bed in the basin to discharge excess amounts of runoff to the perimeter of the site. The GUSF basin will discharge to a level lip spreader where runoff will be dispersed to sheet flow on the northerly fill slope. The underdrain inlet pipe to the outlet control structures will be installed with a pipe cap with an orifice sized to control the water quality volume and discharge within 24-48 hours.

   In total, the grassed underdrained soil filter will provide treatment for 53,619 SF of impervious area and 76,582 SF of developed area. This accounts for 38.66% of the total impervious area and 32.89% of the total developed area. Please see attached design calculations for the GUSF which are included in Attachment A. The stage-storage and drawdown calculation data is provided in Attachments B and C.

3. Roof Line Drip Edge Filter:

A roof line drip edge filter will be employed on the westerly (rear) side of the building to capture and treat runoff generated from a portion of the roof area. Water will fall directly onto the crushed stone surface, travel down through a reservoir layer, through a filter layer and be captured in underdrain pipes that will outlet to a level lip spreader on the westerly fill slope. The roof line drip edge filter section was designed in accordance with Section 7.5 of the BMPs Technical Design Manual dated May 2016.

In total, the roof line drip edge filter will provide treatment for 31,516 SF of impervious area and 31,516 SF of developed area. This accounts for 22.72% of the total impervious area and 13.53% of the total developed area. The design calculations for the drip edge filter are included in Attachment A.

4. Focalpoint® Bio-filtration System:

A FocalPoint® system[2] will be employed to provide water quality treatment for multiple area including the east half of the proposed building, the westerly garden/exterior common space, the loading dock area, and lawn area. The proprietary system consists of a shallow (6-12") depression filled with 18" of a soil filter media and planted with a variety of grasses and shrubs. Runoff entering the cell is detained temporarily before passing through the filter media. The filter media has a high flow rate (100 in/hr) that allows high amounts of runoff to be handled in a smaller footprint. The stormwater is then controlled below the filter section with a chamber storage system before being released downstream to a treatment row. An underdrain pipe then collects and discharges the stormwater from the system and connects to the existing closed drainage system in the southeast corner of the site. This closed drainage system outlets to the west beyond the toe of the existing fill slope where runoff ultimately enters the river. An overflow standpipe with a beehive grate is set approximately 6" above the filter bed and captures stormwater that cannot be handled in larger storm events.

The FocalPoint® will provide treatment for 37,261 SF of impervious area and 61,519 SF of developed area. This accounts for 26.86% of the total impervious area and 26.42% of the total developed area. Design calculations for the FocalPoint® Bio-filtration system are provided in Attachment D of this Application.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.18 acres of impervious surface. The proposed disturbed area will be about 5.8 acres. The stormwater management plan for the project utilizes four different types of BMP's: grassed underdrained soil filters, bio-retention filters, a proprietary Focalpoint® bio-filtration system and a roof line drip edge filter. By using multiple BMP's, discharge can be separated and divided along the property boundary to avoid erosion that might be experienced with one centralized treatment method. In addition to this non-centralized treatment scheme, runoff will be dispersed at the development boundaries with level spreaders to further dissipate runoff generated on site. The following table demonstrates the treatment percentages achieved for the project:

[2] See https://www.maine.gov/dep/land/stormwater/stormwaterbmps/manufactured-systems/focalpoint-january2017.pdf

Table 1: Portland Homeless Services Center Treatment Summary				
Treatment Method	**Impervious**		**Developed**	
	SF	**Percent**	**SF**	**Percent**
Bio-Retention Filter	11,998	8.65	36,215	15.55
Grassed Underdrain Soil Filter	53,619	38.66	76,582	13.53
Roof Line Drip Edge Filter	31,516	22.72	31,516	32.89
Focalpoint® System	37,261	26.86	61,519	26.42
Total	**134,394**	**96.89**	**205,832**	**88.39**
Required	**-**	**95**	**-**	**80**

As the table presents, the proposed treatment percentages exceed the required levels of 95% impervious area treatment and 80% developed area treatment.

11.0 EROSION AND SEDIMENTATION CONTROL (BASIC STANDARDS)

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are included in the project plan set. Erosion control BMP's, as described in the MaineDEP Erosion and Sediment Control BMP Manual, will be utilized throughout the project. BMP's proposed include but are not limited to:

- Stabilized Construction Entrance
- Siltation fencing/erosion control mix berms
- Inlet/Outlet protection
- Temporary construction stabilization
- Slope stabilization
- Level lip spreaders

Level lip spreaders are crucial to the success of the stormwater management plan as the runoff generated onsite will be dispersed along the existing fill slopes. Level lip spreaders will be employed at all BMP outfalls that discharge to the perimeter fill slopes. In total, five (5) level lip spreaders will be employed as part of the development. The contractor will also be required to employ ESC BMP's for any material stockpiles as well as any areas left denuded for extended periods of time during construction. The ESC plan for the project complies with the requirements detailed in Attachment A of Maine DEP's chapter 500 Rules for Stormwater Management, thus satisfying the Basic Standard.

12.0 OPERATIONS AND MAINTENANCE

The stormwater management facilities will be maintained by the Applicant or their assigns after construction is complete. The general contractor will be responsible for maintenance during construction. The contract documents will require that the contractor designate a person for maintenance of the facilities during construction as required by this application. Long term operation/ maintenance schedules for the facilities are provided in the updated O&M Manual included in Attachment E to this report.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

14.0 CONCLUSION

The Stormwater Management Plan for this project outlines the measures proposed to achieve compliance with the Chapter 500 Stormwater Management standards for water quality treatment. The design includes stormwater quantity controls including storage components within the bio-retention filters, grassed underdrained soil filter, roof drip edge filter, and subsurface chamber system in the Focalpoint® system. The site will discharge and re-disperse stormwater runoff to sheet flow along the north and west fill slopes and ultimately flow to the Presumpscot River, which is major river segment, thus the applicant is seeking a waiver of the flooding standards. Other than the proprietary treatment system, the majority of the runoff generated will ultimately discharge directly onto the north and west fill slopes. The drainage scheme for the project utilizes multiple stormwater filtration basins with multiple discharges around the site, rather than a traditional centralized stormwater basin such as a wet pond. This approach will redisperse stormwater to sheet flow and back to its natural drainage course as it makes its way to the river. A minor amount of development area will direct runoff to the municipal street system and these impacts are considered insignificant.

Based on the proposed design, the runoff from the proposed development will be captured and conveyed in a manner that will not have an adverse impact to the surrounding stormwater systems or the environment.

15.0 ATTACHMENTS

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

ATTACHMENT A
WATER QUALITY CALCULATIONS

Portland Homeless Service Center - Stormwater Management Summary

08.11.2021
Designed By: KAB
Checked By: SRB

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	31516	0	31,516	31,516	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	53619	22,963	76,582	53,619	22,963
103a	0	7,664	7,664	0	0
103b	37261	24,258	61,519	37,261	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

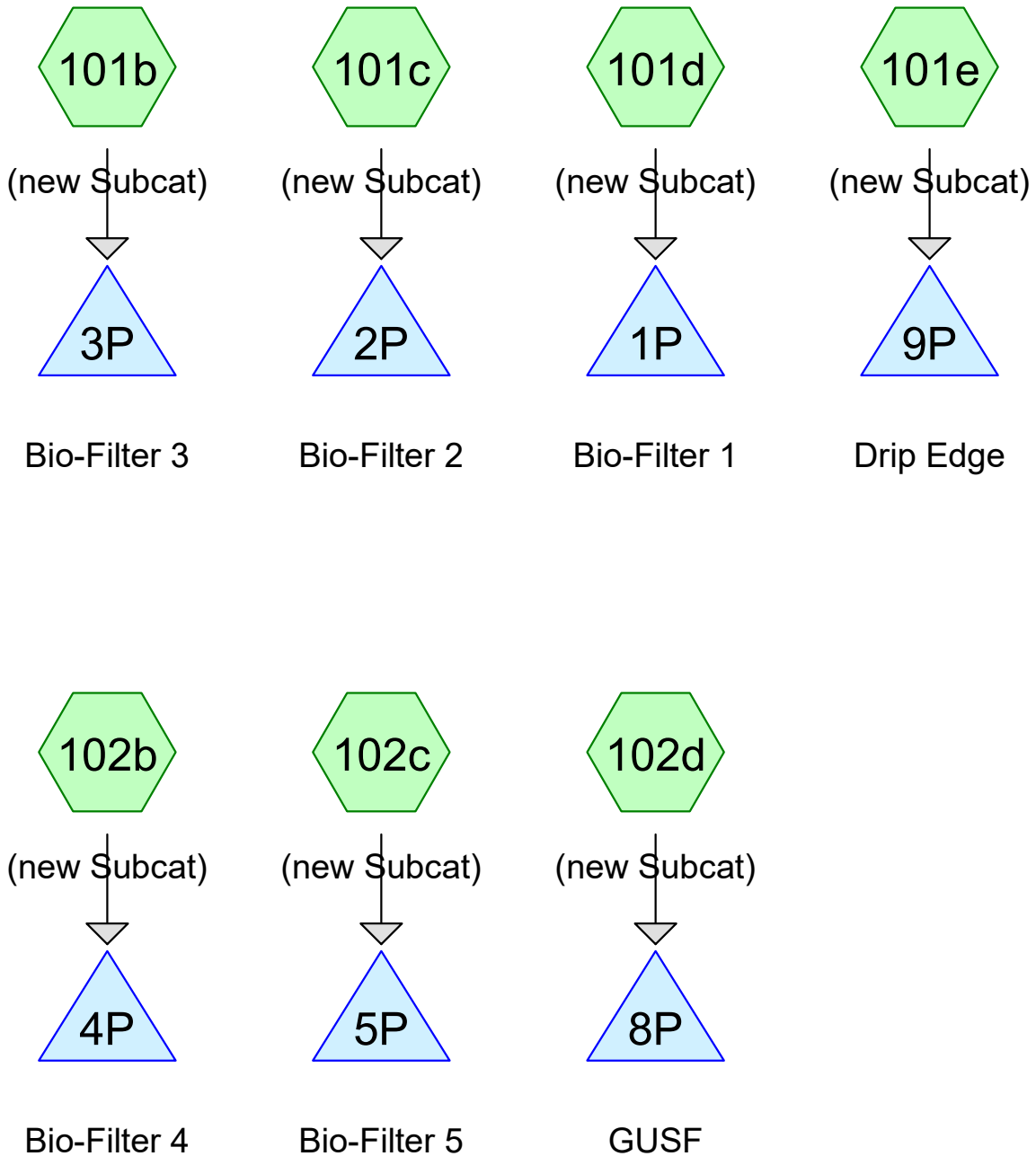
BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,234	5,728	3,140	3,226
101e	Roof Line Drip Edge Filter	2,626	2,910	-	-
101a, 102a, 103a, 104 (untreated)	-	-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

ATTACHMENT B
HYDROCAD STAGE-STORAGE REPORTS


101b
(new Subcat)
3P
Bio-Filter 3
101c
(new Subcat)
2P
Bio-Filter 2
101d
(new Subcat)
1P
Bio-Filter 1
101e
(new Subcat)
9P
Drip Edge
102b
(new Subcat)
4P
Bio-Filter 4
102c
(new Subcat)
5P
Bio-Filter 5
102d
(new Subcat)
8P
GUSF
Subcat
Reach
Pond
Link
Routing Diagram for 3824.01_post-dev
Prepared by {enter your company name here}, Printed 8/11/2021
HydroCAD® 10.10-4a s/n 01265 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 101b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af, Depth> 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
281	98	Water Surface, HSG C
4,228	74	>75% Grass cover, Good, HSG C
4,509	75	Weighted Average
4,228		93.77% Pervious Area
281		6.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,669	87	Dirt roads, HSG C
547	98	Water Surface, HSG C
3,227	74	>75% Grass cover, Good, HSG C
7,443	82	Weighted Average
6,896		92.65% Pervious Area
547		7.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af, Depth> 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
427	98	Water Surface, HSG C
4,816	98	Unconnected pavement, HSG C
661	74	>75% Grass cover, Good, HSG C
5,904	95	Weighted Average
661		11.20% Pervious Area
5,243		88.80% Impervious Area
4,816		91.86% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101e: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
27,879	98	Roofs, HSG C
3,637	98	Water Surface, HSG C
31,516	98	Weighted Average
31,516		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
274	98	Water Surface, HSG C
3,532	74	>75% Grass cover, Good, HSG C
3,806	76	Weighted Average
3,532		92.80% Pervious Area
274		7.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
793	98	Water Surface, HSG C
1,191	98	Paved parking, HSG C
12,606	74	>75% Grass cover, Good, HSG C
14,590	77	Weighted Average
12,606		86.40% Pervious Area
1,984		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,226	98	Water Surface, HSG C
22,963	74	>75% Grass cover, Good, HSG C
50,393	98	Paved parking, HSG C
76,582	91	Weighted Average
22,963		29.98% Pervious Area
53,619		70.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 1P: Bio-Filter 1

Inflow Area = 0.136 ac, 88.80% Impervious, Inflow Depth > 5.21" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af
Outflow = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 2%, Lag= 1.3 min
Primary = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.61' @ 12.09 hrs Surf.Area= 598 sf Storage= 528 cf

Plug-Flow detention time= 94.3 min calculated for 0.058 af (99% of inflow)
Center-of-Mass det. time= 90.4 min (853.6 - 763.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.83'	775 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.83	427	0.0	0	0
62.50	427	0.0	0	0
64.00	427	33.0	211	211
64.50	575	100.0	251	462
65.00	678	100.0	313	775

Device	Routing	Invert	Outlet Devices
#1	Primary	61.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.83' / 61.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.72 cfs @ 12.09 hrs HW=64.61' (Free Discharge)
- **1=Culvert** (Passes 0.22 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.03 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.19 cfs @ 1.09 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.50 cfs @ 0.90 fps)

Summary for Pond 2P: Bio-Filter 2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 0.171 ac, 7.35% Impervious, Inflow Depth > 3.80" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af
Outflow = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af, Atten= 39%, Lag= 7.8 min
Primary = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.58' @ 12.20 hrs Surf.Area= 781 sf Storage= 658 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 116.1 min (925.0 - 808.9)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	1,012 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	547	0.0	0	0
60.50	547	0.0	0	0
62.00	547	33.0	271	271
62.50	757	100.0	326	597
63.00	905	100.0	416	1,012

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.45 cfs @ 12.20 hrs HW=62.58' (Free Discharge)
- **1=Culvert** (Passes 0.16 cfs of 1.18 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.04 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.11 cfs @ 0.92 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.75 fps)

Summary for Pond 3P: Bio-Filter 3

Inflow Area = 0.104 ac, 6.23% Impervious, Inflow Depth > 3.11" for 25 Year event
Inflow = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af
Outflow = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af, Atten= 32%, Lag= 8.1 min
Primary = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.55' @ 12.22 hrs Surf.Area= 398 sf Storage= 327 cf

Plug-Flow detention time= 124.4 min calculated for 0.027 af (100% of inflow)
Center-of-Mass det. time= 123.6 min (950.2 - 826.6)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	281	0.0	0	0
60.50	281	0.0	0	0
62.00	281	33.0	139	139
62.50	384	100.0	166	305
63.00	514	100.0	225	530

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.23 cfs @ 12.21 hrs HW=62.55' (Free Discharge)
- **1=Culvert** (Passes 0.08 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.06 cfs @ 0.73 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.15 cfs @ 0.60 fps)

Summary for Pond 4P: Bio-Filter 4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 0.087 ac, 7.20% Impervious, Inflow Depth > 3.21" for 25 Year event
Inflow = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af
Outflow = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af, Atten= 47%, Lag= 11.5 min
Primary = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 65.04' @ 12.27 hrs Surf.Area= 387 sf Storage= 314 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 128.5 min (952.7 - 824.2)

Volume	Invert	Avail.Storage	Storage Description
#1	62.33'	515 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.33	274	0.0	0	0
63.00	274	0.0	0	0
64.50	274	33.0	136	136
65.00	378	100.0	163	299
65.50	489	100.0	217	515

Device	Routing	Invert	Outlet Devices
#1	Primary	62.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.33' / 61.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	62.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	65.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	65.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.15 cfs @ 12.27 hrs HW=65.04' (Free Discharge)
- **1=Culvert** (Passes 0.06 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.62 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.09 cfs @ 0.51 fps)

Summary for Pond 5P: Bio-Filter 5

Inflow Area = 0.335 ac, 13.60% Impervious, Inflow Depth > 3.30" for 25 Year event
Inflow = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af
Outflow = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af, Atten= 16%, Lag= 4.9 min
Primary = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.15' @ 12.16 hrs Surf.Area= 955 sf Storage= 957 cf

Plug-Flow detention time= 116.4 min calculated for 0.089 af (96% of inflow)
Center-of-Mass det. time= 94.1 min (915.8 - 821.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.33'	1,311 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.33	793	0.0	0	0
62.00	793	0.0	0	0
63.50	793	33.0	393	393
64.00	917	100.0	428	820
64.50	1,047	100.0	491	1,311

Device	Routing	Invert	Outlet Devices
#1	Primary	61.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.33' / 60.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.03 cfs @ 12.16 hrs HW=64.14' (Free Discharge)
- **1=Culvert** (Passes 0.32 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.05 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.27 cfs @ 1.22 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.70 cfs @ 1.01 fps)

Summary for Pond 8P: GUSF

Inflow Area = 1.758 ac, 70.02% Impervious, Inflow Depth > 4.76" for 25 Year event
Inflow = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af
Outflow = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af, Atten= 37%, Lag= 5.8 min
Primary = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 63.00' @ 12.17 hrs Surf.Area= 4,876 sf Storage= 8,030 cf

Plug-Flow detention time= 117.2 min calculated for 0.565 af (81% of inflow)
Center-of-Mass det. time= 44.3 min (825.1 - 780.8)

Volume	Invert	Avail.Storage	Storage Description
#1	58.75'	8,051 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.75	3,226	0.0	0	0
61.00	3,226	0.0	0	0
62.50	4,411	100.0	5,728	5,728
63.00	4,880	100.0	2,323	8,051

Device	Routing	Invert	Outlet Devices
#1	Device 4	62.50'	**60.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Device 4	58.67'	**0.8" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	58.75'	**6.0" Round Culvert** L= 7.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.75' / 58.67' S= 0.0114 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#4	Primary	58.57'	**12.0" Round Culvert** L= 18.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.57' / 58.40' S= 0.0094 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#5	Device 3	58.75'	**2.400 in/hr Exfiltration over Surface area**

Primary OutFlow Max=5.91 cfs @ 12.17 hrs HW=62.99' (Free Discharge)
└**4=Culvert** (Inlet Controls 5.91 cfs @ 7.52 fps)
  ├**1=Orifice/Grate** (Passes < 17.44 cfs potential flow)
  └**2=Orifice/Grate** (Passes < 0.03 cfs potential flow)
    └**3=Culvert** (Passes < 1.49 cfs potential flow)
      └**5=Exfiltration** (Passes < 0.27 cfs potential flow)

Summary for Pond 9P: Drip Edge

Inflow Area = 0.724 ac,100.00% Impervious, Inflow Depth > 5.56" for 25 Year event
Inflow = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af
Outflow = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af, Atten= 73%, Lag= 20.3 min
Primary = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 67.40' @ 12.41 hrs Surf.Area= 3,637 sf Storage= 2,761 cf

Plug-Flow detention time= 15.5 min calculated for 0.271 af (81% of inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	63.83'	2,910 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
63.83	3,637	0.0	0	0
64.50	3,637	0.0	0	0
65.50	3,637	0.0	0	0
67.50	3,637	40.0	2,910	2,910

Device	Routing	Invert	Outlet Devices
#1	Primary	63.83'	**6.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.83' / 62.65' S= 0.0118 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=1.13 cfs @ 12.41 hrs HW=67.40' (Free Discharge)
1=Culvert (Barrel Controls 1.13 cfs @ 5.76 fps)

ATTACHMENT C
DRAWDOWN CALCULATIONS

Portland Homeless Services Center
BMP Drawdown Calcs

08.04.2021
Designed By: KAB
Checked By: SRB

Drawdown Calculation - GUSF #1

Orifice Diameter =0.83 in

Elev. (ft)	Depth (ft)	Surface Area (sq.ft)	Ave. End Area (sq.ft)	End Area Depth (ft)	Incremental Volume (cf)	Head, h (ft)	Orifice Flow (cfs)	Drawdown Time (secs)	Drawdown Time (hours)
63.50	1.00	2,040	4411.00	0.50	2205.50	3.17	0.0322	68497.56	19.027
63.00	0.50	1,773	3226.00	0.50	1613.00	2.67	0.0296	54585.39	15.163
62.50	0.00	1,520	0.00	0.00	0.00	2.17	0.0266	0.00	0.000
								TOTAL	***34.190***

Orifice Formula	**$CA\ (2gh)^{1/2}$**	
Orifice Diameter:	**0.83**	inch
A:	0.003757	sq.ft
Filter Thickness:	2.17	feet
g:	32.174	ft/s^2
C:	0.6	Orifice/Grate

ATTACHMENT D
FOCALPOINT® DESIGN WORKSHEET/HYDROCAD REPORT

DESIGN WORKSHEET

FOCALPOINT

MAINE CHAPTER 500 PROJECTS

1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf) See step 2 to determine if minimum size is appropriate.**
   - Tributary impervious area: = 0.86 ac **(A)**
   - Tributary pervious area: = 0.56 ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 189 sf
   - FocalPoint bed area provided: = 200 sf
   - Dimensions of proposed FocalPoint: = 10 ft x 20 ft

2. **A 0.95-in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 400 ft^3
   - Peak ponding depth from 0.95-in 24-hr storm event: = below mulch in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = 1 : 2

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1-yr 24-hr storm event.**
   - 1-yr 24-hr peak flowrate: = 1.82 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (HD singles or taller - 1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 91

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled release of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☐

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer's representative**
   - The design has been reviewed by ACF Environmental ☐
   - Engineer will coordinate installation inspection with ACF Environmental ☐

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within FocalPoint must be a minimum of 174 sf per 1.0 acre of impervious area (26 sf per 0.15 acres). Thickness of the media is to be no less than 1.5 ft (18 in).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:

FOCALPOINT ACCESSORIES:

Pretreatment - Rain Guardian Turret

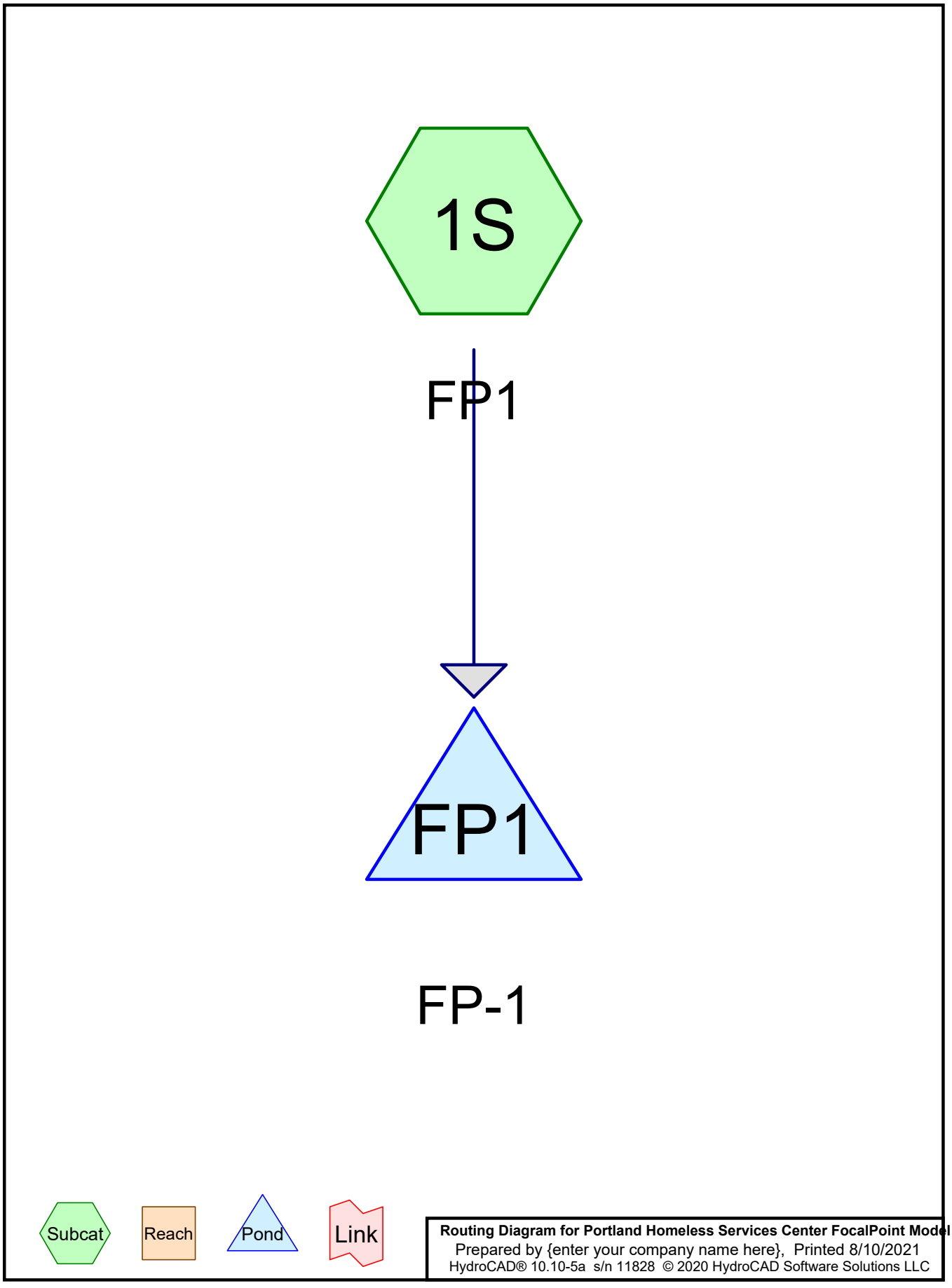
Pretreatment - Rain Guardian Foxhole

Pretreatment - PreTx

Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com


1S
FP1
FP1
FP-1
Subcat
Reach
Pond
Link
Routing Diagram for Portland Homeless Services Center FocalPoint Model
Prepared by {enter your company name here}, Printed 8/10/2021
HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: FP1

Runoff = 0.10 cfs @ 12.15 hrs, Volume= 501 cf, Depth> 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 0.95-in Rainfall=0.95"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 0.10" for 0.95-in event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 501 cf
Outflow = 0.10 cfs @ 12.15 hrs, Volume= 500 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.10 cfs @ 12.15 hrs, Volume= 500 cf
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.77' @ 12.15 hrs Surf.Area= 200 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 499 cf (100% of inflow)
Center-of-Mass det. time= 0.1 min (864.7 - 864.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.15 hrs HW=61.77' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.75' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 1S: FP1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf, Depth> 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-YR Rainfall=2.60"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 1.05" for 1-YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf
Outflow = 1.29 cfs @ 12.20 hrs, Volume= 5,358 cf, Atten= 29%, Lag= 6.0 min
Primary = 0.46 cfs @ 11.90 hrs, Volume= 4,675 cf
Secondary = 0.83 cfs @ 12.20 hrs, Volume= 683 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.62' @ 12.20 hrs Surf.Area= 200 sf Storage= 663 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (809.5 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.46 cfs @ 11.90 hrs HW=62.10' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Secondary OutFlow Max=0.82 cfs @ 12.20 hrs HW=64.62' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.82 cfs @ 1.12 fps)

ATTACHMENT E
OPERATION & MAINTENANCE MANUAL

HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE MANUAL FOR STORMWATER FACILITIES

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

AUGUST 2021

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APPENDICES

Appendix A – Summary Checklist for Inspection and Maintenance

Appendix B – Inspection Logs

Appendix C – Stormwater Drainage System Maintenance Agreement

Appendix D – Permits for Project

I. INTRODUCTION

Runoff from developed areas may contain a number of contaminants especially when emanating from rooftops, paved or lawn areas. This runoff can contain a significant amount of non-point contaminants, which can have an adverse impact on the receiving waters. The installation of soil media filters, vegetated buffer strips and other stormwater best management practices can significantly reduce the non-point pollution discharge from the developed area.

The effectiveness of BMP's and other components of the system are dependent on their upkeep and maintenance to assure they meet their design function over an extended period of time. It is critical that the stormwater management facilities are inspected on a regularly scheduled basis, and that maintenance is performed on an as needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that transport the flow to the outlets or treatment measures. Thus, maintenance should be directed to the total system, not just the BMP's.

The purpose of this document is to define in detail the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended on a long-term basis for the City of Portland Homeless Services Center. This Operations and Maintenance Manual is specific to the proposed stormwater measures utilized to execute a successful stormwater management plan. Subsequent sections identify individual maintenance items, give a brief commentary of the function and need of the item, a description of the work required, and a suggested frequency of accomplishment. While the suggested programs and schedules must be adapted to specific projects, the material presented should provide guidance for a successful long-term program.

A. Guidelines Overview

A summary of the individual components of stormwater management facilities for this project has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis, which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The owner/operator should review the design drawings and documents carefully to understand the particular elements of the project.

The end of this section should allow the owner/operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

This report includes the Operation and Maintenance requirements for any potential BMP identified in the Stormwater Management Report for this project.

B. Responsible Party

The responsible party for operation and maintenance of the stormwater and other site infrastructure will be the applicant or their agents or assigns. A copy of an unexecuted Stormwater Drainage System Maintenance Agreement is included in Appendix C.

II. PROJECT OVERVIEW

Key permits issued (or applied for) on the project include:

- City of Portland Site Plan Approval
- MaineDEP Site Location of Development Permit (Delegated Review by City of Portland)
- Maine Construction General Permit Stormwater General Permit

A copy of the permits and Stormwater Management Report should be appended to this manual as Appendix E. The Owner/Operator of the stormwater management system should review these permits for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained Gorrill Palmer for civil engineering for the development project. Gorrill Palmer has prepared the design for the stormwater management facilities and may be contacted at:

Gorrill Palmer
707 Sable Oaks Drive – Suite 30
South Portland, Maine 04106
207.772.2515

The applicable plans and design documents which apply to the project are:

1. Civil Site Plans Prepared by Gorrill Palmer
2. The Erosion Control/Sedimentation Control Plan for the project
3. The Stormwater Management Plan for the project

A copy of these documents should be retained with this manual.

The proposed design includes inlets, stormwater conveyance lines, grassed underdrained soil filters, bio-retention filters and outlet control structures.

The key receiving waters for this project is the Presumpscot River which is under tidal influence.

The manual is intended for general guidance; however, any substituted deviations from the manual should be reviewed with respect to provisions of Appendix D.

III. STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS

The following narratives describe the inspection/maintenance provisions for the Stormwater Management system. Proper O&M is necessary to make sure the system will provide its intended purpose of conveying runoff, removing a substantial amount of the suspended solids, and other contaminants in the stormwater runoff.

A. Stormwater Inlets

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets include catch basins and field inlets. Field inlets exist in the bio-retention filters and grassed underdrained soil filters as overflow structures and in lawn areas in front of the building.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets near the sidewalk areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the buildings.

Frequency: All inlets should be inspected on a quarterly basis, and after/during significant storm events i.e. >1" rainfall).

Maintenance Personnel: The maintenance personnel will perform the normal maintenance/ inspections of the inlets and tributary drainage system.

Comments: Maintenance of inlets is critical on this project.

B. Tributary Drainage System

Preface: Stormwater from the project will be collected in catch basins in the roadway/parking lot and transported to treatment basins or directed through filters and into a conveyance (tributary) system which transports the flow to individual outfalls. The conveyance systems

serving each BMP will be principally overland flow discharging to piped drain systems other than the bio-retention filters which receive stormwater via rip rap inlets along the edge of the reinforced turf fire lane. Most sediment generated will be collected in the roadway catch basins and trapped in those structures or within the rip rap inlets leading down to the basins. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the onsite systems.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that the carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems, the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with debris.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long-term basis, and that its operation does not transport excessive sediments to any downstream treatment device or the receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. If a temporary filter bag has been designated for the inlet during construction, silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with the sediment and replaced during construction. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the Development. The removed material must be disposed of at an approved site for such materials.

If sediment in the pipeline is observed, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed.

Frequency: The tributary drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

C. Grassed Underdrained Soil Filter

Preface: The grassed underdrained soil filter collects stormwater runoff from drainage swales and the closed drainage system in the roadway/parking area before passing it through a treatment section and discharging onto the south and east sides of the site. The soil filter is an underdrain system with multi-media aggregates.

Inspection/Monitoring: The soil filter can be inspected visually and should be inspected regularly and especially after a significant rain event (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. This is particularly important around ditch lines and pipe inlets.

Large Debris

Large debris such as trash should be removed on a routine basis.

Turf Maintenance

The basin should be allowed to develop for one full growing season post-construction prior to their first mowing. This allows for natural re-seeding of grass seed mixes and establishment of a healthy stand of grass. After the first year, only mow grass two times per year maximum. A minimum 6" height of grass should maintained in the filter at all times.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example,

the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.

4. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
5. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.

Water the grass in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the grass to re-establish.

Frequency: The grassed underdrained soil filters should be inspected semi-annually and maintained as necessary.

Maintenance/Inspection Responsibility: The Owner or an outside agent is responsible for inspection and maintenance of the porous pavement areas.

Comments: The grassed underdrained soil filters are critical to the stormwater management plan as they provide treatment for the entire road and driveways/front yards and roofs. Snow storage is prohibited within the basins.

D. Bio-Retention Filters

Preface: The bio-retention filters are soil filters with planted soil beds, an underdrain system with multi-media aggregates set in a shallow basin. Stormwater runoff is conveyed to the filters from the surface before passing through the filter and into a closed drainage system.

Inspection: The bio-retention filters can be inspected visually. Visual inspections should also occur after large storm events (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. Inlets for each of the bio-filters is through drainage swales or direct sheet flow. It will be important to ensure that debris and grass clippings are properly removed and do not settle in these swales.

Large Debris

Large debris such as trash should be removed on a routine basis.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter. This should also be performed by hand in order to protect the vegetation.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example, the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.
4. Harvest the plants (when applicable). Care should be taken in the removal and temporary storage of the plants so that as many as possible can be harvested for replanting in the soil filter area once the functioning of the device has been restored sufficiently.
5. Remove the mulch layer.
6. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
7. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.
8. Replant the harvested plants and replace any plants that were rendered unusable during or following their removal from the soil filter area.

9. Replace the removed mulch layer with fresh mulch.
10. Water the plants in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the plants to re-establish themselves.

Frequency: The bio-retention filters should be inspected semi-annually and maintained as necessary.

Comments: Snow storage within the filter area is prohibited by Maintenance Personnel.

E. Level Lip Spreaders

Preface: Level spreaders are a vegetated or mechanical structure used to disperse or "spread" concentrated flow thinly over a receiving area to reduce erosion and movement of sediment as well as filter sediment and soluble pollutants, and sediment-attached pollutants.

Inspection: The level spreader should be inspected twice annually and after major storms (i.e. >0.5") for sand accumulation and debris that may reduce its capacity.

Maintenance: The procedures for maintenance are as follows:

Sediment Removal:
Sediment buildup within the swale or storage area should be removed when it has accumulated to approximately 25% of the channel capacity.

Debris:
Remove debris such as leaf litter, branches and tree growth from the spreader.

Snow Storage:
Snow should not be stored within the area of the level spreader.

Frequency: The Level Lip Spreaders should be inspected twice annually and maintained as necessary.

Comments: Reconstruction of the level spreader may be necessary when sheet flow from the spreader channelize. Each of the level spreaders employed as part of the project will receive flow from BMP outlet pipes.

F. Proprietary Treatment Devices (FocalPoint®)

Preface: A FocalPoint® system will be used on site to treat surface runoff from impervious and landscaped area.

Inspection: Inspection of the filter should be performed after each major rainfall event to ensure that stormwater runoff is able to pass through the filters. The vegetation should be inspected and maintained regularly similar to other landscape features on site. The underdrain outlet should be inspected regularly.

Maintenance: Clear inlets and pretreatment devices of debris and sediment. Maintain as instructed by manufacturer.

Frequency: The system should be inspected semi-annually and maintained as required by the manufacturer.

Comments: The manufacturer typically commits to the first year of maintenance if their strict guidelines are followed for installation, which is highly encouraged to achieve peak performance. It is recommended that an outside agent who is familiar with the product be retained for future maintenance.

G. Outlet Control Devices

Preface: Outlet control devices are utilized for all BMPs on the project, to ensure proper drain down times.

Inspection: Inspection of orifices should be performed after each major rainfall event to ensure that stormwater runoff is able to discharge through the orifice and that it is not clogged.

Maintenance: The orifice cap should be removed and all debris flushed from the pipe prior to reinstalling the orifice cap. Gate Valves should be opened and flushed prior to reinstalling.

Frequency: The orifice control devices should be inspected semi-annually and maintained as needed.

Comments: This project uses gate valves for the grassed underdrained soil filters bio-filters. An orifice cap is utilized for the grassed underdrained soil filter. An orifice in a weir wall is used for the underground water quality storage chambers.

H. Litter

Litter should be removed as a matter of course by workers and as part of the ground's maintenance contract.

IV. PROGRAM ADMINISTRATION

A. General

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities. (Maintenance continues for the lifespan of the development in accordance with this document)

2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.

3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.

4. The administrative body must have the staff to accomplish the inspection and maintenance programs or must have authority to contract for the required services.

5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.

6. A qualified post construction inspector shall be retained by the Owner. His/her duties shall include preparing schedules for the Owner's maintenance, summarizing the results of this maintenance and preparing an annual report on the operation, maintenance, and repair of the stormwater system which must be copied to the City. (The Owner shall be responsible for retaining a separate entity to perform maintenance which cannot be performed by the management of building and property grounds.) This person shall also participate in troubleshooting of the stormwater management system if a problem develops.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. Record Keeping

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

Beyond the initial 5-year time span of the original approval and maintenance plan, the stormwater management system will need to be recertified through the Department every 5 years to confirm that there is conformance with the original permit documents. This process will ensure all systems function properly over time. This document will remain valid throughout any subsequent recertification processes.

C. Contract Services

In some instances, or at specific times, the Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document.

In such cases, the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Summary Checklist
Inspection and Maintenance

Stormwater Management System Maintenance Program Summary Checklist						
Item	**Commentary**	**Frequency**				
		Monthly	**Quarterly**	**Semi-Annual**	**Annual**	**Long Term**
Stormwater Inlets	Stormwater inlets allow flow entry from a surface swale to a piped system. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.		X		X Clearing	
Tributary Drainage System	Inspect to assure that the carrying capacity has not been diminished by debris, sediment or other hydraulic impediments.				X	
Grassed Underdrained Soil Filters	Remove debris from filter area. Inspect health of grass and filter media. Fix eroded areas as soon as possible. Snow storage is prohibited on the filter bed.			X		
Bio-Retention Filters	Remove debris from filter area. Inspect health of vegetation at beginning and end of year. Fix eroded areas as soon as possible. Replace mulch every year. Snow storage is prohibited on filter area.			X		X
Level Lip Spreaders	Inspect berms and ditches after rain events >1" and remove sediment. Check for signs of clogging and flush berm if necessary. Remove woody vegetation.			X		X
Orifice Control Devices	Inspect after major storm events and clear debris from orifice. May require flushing of pipes.			X		
Litter	Litter should be removed daily.					
Focalpoint System	Inspect after major storm events and clear debris. Refer to manufacturer guidelines.			X		X

APPENDIX B

Sample Inspection Logs

CITY HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT
SAMPLE STORMWATER INSPECTION & MAINTENANCE LOG

This log is intended to accompany the Operation and Maintenance Manual for Stormwater Management and Related Facilities. All stormwater BMPs shall be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions of the DEP Stormwater Permit, shall conduct inspections of the facilities as described in the O&M Manual and on this form, and identified deficiencies must be corrected. This log shall be kept on file for a minimum of five (5) years.

A. General Information			
Project Name:		**Inspection Date:**	
Parcel/Lot:		**Current Weather:**	
BMP Owner:		**Date/Amount Last Precip.:**	
Owner Mailing Address:		**Inspection Company:**	
Owner Phone #:		**Inspection Co. Mailing Address:**	
Owner Email:		**Inspector Name:**	
		Inspector Phone #:	
		Inspector Email:	

B. Stormwater Inlets	**Observations**
Frequency: Annually in the spring	
Accumulated sediments from inflow channels and pipes between basins have been removed and legally disposed of	☐ Yes ☐ No ☐ NA
Floating debris and large sediment particles have been removed from inlets.	☐ Yes ☐ No ☐ NA
Stormwater Inlet Notes:	

C. Tributary Drainage System	**Observations**
Frequency: Annually spring or late fall and after heavy rains	
Remove and legally dispose of sediments	☐ Yes ☐ No ☐ NA
Remove floatables and other objects	☐ Yes ☐ No ☐ NA
Check for overgrown vegetation impeding flow	☐ Yes ☐ No ☐ NA
Check pipelines for siltation and clogging	☐ Yes ☐ No ☐ NA
Repair any slumping side slopes or erosion	☐ Yes ☐ No ☐ NA
Replace any riprap on areas where any underlying fabric or underlying gravel is exposed.	☐ Yes ☐ No ☐ NA
Tributary Drainage System Notes:	

D. Grassed underdrained Soil Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Grassed Underdrained Soil Filter Notes:	

D. Bio-Retention Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Replace mulch once per year	☐ Yes ☐ No ☐ NA
Check health of vegetation	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Bio-Retention Filters Notes:	

E. Orifice Control Devices	Observations
Frequency: Semi-Annually	
Check for debris blocking orifice	☐ Yes ☐ No ☐ NA
If applicable, flush underdrain pipe	☐ Yes ☐ No ☐ NA
Orifice Control Devices Notes:	

APPENDIX C

Stormwater Drainage
System Maintenance Agreement

STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT

DC Predevelopment LLC/City of Portland
City of Portland, Maine – Homeless Services Center at 638 Riverside Street

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **City Homeless Services Center ID PL-001682-2021 -** shown on the Overall Site Layout Plan, Grading, & Drainage Plan and Stormwater Management Plan (Exhibits A, B and C) prepared by Gorrill Palmer Consulting Engineers of 707 Sable Oaks Drive, South Portland, Maine dated last revised August 11, 2021 and pursuant to a condition thereof, DC Predevelopment LLC, a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of 100 Commercial Street, Suite 414, Portland, Maine 04101, the owner/operator of the Homeless Services Center facility, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

Maintenance Agreement

That it, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the bio-retention filter systems, Focalpoint® Bio-filtration system, roof line drip edge filter system, grassed underdrained soil filter system, roof drains and related onsite drainage infrastructure, (hereinafter collectively referred to as the "stormwater system"), as shown on the Stormwater Management Plan in Exhibit C and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers (copy attached in Exhibit D) and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner agrees to record a copy of this Agreement in the Cumberland County Registry of Deeds within thirty (30) days of final execution of this Agreement. The Owner further agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Services and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and liened if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax roles on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2021.

_____
(*name of company*)

_____
(*representative of owner, name and title*)

STATE OF MAINE
CUMBERLAND, ss. Date: _____

Personally appeared the above-named _____(*name and title*), and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

_____
Notary Public/Attorney at Law

Print name: _____

Exhibit A: Approved Site Layout Plan
Exhibit B: Approved Grading & Drainage Plan
Exhibit C: Stormwater Management Plan
Exhibit D: Approved Stormwater Inspection and Maintenance Manual

APPENDIX D

Permits for Project

(To be Added at a Subsequent Time)

ATTACHMENT E

AMISTAD
"People Helping People"

August 12, 2021

Amistad's outreach teams interviewed 37 individuals regarding Developers Collaborative's Homeless Services Center proposal, between June 21st and July 16th. All 37 respondents were adults currently experiencing homelessness, and were currently staying either at the Oxford Street Shelter, at a shelter satellite hotel, or at a campsite or other unsheltered arrangement.

Amistad's continuum of outreach programs is staffed by people with lived experience of substance use disorder, mental illness, homelessness, hunger, and other life challenges. The individuals conducting the surveys function as peers and allies with those they support, and their sole objective in conducting the surveys was to amplify the voices of those who are currently unsheltered or currently utilizing Portland's support system for those experiencing homelessness.

Participants were presented with the proposal, and asked to support the process with their thoughts and responses to the following questions:

NOTE: Participants were invited to add comments along with their responses. Specific comments from individual respondents have been recorded but are not included with this summary. The full report, with comments included, will be presented to the HSC design team to aid with their ongoing construction and design efforts.

- Does this design and location seem like it would be a safe place for you to be?
  YES: **28**
  NO: **5**
  UNSURE: **4**

  Does it seem safe for others?
  YES: **26**
  NO: **6**
  UNSURE: **5**

- If you stayed at this shelter, do you think you would hang around all day, or leave during the day and come back at night?
  STAY ALL DAY: **12**
  LEAVE AND RETURN: **9**
  UNSURE or IT WOULD BE DIFFERENT DAY TO DAY: **16**

- There are going to be meals, healthcare services, support groups, housing supports, and one-on-one peer support in the facility. How important are these to you, on a scale of 1 to 5? (1 = not important; 2 = somewhat important; 3 = important, but not very important; 4 = very important; 5 = extremely important)

  Average response:

  Meals: **4.9**

  Healthcare services: **4.7**

  Support groups: **4.2**

  Housing supports: **4.9**

  One-on-one peer support **4.7**

- There are several design features meant to create an environment that feels open, warm, safe, and welcoming, including the concepts below. Do you think these features will help make the place feel open, warm, safe, and welcoming?

˜ Clear sightlines

YES: **30**

NO: **3**

UNSURE: **4**

˜ High ceilings

YES: **31**

NO: **2**

UNSURE: **4**

˜ Natural light

YES: **31**

NO: **0**

UNSURE: **6**

˜ Minimal barriers/Easy-to-navigate space

YES: **35**

NO: **1**

UNSURE: **1**

˜ Efforts to reduce perceived crowdedness within the design

YES: **27**

NO: **3**

UNSURE: **7**

˜ Designated areas that provide a sense of privacy

YES: **35**

NO: **0**

UNSURE: **2**

- Does this building seem too big?

YES: **1**

NO: **33**

UNSURE: **3**

Do the sleeping areas look too big?

YES: **2**

NO: **32**

UNSURE **3**

- Do you think the locker space is adequate?

YES: **18**

NO: **10**

UNSURE: **9**

- Given that the sleeping areas are closed during the day, that means that the indoor space during the day is limited to the Day Room/Cafeteria (the dining tables will be broken down between meals), the entry area, and potentially some intentional space in the hallways. Does this seem like enough space for you, given the number of people that may be in the building at the same time?

YES: **20**

NO: **5**

UNSURE: **12**

- Do you think that transportation during the day will be a problem for you?

YES: **8**

NO: **21**

UNSURE: **8**

- What other features or amenities would help make this HSC positive and successful?

  NOTE: 14 participants responded to this open question. The number (#) following each suggestion refers to the number of respondents who offered the suggestion or notably similar suggestion.

  √ A clearly designated and covered outdoor smoking area (6)
  √ Garden beds (4)
  √ Stipends for live music played by HSC guests (2)
  √ Stipends for art created for the space by HSC guests (3)
  √ Onsite syringe exchange (21)
  √ Flowers and shade trees (5)
  √ A small library, or having the Book-Mobile come regularly (7)
  √ Employment counseling/support (5)
  √ Basketball court (4)
  √ Hammocks (3)
  √ Organized activities and outings during the day (3)

- Please share any other considerations or thoughts.

  NOTE: 8 participants shared concluding thoughts. The number (#) following each thought refers to the number of respondents who offered the thought or notably similar thought.

- Staff should be compassionate and trained to work effectively with people who have been through a lot. (7)
- Having to go through security makes it feel like jail. (1)
- If they could build a full-size storage facility on the property that would help so many of us out. (1)
- I'm someone who probably won't ever sleep at a shelter, no matter how nice it is. If they had a safe, designated space for people to sleep outdoors I would probably do it, because I'm sick of getting moved around all the time. (1)
- Good food is really important. I hope they won't try to save on the cost of food, because when people eat like animals they act like animals. (1)

Summary of First Listening Session, 8/9/21

On August 9th, Amistad hosted a listening session at our Peer Support and Recovery Center, with the intention of providing an opportunity for "peers" to engage in direct communication with the HSC development and design team, and to meaningfully impact the developing HSC concept and its' potential features. Peers, in this case, refers to those who have experienced homelessness in Portland. The group in attendance were individuals whose experiences of homelessness have been chronic and re-occurring. The participating peers shared perspectives that drew on their experiences staying at the Oxford Street Shelter as well as periods of being unsheltered while experiencing homelessness. The group met for three hours with Kevin Bunker from the Developers Collaborative and his design team, and provided a range of opinions and suggestions. During the course of the listening session, attending peers shared the following:

- A desire for multiple outdoor seating arrangements which would provide shelter from the elements and include a possible winter heating source. The idea of having separate outdoor shelters would provide peers with social choice and space for different types of relating. Moreover, outdoor seating would need to be accommodating to daytime resting. Peers also noted the importance of table surfaces throughout the outdoor space.

- Peers brought up the following outdoor amenities as being important:

  - access to drinking water and handwashing stations

- charging stations for cellphones
- an alert system which would be installed on the walkway to the facility for peers arriving to the shelter after dark
- outdoor clocks
- permanent bike locks
- secure outdoor storage

- Peers discussed the pros and cons of a fencing system. Overall, it was felt that NOT having a fencing system would increase the safety of guests, as a fence would limit access to anyone experiencing a medical emergency.

- Peers proposed a memorial space for community members to reflect on personal and collective loss throughout our community. It felt important that the memorial space be in a non-central location as to provide guests with the choice to encounter it or not.

- Peers echoed the designer's idea of a chalk-wall as a space for community expression.

- The full notes from the session are attached as Exhibit A.

Exhibit A
Homeless Services Center Focus Group Meeting – Site Design
8/9/2021
Attendees: 7 individuals currently or recently experiencing homelessness; Amistad peer support facilitators
Attendees from Design Team: Nick Aceto, Grace McNeill, Lisa Whited, and Kevin Bunker

- People who choose to stay outside generally don't want to be outside—they want to not be in the shelter system for a variety of reasons (CTO)
- Simple basic needs—bathrooms and water
- Space for trans and nonbinary people?
- Comfort is a major need (warm, comfortable spaces make a huge difference when you're constantly physically and mentally exhausted)
    - There is a certain comfort in a little leisure
- Stress and addiction makes you behave differently
- More outdoor and comfortable covered spaces
- Perhaps include a less harsh boundary (than a fence) to indicate the edge of property along the north/east side
- Outdoor phone charging and electrical outlets
- Plenty of trash cans
- Access to sharps disposal?
- Include space for shopping cart or other type of cart storage amongst bike storage?
- Need larger storage spaces for backpacks and other belongings
- Consider moveable or fixed furniture? Or both?
- Plenty of covered spaces—mostly for smoking, but also spaces for people to spread out a little
- Will there be an entrance area or separate boundary/area on the property that isn't managed by the city? Likely no.
- Need temporary cover for multiple days of foul weather
- Make sure the site is accessible for those with mobility issues
- Need proper lighting outdoors and indoors—can affect mood and safety of space
- Outdoor showers and bathrooms? Probably unnecessary.
- Raised garden beds had a good reception
- Access to drinking water outside—water bottle filling station?
- Need immobile cigarette butt disposal
- Want to have more activities that don't require staff interaction
- More small covered seating areas like gazebos instead of stage?
- More chalkboard spaces or graffiti tagging wall?
- Some kind of outdoor heating in the seating areas would be good
- Purposeful, built-in spaces that are always there and not controlled by staff will add a sense of autonomy (don't need to wait for staff to put chairs out)
- Want lots of spaces to be able to plug phones in

- Simple digital clocks around outside (to help people keep track of time to make it to relevant appointments)
- Consider including a separate memorial space for those lost in the community (must be a space that is optional to go to—don't want to make people uncomfortable or bring up trauma unnecessarily)
- Might need more than 5 parking spaces for guests— those with cars don't want to lose them and will need somewhere they can leave them safely. Should be able to add parking in future if this proves to be the case.
- Outside tv space? Or projector wall?
- Vending machines?
- Access to strong wifi outside is a must

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

I, Celina Daniell, of Gorrill Palmer, hereby certify that a Neighborhood Meeting was held on Monday, July 26, 2020 at 5:30 P.M. via Zoom Videoconference for the proposed Homeless Service Center project located at 638/654 Riverside Street in Portland, ME.

I also certify that on July 12, 2021 (which is at least ten (10) days prior to the Neighborhood Meeting) invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1,000 feet of a proposed industrial subdivision or industrial zone change.

2. Residents on the "interested parties" list.

Signed,

Celina M. Daniell, Sr. Technical Advisor

August 2, 2021
Date

Attached to this certification are:

1. Copy of the Invitation Sent
2. Meeting Minutes

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\G Abutters\Neighborhood Meeting Certification\certification_neighborhood-meeting.docx

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

NEIGHBORHOOD MEETING MINUTES

Project: **Portland Homeless Service Center – 638/654 Riverside Street**

Date: **July 26, 2021 – 5:30 PM to 6:45 PM**

Location: **Zoom Video Conference**

Attendees: **Steve Bushey & Celina Daniell – Gorrill Palmer**
Kevin Bunker – DC Predevelopment (Applicant)
Steve Weatherhead – WSA Architect
Aaron Fleurant – City of Portland (Applicant)
Tina Pettingill – City of Portland (Applicant)
Kriston Dow – City of Portland (Applicant)
Brian Townsend – Amistad
Aaron Geyer, City of Portland
Members of Public (see list below)

In accordance with the City of Portland Planning Board Requirements, a Neighborhood Meeting was held to discuss the proposed development of a 51,690 SF Homeless Service Center at 638/654 Riverside Street in Portland, ME. The meeting was held on Monday, July 26, 2021 at 5:30 PM via Zoom Conferencing. Steve Bushey, PE and Celina Daniell, representatives from Gorrill Palmer and Kevin Bunker, Applicant were available on via Zoom from 5:20 PM–6:30 PM. with additional Team Members which are noted above

Kevin Bunker started the meeting and gave a brief overview to discuss the major Site and operational elements of the project which included the Major Site Plan and Conditional Applications as well as the neighborhood meeting setup process. After a 5 minute discussion from Kevin, he introduced the project team.

Steve Bushey provided informational slides and gave an overview of the history of the site as well as the proposed site development including project location, zoning requirements, abutting site development. Steve described his role as managing the site aspects of the project which includes stormwater management, utilities, public safety, and permitting. After a 6 minute discussion, Steve Weatherhead from Winton Scott described the architecture, programming, and interior look of the proposed building. This included a discussion on the operations and flow of development pointing out the amenities which will be included on site. Followed by Steve, Nick Aceto, ALA introduced himself and described the landscaping features of the development including the goals of the landscape plan. Nick described some of the features that would be provided on site which includes plantings, courtyards, meditation spaces, garden beds, and designing a welcoming space for guests.

Questions from Public

Sarah Michniewicz had a few questions which included: Why only 35 cafeteria spaces; where are the meals coming from; is there storage for clients; and will there be a sleeping pavilion area and is that something being entertained.

- Steve W. clarified the questions that on the site plan presented there will be 212 seats in the cafeteria.
- The City runs central kitchen that services Portland that they may utilize for meal service - TBD. Also, the facility will have a food prep area.
- There is storage in different areas including large locker room, small spaces in the dormitory area, as well as commitment to do bike storage.
- Kevin B. responded that the sleeping pavilion was an item that was entertained but due to safety reasons there will be no outdoor sleeping pavilion.

Sean Duffy – where are the shelter guests supposed to go or do during the day as he was concerned about the Riverside Street entrance seems dangerous as well as access to paths, etc. Concerned that guests would be just roaming around. He also voiced concerned that Riverside Street is very dangerous and wanted to know if additional bus routes will be provided.

- Steve B. responded by describing the access to the Portland Trails systems that could be utilized by shelter guests. A sidewalk will be completed from the project entrance going north towards Forest Avenue on the site side to an existing sidewalk which people can have access to the Metro, residential housing, and grocery. Kevin B. further clarified that the City of Portland has requested that we provide a guideline similar to TDM plan which addresses access to the services by Metro, etc.
- Kristin Dow clarified the intention and design of this new facility will be to provide services all on site that currently is being provided all over the City. Such as food, medical needs, housing, outdoor activities as well as assistance to anyone who needs it.
- Nick A also described that the proposed site is nearly 7 acres and that the programming has included amenities for the guests to have activities within a safe and secure area. There is about an acre of different amenities being proposed for guests.
- Kevin indicated currently there are no proposed Metro routes at this time.

Zach Thomas – Seacoast Scaffold (abutter) indicated that his company has had issues in the past with theft from existing homeless encampments by the river. How are the surrounding business owner going to be protected by homeless and is the City proposing a safe drug use area at the Shelter.

- Kristin Dow indicated that safe consumption sites are not federally allowed. So that will not be provided. She also indicated that there is a Good Neighbor Policy and a 24 hour hotline for abutting residents if there are any issues that arise.
- Kevin B. addressed the neighborhood impacts question. The proposed management plan will include robust security measures, cameras, and a check in and checkout. The City currently is using this type of programming at the Oxford Street facility.

- Brian Townsend stressed that that intent is to try to engage clients in the services that will be provided. He also indicated that similar to the Oxford Street location that 30 minute perimeter checks will be done by shelter staff and the City's security staff. Provide all services to become self sufficient and inviting partners to the facility.
- Sarah Fleurant introduced herself as the Shelter Director for the Oxford Street location. Her Team will be engaging with the neighborhood to see what they can do to have a positive impact on the community.

Sarah Michniewicz an abutting Oxford Street neighbor wanted to testify that the shelter staff and hotline has been very beneficial and she has only one instance of theft which was not from a shelter guest. She also inquired if someone needed emergent care how would this be taken care of so there isn't people hanging around the facility after hours?

Sarah F. indicated that the Management Plan will be set up for people who needs onsite care/ shelter and will not promote just hanging out. She indicated that they will still continue the Emergent Care program at 39 Forest Avenue which is a 7 day a weekday/time evening hours. If someone comes and needs emergent care that cannot be handled through the Forest Avenue location then a shuttle is being provided to the Riverside Street location. If there is an emergency situation and a person comes the Riverside Street location, they will accept them at the shelter.

Kevin McIntyre wanted to see the site plan and additional description was given.

Mallory – How many SF of the building and Kevin B. indicated 51,690 SF.

Steve B. discussed the ongoing workshop and planning process and what are the next steps.

Kevin thanked everyone and adjourned the meeting at 6:30 p.m.

Attendees: List Above
Anne Pringle
Bob Dunfey
Dan Skinner
Kathy Alves
Trevor Nugent
Zack Thomas
Kevin McIntyre
Sarah Michniewcz
Sean Duffy
Ryan Haskell
T Stackhouse
207.725.0224
Lisa Whited

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

July 12, 2021

Dear Neighbor:

Please join us for a Neighborhood Meeting via Zoom to discuss the proposed development of a 51,690+ SF Homeless Service Center at 654 Riverside Street in Portland, ME. The proposed development will include temporary residential use with kitchen, dining area, staff offices, and a health clinic as well as a parking area, outdoor recreational space and courtyard areas. Pursuant to the City of Portland's COVID guidelines, this meeting is to be held by video conference.

Meeting Location: Join Zoom Meeting
https://us02web.zoom.us/j/89802409766
Meeting ID: 898 0240 9766
Dial by your location
+1 312 626 6799 US (Chicago)
+1 929 205 6099 US (New York)

Meeting Date: **July 26, 2021**

Meeting Time: **5:30 PM – 6:30 PM**

The City Code requires that property owners within 500 feet (except notices must be sent to property owners within 1,000 feet for industrial zoning map amendments and industrial subdivisions) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. We will take attendance and submit a sign-in sheet to the Planning Board. The meeting will last no more than 45-60 minutes.

If you have any questions, please feel free to contact Celina Daniell 207.772.2515 x294.

Sincerely,

GORRILL PALMER

Celina Daniell
Sr. Permitting
cdaniell@gorrillpalmer.com

Note: Under Section 14-32(C) and 14-525 of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within three weeks of submitting a preliminary application or two weeks of submitting a final site plan application, if a preliminary plan was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street, Portland, ME 04101.

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\G Abutters\3824.01_Homeless Facility Notice_07.12.2021.docx

JN	COMPANY	FIRST NAME
3824.01	73 RAINMAKER DRIVE LLC	
3824.01	A HAUSMANN ASSOCIATES INC	
3824.01	ADDISON CAPITAL LLC	
3824.01	AIM RIVERSIDE LLC	
3824.01		MIKE
3824.01		RICKY
3824.01		ERIC
3824.01	BERZINIS REALTY LIMITED LIABILITY COMPANY	
3824.01	BRENNER BROTHERS LLC	
3824.01	CROSSWAYS PARK LLC	
3824.01	DAC LLC	
3824.01	ELLEN LLC	
3824.01		MARK
3824.01		JOHN
3824.01		CLARENCE
3824.01	H FINKELMAN INC	
3824.01	HAKKEN PROPERTIES LLC	
3824.01		BRIAN & SANDRA
3824.01	INTENTIONALLY LEFT BLANK LLC	
3824.01	KELTON REAL ESTATE HOLDINGS LLC	
3824.01	L & L VENTURES INC	
3824.01		MARK
3824.01	LPS PROPERTIES LLC	
3824.01	N & S PROPERTIES LLC	
3824.01	NANGARHAR LLC	
3824.01	NERCC HEADQUARTERS LLC	
3824.01	NORTHERN UTILITIES INC	
3824.01	PORTLAND HOUSING AUTHORITY	
3824.01	PORTLAND WATER DISTRICT	
3824.01	RAS PROPERTIES LLC	
3824.01	RNJ ENTERPRISES LLC	
3824.01	SCA SERVICES OF MAINE INC	
3824.01	SEA SCAFF REALTY OF MAINE LLC	
3824.01	SIX G'S COED LLC	
3824.01		DANIEL & YVONNE
3824.01	SUBURBAN PROPANE LP	
3824.01	TERRACE POND LLC	
3824.01	WASTE MANAGEMENT OF MAINE INC	
3824.01		ROBERT
3824.01		PAYAM
3824.01		ANTHONY
3824.01		BARBARA
3824.01		DAVID

3824.01		DEB
3824.01		DEVON
3824.01	DISTRICT 3	EDWARD
3824.01		JANICE
3824.01		JENNIFER
3824.01	KAPLAN THOMPSON ARCHITECTS	JESSE
3824.01		LYNN
3824.01		MARY
3824.01		NANCY
3824.01		PAM
3824.01		PAUL
3824.01		PEGGY
3824.01		PHILIP
3824.01		PRISCILLA
3824.01	WASTE MANAGEMENT OF MAINE	REBECCA
3824.01	DISTRICT 37	REP GLENN
3824.01		ROBERT

LAST NAME	ADDRESS	CITY	STATE	ZIP
	539 AUBURN ST	PORTLAND	ME	04103
	380 WARREN AVE	PORTLAND	ME	04103
	2 SHADY LN	FALMOUTH	ME	04105
	340 FORE ST	PORTLAND	ME	04101
ALT	36 RAINMAKER DR	PORTLAND	ME	04103
AMES	589 RIVERSIDE ST	PORTLAND	ME	04103
ANDERSON	707 RIVERSIDE ST	PORTLAND	ME	04103
	483 ROOSEVELT TRAIL	WINDHAM	ME	04062
	69 FOUR WINDS RD	PORTLAND	ME	04102
	100 MIDDLE ST	PORTLAND	ME	04101
	31 WALDRON WAY	PORTLAND	ME	04103
	100 COMMERCIAL ST BOX 105	PORTLAND	ME	04101
ERLICH	13 HOLMAN RD	MILLBURY	MA	01527
FAY	36 WALDRON WAY	PORTLAND	ME	04103
FENTON	705 RIVERSIDE ST	PORTLAND	ME	04103
	PO BOX 847	CARLSBAD	CA	92018
	PO BOX 1951	WINDHAM	ME	04062
INGRAHAM	109 ELMWOOD AVE	WESTBROOK	ME	04092
	927 ROUTE 1 BYPASS	PORTSMOUTH	NH	03801
	68 WALDRON WAY	PORTLAND	ME	04103
	PO BOX 6036	FALMOUTH	ME	04105
LIBBY	639 RIVERSIDE ST	PORTLAND	ME	04102
	525 RIVERSIDE ST	PORTLAND	ME	04103
	PO BOX 663	LIMINGTON	ME	04049
	PO BOX 17661	PORTLAND	ME	04112
	750 DORCHESTER AVE	DORCHESTER	MA	02125
	6 LIBERTY LN WEST	HAMPTON	NH	03842
	14 BAXTER BLVD	PORTLAND	ME	04101
	225 DOUGLASS ST	PORTLAND	ME	04102
	110 NEWELL RD	YARMOUTH	ME	04096
	1407 RIVERSIDE ST	PORTLAND	ME	04103
	2000 FOREST AVE	PORTLAND	ME	04103
	PO BOX 1982	PORTLAND	ME	04104
	256 PARK RD	WESTBROOK	ME	04092
SKINNER	625 RIVERSIDE ST	PORTLAND	ME	04103
	PO BOX 206	WHIPPANY	NJ	07981
	723 RIVERSIDE ST OFFICE	PORTLAND	ME	04103
	PO BOX 1450	CHICAGO	IL	60690
WORCESTER	737 RIVERSIDE ST	PORTLAND	ME	04103
YAZDANPANAH	43 CHURCHILL RD	SOUTH PORTLAND	ME	04106
DONOVAN	27 RIVERVIEW STREET	PORTLAND	ME	04102
WOOD	125 EMERY STREET	PORTLAND	ME	04102
NOWLIN	215 OXFORD STREET	PORTLAND	ME	04102

KEENAN	28 DOROTHY STREET	PORTLAND	ME	04103
PLATTE	26 NORTH STREET, 33	PORTLAND	ME	04101
SUSLOVIC	46 KENWOOD STREET	PORTLAND	ME	04103
CARPENTER	9 W. COMMONWEALTH DRIVE	PORTLAND	ME	04103
MUNSON	389 CONGRESS STREET, 4TH FLOOR	PORTLAND	ME	04101
THOMPSON	100 EXCHANGE STREET	PORTLAND	ME	04103
CLARKSON	145 MARLBOROUGH ROAD	PORTLAND	ME	04103
GRIFFITY	6 E. PROM, UNIT 2	PORTLAND	ME	04103
BARTLETT	PO BOX 7965	PORTLAND	ME	04112
BURNSIDE	64 LESTER DRIVE	PORTLAND	ME	04103
DUBOIS	1915 CONGRESS STREET	PORTLAND	ME	04102
MORIN	66 FARNHAM STREET	PORTLAND	ME	04101
HAUGHEY	1660 SOLDIERS FIELD ROAD	BOSTON	MA	02135
LAVALLEE	190 US ROUTE 1, UNIT 2	FALMOUTH	ME	04105
HALLA	2000 FOREST AVENUE	PORTLAND	ME	04103
CUMMINGS	24 NEVENS STREET	PORTLAND	ME	04103
HAINS	250 HOLM AVENUE	PORTLAND	ME	04102-1208

City of Portland Homeless Services Center

Management Plan

I. Overview:

Description:

The City of Portland Homeless Services Center at 654 Riverside Street will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18.

This will continue the city's mission of providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. In partnership with area service providers, we provide services to our consumers with an emphasis on compassion, dignity, respect and the highest standard professional demeanor toward this mission.

In the calendar year 2019 (last full year pre-Covid) the City served nearly 1,700 unduplicated individuals providing over 71,000 bed nights.

The Oxford Street Shelter currently serves a diverse population and we intend to continue that at our Homeless Services Center. We serve homeless women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, as well as those struggling with substance use and mental health. The Homeless Services Center has the capacity to serve an entire community's needs, complementing the smaller specialized shelters in the city and enhancing their capacity through a robust referral process maximizing resources across our system. This provides the highest level of service by those most equipped to help. This Homeless Services Center is designed to be compatible with the latest thinking of service provision, as the hub in the hub and spoke model as detailed in the work of the Statewide Homeless Council.

History of Oxford Street Shelter:

The Oxford Street Shelter opened in December of 1989. At 50 beds, it was the largest adult shelter in the state of Maine. Beds increased to 62 four years later and again to 80 beds in 1996 after leasing the adjacent building due to an increase in homelessness. The City and shelter staff continued to step up and meet community needs as they increased, seeing a rise in census in 1998 and 1999 until reaching 154 beds in 2000. Need continued to increase and community overflows were opened at the Salvation Army and the Preble Street Resource Center. Realizing the limitations of our space on an operational level (not having enough beds, difficulties being spread over multiple floors, transitioning from dorm to day use, etc.) and at the client experience level (not having the dignity of sleeping in a bed, needing to move throughout the day to meet basic needs of food and shelter, etc.), City

leadership started exploring the best way to improve our services and the lives of the people we serve. The process of this pursuit is outlined in **Exhibit 1**.

Impacts of COVID:

Prior to the COVID-19 Pandemic, our current facility at 203 Oxford Street was able to accommodate 154 individuals for overnight shelter. We utilized the Preble Street Resource Center to provide overnight accommodations for additional overflow space increasing capacity by 75 male beds. Our client's additionally utilized Preble Street's congregate soup kitchen for meal services.

At the onset of the pandemic, Oxford Street Shelter consulted with the CDC and reduced its maximum capacity to 75 beds based on their recommendations. Due to social distancing requirements causing the closure of our overflow space and meal facility, we opened a second 24 hour, socially distanced shelter. In addition, our staff began picking up meals three times a day from the Preble Street Soup kitchen and delivering them to our two facilities.

The pandemic has had a large influence on the design of the Homeless Services Center. The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.The footprint of the center has increased to allow for appropriate social distancing in areas where guests will be frequenting, including both the dining and sleeping areas. CDC space recommendations equate to 113 s.f. of floor area be allocated per person in sleeping areas. There is a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. There are 7' to 8' distances typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to afford some privacy and to provide a physical barrier between guests to further protect against COVID transmission. The CDC recommendations also include maintaining 6' distances between guests in eating areas. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

The CDC also provides guidance for HVAC systems to minimize transmission that include: maximization of outside air intake; use of HEPA level filters that are changed out at regular intervals; supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems; humidity control systems. Design staff will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

During the pandemic, our clients were grateful. While many of our community partners understandably closed programs or reduced hours, the City shelter remained open. Many of the spaces individuals had utilized for years were no longer available to them. At Oxford Street, many clients slept, connected with staff for their daily needs and ate their meals in metal folding chairs all in the same room. We feel strongly that clients deserve a better and more dignified space. We have seen that a more dignified space allows clients to feel more self-worth and motivation towards moving forward from temporary emergency shelter.

Lessons Learned:

Running two 24 hour facilities during the pandemic created challenges but also presented learning opportunities. Staff had been envisioning our new Homeless Services Center with a more dignified approach to shelter for some time, well before we began operating a temporary shelter at the Portland Expo.

At the time that we began utilizing the Expo, staff were amazed in the ways in which the open space could be used to create a more all-inclusive shelter: the layout of the Expo building with open site lines, the ability for clients to have more privacy and not need to line up outside, the room to have both day and night spaces set up without needing to be broken down for cleaning (thus shuffling clients around throughout the day), the capacity for providers to meet with their clients on-site, and the space for clients to store their belongings. This aligned with many of our goals for the Homeless Services Center.

Vision of a Homeless Services Center:

It is the goal of the City of Portland to open a new state-of-the-art, one-story, adult emergency shelter to replace the Oxford Street Shelter. The new shelter will be open 24-hours a day, 7-days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 2** for a more comprehensive list of services.

The City of Portland's shelter clients and valued staff deserve to live and work in a respectful and safe environment. We will no longer allow some of our most vulnerable community members to live in inadequate conditions and in locations where they are easily abused, taken advantage of, and judged for their perceived shortcomings.

The new location will be a one story building easily accessible to all. Our clients will be able to access the space 24-hours a day and will not need to leave with their belongings. They will have a large day space with an area for meal services including a kitchen where staff will serve meals. We will have indoor storage lockers, bathrooms, laundry services, and clients will be assigned to beds rather than mats on the floor. Sleeping areas will have beds where each individual will have a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The bed layout will provide increased ability to socially distance and will provide an increased sense of privacy, as beds will be set in quads.

Additionally, our new location will have a full service federally qualified health clinic, offering medical, mental health, substance use treatment, and dental services on-site. We will have small group rooms and offices for peer support and community providers to access, greatly improving the service delivery model and community collaboration.

Importantly, the design of the new facility has been informed not only by the multi-year planning process described elsewhere in this document, but by actual potential users of the facility. As part of the planning and design process, Amistad has conducted current client surveys regarding aspects of the new facility. Additionally, Amistad facilitated a design listening session with unhoused peer groups, who had a chance to offer direct feedback to the developer and the design team in attendance. Further workshops will be held on detailed design (during the architectural design development phase) and on operations (during the construction phase). Amistad's work has been submitted under separate cover as part of the Planning Board application.

Housing Services:

The City is dedicated to providing housing services to all who access our facility. While the pandemic made housing access difficult, our established relationships with landlords continued to afford our clients options to secure housing. In the year of July 1, 2020 to July 1, 2021 the housing team successfully placed 103 individuals into housing. The housing team's extraordinary work is recognized by experts in the field; in 2017, the National Alliance to End Homelessness (NAEH) honored the Oxford Street Shelter for our work on the Long Term Stayers Initiative with their Pioneers in Innovation and Excellence award, highlighting that in "the program's first two years, 125 people – representing a combined 150 years of shelter stays – have been successfully housed."[1]

The Long Term Stayers (LTS) initiative started in April of 2015 when the City collaborated with local housing services providers to target their efforts with a by-name list of the most vulnerable and difficult to house individuals staying at the Oxford Street Shelter. At the time, the shelter had 44% of the state's long term stayers[2]. In Portland, long term stayers are defined as people staying over 180 cumulative days in shelters or outdoors within a 365-day period. This definition was created because HUD's Chronic Homelessness definition did not capture single adults who tend to bounce from shelter to shelter whose lengths of stay in any one shelter do not meet the HUD definition of chronically homeless. From April 2015 through June 2021, this initiative targeted 580 people identified as long term stayers and housed 345 of them. According to their HMIS data, this group collectively had more than 650 years of homelessness, and more than 200,000 total bed nights. There has been a 91.03% success rate in scattered site apartments due to the combination of rental subsidies and support services.

[1] NAEH. (n.d.). *National Alliance to End Homelessness Honors Pioneers inInnovation and Excellence at Annual Awards Ceremony.* End Homelessness. https://endhomelessness.org/wp-content/uploads/2016/10/Awards-Ceremoney-for-distro-101017.pdf
[2] Community Housing of Maine. (2021, July). *Maine's Long Term Stayers Initiative History & Accomplishments* [PowerPoint presentation].

On-Site Services Provided by Community Partners:

An integral part of the design for the Homeless Services Center is a facility that allows for providers to be on-site with our clients. Throughout the planning process we have received great support and commitments from many of our community partners seeking to offer services to clients at the new Homeless Services Center location. (Please see **Exhibit 3** for a list of community partners.) Below are a selection of responses we received from providers describing their plans for outreach and service delivery at the new facility in no particular order:

Greater Portland Health

Through a harm reduction model and through trauma informed approach, we propose to provide primary medical care, behavioral health services, substance use services, infectious disease services, dental services, and outreach support.]The clinic will include two medical providers and two medical assistants along with a dental team consisting of a dentist, hygienist and two dental assistants. Additional staff will include a social worker, a psychiatric nurse practitioner, patient service representative, community health worker and a financial assistance counselor.

Preble Street

Preble Street is very excited about partnering with the City of Portland to support the centralized service model for the Homeless Services Center. Preble Street offers a variety of services that specifically target individuals experiencing homelessness, so having a robust involvement with the Homeless Services Center, the largest emergency shelter in Maine, would be a necessary and important component of their work.

Preble Street would actively seek to have an outreach presence at the new Homeless Services Center through various programs. Preble Street's Veteran Housing Services currently tracks all veterans that enter the emergency shelter system in Maine and would work collaboratively with HSC staff to identify and link homeless veterans with intensive housing-focused case management. Similarly, the Anti-trafficking Services (ATS) offered by Preble Street would serve as a valuable resource for any victims of human trafficking who present at the HSC. In conjunction with providing intensive outreach and case management to these individuals, the ATS team would be available to coordinate services and referrals with HSC staff and able to provide trainings as requested to increase staff's awareness of human trafficking.

Additionally, staff from Preble Street's Rapid-Rehousing Services (RRH) would outreach and engage eligible individuals at the HSC and coordinate services with HSC staff. In its first year of operation, the RRH team enrolled many individuals who regularly stayed at the Oxford Street Shelter and secured permanent housing for a high percentage of these individuals. Given these precedents, it is likely that the HSC would be an important referral source for Preble Street's ongoing RRH work. Along these lines, the Street Outreach Collaborative (SOC), Preble Street's mobile street outreach team which targets individuals experiencing unsheltered homelessness, would work specifically with the unsheltered

community to problem-solve the barriers that may be preventing them from accessing the HSC and other emergency shelters. The SOC would also be able to help HSC staff support clients in maintaining their emergency shelter placement. In its first year of operation, SOC connected 158 individuals to emergency shelters in Portland.

In addition to these service specific outreach efforts, Preble Street Homeless Voices for Justice (HVJ) would also seek to have a presence at the HSC. HVJ currently does regular outreach at Oxford Street Shelter, which they would plan to continue at the new Homeless Services Center. This outreach is done to inform clients of campaigns, to share what HVJ is working on, to hear from clients about what needs are arising, and to build connections between HVJ Advocates and current shelter clients. Additionally, HVJ sees potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, HVJ also hopes to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in advocacy work.

As demonstrated, the clients at the HSC would be an important focus of outreach from a wide variety of Preble Street programs. In addition to this considerable outreach presence, Preble Street envisions a continuation of the close collaboration between the HSC and their emergency shelters (Joe Kreisler Teen Shelter, Florence House Women's Shelter, and the Wellness Shelter) to ensure that youth, vulnerable women, members of the unsheltered community, and other at-risk individuals are triaged and linked to other shelters, as necessary. This would occur because of on-the-ground coordination between HSC and Preble Street staff to help streamline emergency shelter bed management across both organizations and ensure that individual clients are matched to the most appropriate emergency shelter resource available. The Wellness Shelter, in particular, will be an integral part of the City's shelter work and recently an MOU was created between the City of Portland and Preble Street to formalize this: "The Preble Street Wellness Shelter works closely with the City of Portland Oxford Street Shelter to best serve individuals experiencing homelessness and plan effective overflow options. As a result of this partnership, including coordinated assessments and referrals to the Preble Street Wellness Shelter, the number of persons within the City who are unsheltered, unsafe, and become a concern for emergency services is greatly reduced."

Furthermore, Preble Street commits to continued collaboration with HSC staff and clients through Preble Street case management and advocacy programming including the H.O.U.S.E. (Homeless Opioid Users Service and Engagement) program, the Long-Term Stayers meetings, Maine Homeless Legal Aid Project, and needed clinical assessments provided by Preble Street LCSWs.

Homeless Voices for Justice

Homeless Voices for Justice's engagement with the new Homeless Services Center will mirror our current engagement at Oxford Street Shelter. Homeless Voices for Justice currently does regular outreach at Oxford Street Shelter, which we plan to continue at the

new Homeless Services Center. This outreach is done to inform clients of our campaigns, to share what HVJ is working on, to hear from folks about what needs are arising, and to build connections between the Homeless Voices for Justice Program and Advocates and current shelter clients. Additionally, we see potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, we hope to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in our advocacy work.

Spurwink

Spurwink is excited to partner with the City of Portland's new Homeless Services Center (HSC). Currently Spurwink provides Behavioral Health Home, Opioid Health Home, and Assertive Community Treatment services to individuals staying at the Oxford Street Shelter. These services provide an integrated, multi-disciplinary team-based approach to care coordination, treatment, and support. Spurwink will continue to offer these services to clients at the new HSC.

During the pandemic, Spurwink offered emergency medication assisted treatment for opioid use disorder for quarantined clients, committed staff to daily outreach in Deering Oaks and at City Hall during the summer of 2020, and recently committed staff to outreach related to TB testing. We hope to continue these types of innovative partnerships to help meet community needs.

Finally, the City is contracting with Spurwink to hire two Community Engagement Specialists. These staff will be dedicated to the new 22 Park Street housing first collaborative, but will also assist as needed with city-wide outreach and engagement efforts. Spurwink expects these staff members will have a heavy presence at the new HSC.

The HSC offers a terrific opportunity to streamline services for both clients and community providers. Spurwink is excited to support this initiative.

Through These Doors

Through These Doors is Cumberland County's domestic violence resource center, serving victims and survivors of abuse and anyone affected by abuse and other related issues such as stalking, dating abuse, elder abuse, and both human trafficking and sexual abuse in the context of intimate partner relationships. TTD has an important role in working within the City of Portland's array of services to homeless individuals. We know that domestic violence is a leading cause of homelessness, especially for women, and that homeless people are vulnerable to further abuse when they lack housing security. TTD's advocates are trained to provide holistic safety planning, advocacy, support, and resource sharing in the context of the homeless system.

In the City's planned homeless center, we envision embedding a full-time advocate (as funding permits) on-site to be easily accessible. TTD has a wide variety of other services including legal and court advocacy, assistance with legal practices such as protection from abuse orders, navigating the justice system, and engaging and working within the CPS system. Our advocate on-site within the City's planned homeless center will be a link to all other TTD services to provide seamless, consistent services, all free of charge to homeless individuals.

TTD's on-site advocate will also be a resource to City staff as they support homeless individuals dealing with current safety issues and/or long term impacts of violence. TTD advocates work within other systems in Cumberland County (including CPS, law enforcement, and the schools) and we are told that employees within each system appreciate having on-site consultation available.

Amistad

Amistad's contributions to the HSC's model of supports and services will reflect the unique, peer-to-peer role that the agency plays in the community. Amistad's front-line Peer Support Specialists are not social workers or case managers; they are people with life experiences that are relatable to those who may present as guests at the HSC. Peer Support Specialists engage with guests/clients in a manner that is relationship-based, that acknowledges the expertise of each individual within their own life experience, and that allows for each person in the relationship to respectfully challenge the other to recognize their personal opportunities for growth and change.

At the HSC, Amistad's certified Peer Support Specialists will be able to contribute by providing:

- One-to-one peer support with HSC guests. The support offered is relationship-based, goal-focused, and private, and will be provided on-site and by phone or video conference.
- Facilitation of peer support-based groups. Trained facilitators will provide support groups, with a curriculum that will rotate and evolve based on the current needs and interests of the HSC guests.
- Support for the establishment of the HSC's Utilizers Union, and services, in an ombudsman-like role, for HSC management and guests. Identified Peer Support Specialists will hold roles that support the establishment and ongoing functions of a Utilizer's Union at the HSC, and will provide ombudsman-like support between HSC guests and HSC management and staff regarding complaints, areas of tension, and prospective changes to HSC policies and practices.

The Opportunity Alliance

The Opportunity Alliance (TOA) is a dynamic, results-focused Community Action Agency for Cumberland County, which was founded in 1965. TOA provides 50 integrated community based and clinical programs serving more than 20,000 people annually throughout the state of Maine. With over 50 years of experience, TOA draws from a comprehensive set of

programs which address issues such as mental health, substance use, homelessness, lack of basic needs, and access to community supports. Through an extensive array of services, TOA provides opportunities for individuals to stabilize fragile situations and then works with them to achieve self-sufficiency. TOA has strong working relationships with system wide partners and providers including The City of Portland.

TOA's Project for Assistance in Transition of Homelessness (PATH) program is the beginning of services for unsheltered individuals with serious mental health and struggling with substance use, in our state's continuum of care. The PATH team's outreach and engagement component allows these individuals to build trust with a provider. Currently, the PATH team works closely with the Oxford Street Shelter to support individuals to access the shelter.

PATH will continue our collaboration with the new center, by continuing to provide outreach case management services in the community and encourage and support individuals who are interested in accessing the center.

The new center will allow our collaboration to strengthen, as it provides meeting spaces for PATH to work alongside center staff to initiate and complete applications for long term housing and other mainstream services.

Milestone

I am writing to share Milestone Recovery's plan to support the operations of the City of Portland's Homeless Services Center by offering on-site support services. Those services will include the regular presence of our Homeless Outreach and Mobile Engagement (HOME) Team both on the campus and to assist in providing transportation. In addition to the HOME Team supporting the Service Center, we are willing and able to offer our expertise around supporting people with substance use disorder (SUD) through sharing of resources and providing training.

We will continue engaging in coordinated and collaborative support for people that are unhoused and experiencing SUD. Milestone Recovery will also be able to offer group support and will explore offering treatment within the Service Center or engaging in facilitating access and transportation to community-based SUD treatment programming.Through collaboration with other community providers,we seek to support the needs of people who are unhoused through a holistic approach.

Shalom House

Shalom House will:

- Work with the Identified Individuals to provide assistance with housing, housing subsidies and to the extent permitted by funding, staffing, and all applicable state and federal guidelines, including program eligibility; and

- Communicate with the City and/or with the Identified Individuals any deficiencies in applications, issues with continuing required paperwork, and other issues that could jeopardize an Identified Individual's housing at the Homeless Services Center.

Portland Trails

Portland Trails is eager to partner with the City of Portland as well as the staff, service providers and folks who are receiving services at the Service Center. As a land manager of adjacent public conservation land and the trail system that provides both transportation and recreation opportunities for all community members, we will be part of the everyday experience of many service recipients. As a previously industrialized neighborhood invites more human activity, we want to engage in regular dialogue to ensure that transition is as smooth as possible for all.

II. Staffing and Management Responsibilities

Staffing Roles:

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three managers there will be on-site coverage 6am-11pm, as well as 24/7 on-call rotation. Having round-the-clock coverage affords clients the opportunity to connect with a member of the management team whenever desired. This level of access fosters an environment responsive to the needs of our clients.

The Shelter Director is responsible for supervisory and administrative work managing homeless shelters, supervising shelter attendants, security staff, housing counselors, senior human service counselors and managers. This work typically involves the development, planning, promotion, coordination and administration of Division programs. The Program Manager of a City Shelter is directly responsible for the operations and housing programs of the shelter. This position will be directly involved in budget development & management, personnel supervision, and development and implementation of various policies. Regular assessment of program plans and accomplishments will be reviewed in conjunction with the Social Services Division Director. The Director supervises a staff of professional, administrative and support staff, both directly and through designated supervisors. The Shelter Director participates in all grant application processes, program planning, and service evaluations including shelter audits. This position is responsible for meeting program reporting requirements, monitoring outcome measures and expenditures, compliance with all applicable federal and state regulations. The Shelter Director represents Shelter programs in the community, serves as a member of relevant committees, task forces, etc. The Director serves as liaison with community groups and individuals and neighbors regarding homeless issues. Additionally, the Director develops policies and procedures to support complex safety needs associated with homeless shelters.

The Assistant Director of Shelter Operations works a flexible schedule but primarily provides evening management coverage. The Assistant Director of Operations is an administrative management position responsible for oversight of overall shelter operations including

compliance and ADA regulations, purchasing, human resources management, and ensuring overall consistency for shelter operations. This position assists the Shelter Director with compliance of policies, procedures and regulations. In concert with the Shelter Director, this position oversees safety guidelines for facilities. This role is responsible for hiring shelter attendants, security guards and shelter supervisors in consultation with the Shelter Director. The Assistant Director of Operations must have knowledge of local homeless resources, staff supervision, crisis management, experience working with a diverse population including chronically homeless, mentally ill, physically disabled and substance addicted populations.

The Assistant Director of Housing Services works a flexible schedule but primarily provides daytime coverage. This is an administrative/management position responsible for coordinating housing and support services and will provide direct supervision to the Housing Service's Team. This position will be responsible for implementing established shelter policies regarding housing for all clients. This individual will maintain relationships with service providers and landlords that will help benefit our clients. The Assistant Director of Housing Services is responsible for connecting shelter consumers to needed services, including but not limited to mental health, substance use services, and employment services. The Assistant Director of Housing Services must have experience with housing search and placement and a strong understanding of HUD best practices, the ability to communicate effectively and the ability to provide excellent customer service.

In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage. Our supervisors, or Senior Human Service Counselors, will work flexible hours providing both day and overnight coverage to include weekends. They will supervise program staff in the uninterrupted operations of the shelter and are part of the team that facilitates orientation of new program staff. This position assists in staff scheduling and performance evaluations. They will serve as liaisons between community groups and members of the public regarding program issues. They will respond to crises including medical or mental health emergencies, and physical altercations or threats of violence. Senior Human Service Counselors will also provide housing orientation and housing triage to new clients.

The HSC will be staffed 24/7 by our Shelter Attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to every day operations and work a flexible schedule across 24 hours. They will assist new clients with orientation to the facility. Our shelter attendants must possess the experience and the ability to work with clients with mental health and substance use issues. Building on their experience, each Shelter Attendant receives training to provide the following knowledge, skills, and abilities: a working knowledge of shelter policies, procedures and best practices, as well as working knowledge of community resources. This equips shelter staff to support our clients and make the necessary referrals to our housing team, as well as referring to other community partners. With the new model, many referrals will occur on-site, including to the Federally Qualified Health Clinic.

The Homeless Services Center will have a team of dedicated Housing Counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. All of our

Housing Counselors have experience working with the homeless population, housing, mental health, substance use, and community outreach. They have knowledge of the principles and practices of case management/casework. Additionally, they must have working knowledge of mental health, substance use issues and homelessness.

The Homeless Services Center offers housing services to all clients accessing the service center and will have housing staff on-site 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[3]

A key part of our housing team is the Housing Retention Specialists. They connect with clients as they transition from the shelter. In support of the housing-first model, these specialists wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, which can include connecting to community meals. Housing Retention Specialists also work to make appropriate, supportive referrals to medical care and case management services. Our Housing Retention Specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for public reporting. The Administrative Assistant aids management with review of data before grant submissions. This position ensures accurate filing of incoming client intakes and nightly paperwork in accordance with state regulations. They assist in ordering appropriate supplies for the HSC. This person also works with management on specialized tasks, giving great attention to detail and a high level of accuracy.

Our Facilities Team is an integral part of ensuring that the space is a safe, clean and inviting environment for clients to access and staff to work. We have facilities staff on-site from 6am-2am. Our Facilities Team responds to all maintenance emergencies and works with all maintenance vendors to ensure our building and grounds are operating at peak condition. Facilities staff duties include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance as necessary, routine exterior maintenance, including snow removal, and other tasks as required. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

[3] NAEH. (2016, April 16). *Housing First.* End Homelessness. https://endhomelessness.org/resource/housing-first/

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security Staff will have an office located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security Staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. Security Staff are trained to address conflicts that arise on property or grounds and will assist HSC staff and Emergency First Responders in securing an area during an emergency. Security Staff must have strong and effective communication skills, including strong active listening skills and speaking skills as they will be communicating with clients, other staff, first responders and neighbors. Security team members must have excellent customer service skills. Additionally, security staff must have the ability to remain calm during unusual occurrences, disturbances, or other stressful situations.

The management team will meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For a full list please see **Exhibit 4**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Using this client-centered model, staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the Homeless Services Center. If guests need shelter after this program's hours the Homeless Services Center phone number and the after hours General Assistance number will be prominently displayed at the Prevention and Diversion Center, our contact information will be available through 2-1-1 and community outreach programs will have access to our 24-hour line for after hour admissions. Should a client call for assistance after hours, Homeless Services Center staff will provide transportation from the Prevention and Diversion Program to the Homeless Services Center.

The City of Portland does not turn anyone in an emergency of homelessness away. Clients accessing the shelter complete a housing-focused, strengths-based intake assessment, are assessed for symptoms of infectious disease (at which point appropriate medical referrals would be made) and after completion of an intake are assigned a bed.

The Homeless Services Center will continue the City's current model of providing 24 hour continuous services to our clients. Unlike the City's current shelter, clients will have ample room to move throughout the facility, allowing for the space to remain clean, safe and sanitized while not restricting individuals to small areas. Following the lessons learned from the Expo shelter, City staff feel it is best practice to ensure that we have an open facility with clear site lines where clients can have access to services on-site. Clients will have the ability to utilize laundry facilities and shower facilities as needed. On-site meals will be available three times a day, understanding that many of our clients are busy seeking housing or are employed and may miss meal times, staff will ensure clients have access to food outside of those meals. Mail services will be provided on-site to ensure their ability to receive important documents that are imperative to housing: state identification, birth certificates, etc. In addition, clients will have access to their assigned beds throughout the day.

It is important to the City that all clients entering the Homeless Services Center feel comfortable in their sleeping areas. HUD's Equal Access Rule protects the rights of transgender and gender non-conforming people by mandating that "access to shelter and housing must conform with, and adhere to, an individual's self expressed gender identity." [4]. Homeless Services Center staff ask individuals to self-select their dormitory based on their self-identified gender. For individuals who do not feel safe or comfortable sleeping in the men's or the women's dormitories, the City will provide separate sleeping space. Self-identified trans, nonbinary and gender-diverse clients are informed that they can request this accommodation. In addition, the Homeless Services Center will include nine restrooms for clients and three in staff areas which are barrier free, fully accessible and designated gender neutral in addition to the larger restroom facilities.

The new facility will also have an expansive outdoor space-allowing clients to safely gather in a number of private areas. Clients will have access to an enclosed courtyard just off the general dayspace- part of this courtyard will have a covered pavilion for eating space, meeting with community providers and housing workers or social gathering. Additionally, the private courtyard will have exercise facilities and raised garden beds so that clients can participate in growing food for the meals. A green space with a raised platform area will be available for client use. In addition to the raised garden beds, a healing garden will be located on the other side of the facility. This will be a space for quiet reflection, small groups or meetings with community providers and housing staff.

The programmed outdoor spaces detailed above will be fenced. This will be to maintain site control and provide a higher level of protection to those seeking emergency shelter. We will work to ensure this fencing design fits in with the trauma informed design of the property. We will also continue to seek feedback from our neighbors as, and if, operational issues relating to fencing arise.

The security staff will be responsible for monitoring entry and exit into the building, as well as the perimeter entrance and exits via video surveillance. This will leave our front desk staff

[4] NAEH. (n.d.). *Trans and Gender Non-Conforming Homelessness*. End Homelessness. https://endhomelessness.org/trans-and-gender-non-conforming-homelessness/

available to respond to the needs of clients and service providers. The access points to the building include:

- *The primary building entry off Riverside Street*- The HSC's main entryway will be off the well lit and inviting walking path leading from Riverside Street to the HSC. The main doorway will be a dual door system monitored by security staff. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on-site.
- *Controlled External Entrance to locker facilities*- Located in tandem to the primary entrance, clients may first enter the external locker facility. There will be enough on-site locker storage for each client accessing the Homeless Service Center. Clients will have the ability to access their own storage space as needed. This space will exit into the dual door vestibule.
- *Controlled Staff entrance and exit*- These entrances will lead to staff administrative and housing offices, space for community providers to hold confidential meetings with clients, as well as conference room space for on-site lease signings or small trainings.
- *Clinic entrance*- The clinic will be a space that is open to the general community. Clinic staff will have the ability to admit any patient they may be treating.
- *Controlled exit from the dayspace to the private courtyard with covered eating space, controlled exit from the male dormitory to the community garden, controlled exit from the female dormitory to the community garden*- These three exits will be accessible only to individuals who are already accessing the facility and will lead to fenced in areas that provide privacy, confidentiality and safety our clients.
- *Controlled fire exits off dormitories and client bathrooms*- a mandatory number of fire exits that meet the necessary fire code requirements will be located along the rear of the building. These will be accessed in emergency situations and will be accessible for entry to those who have already accessed this facility when needed.
- *Loading and service area*- the secure loading and service area off of the kitchen and dining area will be utilized for food and donation deliveries, as well as pick up of dirty linens and the drop off of clean linens through the City's partnership with the Barron Center. We anticipate food deliveries to occur three times daily, in line with our three meals a day. We also anticipate a daily morning laundry pick up and drop off and will be receiving weekly deliveries for service center supplies.

In accordance with the Americans with Disabilities Act and Chapter 5 of the City of Portland Code of Ordinances, service animals are always welcome and are required to remain on a leash or harness at all times. Pets and other animals, however, are not allowed. We recognize the positive impact and importance companion animals have in the lives of the clients who present with them as well as the barrier to entering shelter their interdiction presents. To mitigate this barrier and improve the experience and housing success of our clients, whenever possible we work with community partners to attempt to find their animals alternative accommodations for the duration of their stay in shelter. This includes collaborating with the animal control officer, leveraging their relationships with local programs and rehousing individuals with their animals as soon as possible.

IV. Transportation

The Homeless Services Center will employ a Transportation Demand Management (TDM) approach to handle client transportation needs. Because most clients are not anticipated to drive, TDM is important beyond its traditional goals of simply reducing vehicle trips. The facility's TDM plan is included as **Exhibit 5**. Some additional points and summary information are below.

The Homeless Services Center will include a City operated 15 passenger van as a shuttle service to clients. The shuttle will operate with regular scheduled trips throughout the day to stop at service centers for appointments as well as get back to the facility, and will include after hours operation on an as needed basis. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize.

As a safety policy, staff operate the shuttle or any City vehicle, in pairs while transporting clients. This allows for the driver to remain fully focused on the safe operation of the vehicle should the passenger staff need to assess a client in medical distress or help to de-escalate any situation in the vehicle. It also allows the passenger to safely assess the vehicle inhabitants and engage with them so that nothing rises to this level of need. For individuals departing directly from the Homeless Services Center our staff will have developed relationships with these clients. They will be aware of whether these individuals are appropriate to transport via the shuttle or may require an alternate form of transport at that time. They will also be able to assess whether some clients may have previous conflicts that might indicate they should be transported separately. For individuals coming from the Prevention and Diversion Center, a safety assessment will be done with all individuals prior to transporting them. Any staff person driving the 15 passenger van must receive training from the City's Safety and Training Officer that includes safe driving practices specific to vans. As a Covid precaution the van and other city vehicles have partitions that have been installed for safety.

In addition to the shuttle van, the Homeless Services Center will continue the long-standing practices of Oxford Street by using taxi vouchers, Metro, and our current sport utility vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the Homeless Services Center will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The Homeless Services Center premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Best practice dictates clear sight lines which will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring

area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

HSC staff will provide once daily checks of the trail system adjacent to the property. Staff will also coordinate with Portland Trails and will participate in their weekly walk of that section of trail.

Cameras will be mounted externally for easy surveillance of the perimeter. Cameras are also mounted in internal common spaces not to include private areas, such as sleeping quarters and restrooms. Camera monitors will be visible from the security office, which will be staffed. Our security staff will review live feed of the cameras and we will also have access to recorded data as needed. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations. This will be reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire Homeless Services Center population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. In addition, all workstations are equipped with panic alarms for any potential emergency. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The Homeless Services Center presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed design impacts client success as well as the neighboring community. This Homeless Services Center was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the

safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 7**). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding good neighbor relations at intake. As stated in the above section *Controls for Client Behavior and Noise Levels*, we feel it is important to provide clients clear expectations of the Homeless Service Center Rules at intake. This ensures clients are aware of the expectations for their behavior while utilizing the HSC and clearly outlines the rules in place to provide safety to clients, staff and the neighborhood. Additionally, we have a Neighborhood Engagement Strategy (please see **Exhibit 8**) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect the Homeless Services Center surroundings, the neighborhood and meet any neighborhood needs or concerns.

The following steps are taken to ensure guests of the HSC are informed and engaged around the rules and expectations of our facility:

- Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations, including the importance of being a good neighbor.
- The Homeless Service Center Staff hold regular house meetings to cover a variety of topics including reinforcement of important shelter rules and guidelines and the importance of being a good neighbor.
- Supervisors and staff meet multiple times daily for "shift change" meetings to pass along critical information, such as any client who may have an important housing appointment they need connecting to, a client who may be struggling due to ongoing mental or physical health concerns, or neighborhood concern that has been relayed that needs ongoing monitoring.
- If needed, staff will meet with clients on an individual basis to address concerns in a proactive manner and work to connect clients with any helpful resources such as but not limited to Cumberland County Crisis through The Opportunity Alliance, Detox and

substance use services, Adult Protective Services, First Responder Services of Portland Medics, Police and Fire and Greater Portland Healths onsite services.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As such, when neighborhood concerns arise, staff take immediate action to resolve the concern. Homeless Service Center staff are committed to working with clients, neighbors, businesses, and community partners until an issue has been resolved.

Mechanisms to resolve neighborhood complaints include, but are not limited to:

- Half-hour perimeter checks of our facility, grounds and surrounding areas, this will include as needed checks of the Portland Trail System.
- As mentioned previously, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. In addition, this will include as-needed, but in any event no less than daily, checks of the Portland Trails System.
- The Homeless Services Center staff will provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. Concerned neighbors are invited to call to discuss any potential issue or concern related to the Homeless Services Center. All calls will be logged and tracked.
- Additionally, The Homeless Service Center will have a member of the management team on call 24/7 to assist in resolving any issue. This allows for swift notification to managers of any neighborhood issue or concern.
- While neighborhood complaints could involve a discussion and staff intervention with a small group or single client of the Homeless Services Center, occasionally larger interventions will include our committed community partners listed in this management plan. Staff may also request assistance from:
    - The HOME Team
    - TOA Crisis Response Team
    - Police Department
    - MEDCU and Fire Department
- Once addressed, a supervisor of the Homeless Services Center will make a return call to the neighbor in order to confirm resolution.
- Calls will be tracked and logged and reviewed monthly at the neighborhood advisory committee meeting.
- The Homeless Services Center staff is happy to meet with all partners and neighbors to ensure a sense of positive community, overall wellbeing and safety.
- The Homeless Services Center will provide a representative to a minimum of 75% of regularly scheduled monthly Neighborhood Association meetings and looks forward to feedback from our neighbors at these meetings.

The City will also create an advisory group consisting of representatives from the neighborhood association, neighborhood residents, area businesses, Portland Police Department, Homeless Service Center staff, Homeless Service Center clients, the District

Attorney's office, Portland Trails and the District 5 City Councilor or his/her designee.[5] Specific members of the Neighborhood Advisory Committee will be identified and finalized before the end of construction of the Homeless Services Center.

For the first year, the Neighborhood Advisory Committee will meet monthly and will be chaired by a representative of the City's executive staff. The group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts and/or improve client services. This group will also provide the review of the Neighborhood Engagement Strategy. Minutes will be recorded and maintained for a 24 month period at the Homeless Service Center and will be made available for review by interested parties. These minutes will reflect specific recommendations of the advisory group and will be annotated to reflect whether these recommendations have been implemented. Upon agreement of the majority of group members, the advisory panel will shift to quarterly meetings in year two.

IX. Monitoring:

The Homeless Services Center management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee, and various housing related boards and committees of the City, such as, but not limited to, the Rent Board and the Housing and Economic Development Committee.

[5] Sauschuck, M. J. (2018, September 8). *Security Planning and Procedures for Proposed Homeless Service Center.* Portland Maine. https://www.portlandmaine.gov/DocumentCenter/View/22367/HSC-Memo

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly and those will be posted on the ESAC webpage which are linked from the City's webpage. Additionally, we post weekly updated data and statistics to the City of Portland Health and Human Services website.

This management plan may be subject to periodic updating and review. As with all elements of an approved plan, proposed changes to the approval require amendments. In the event that changes to the management plan are needed, Health and Human Service Staff shall submit to the Department of Planning & urban Development any proposed amendments to this management plan and the Department of Planning and Urban Development will determine whether such changes qualify as a major amendment, and therefore subject to review and approval by the Planning Board, or whether they qualify as a minor amendment, and may be reviewed and approved by the Planning Authority.

Exhibit 1: Overview of the Process to Replace the Oxford Street Shelter

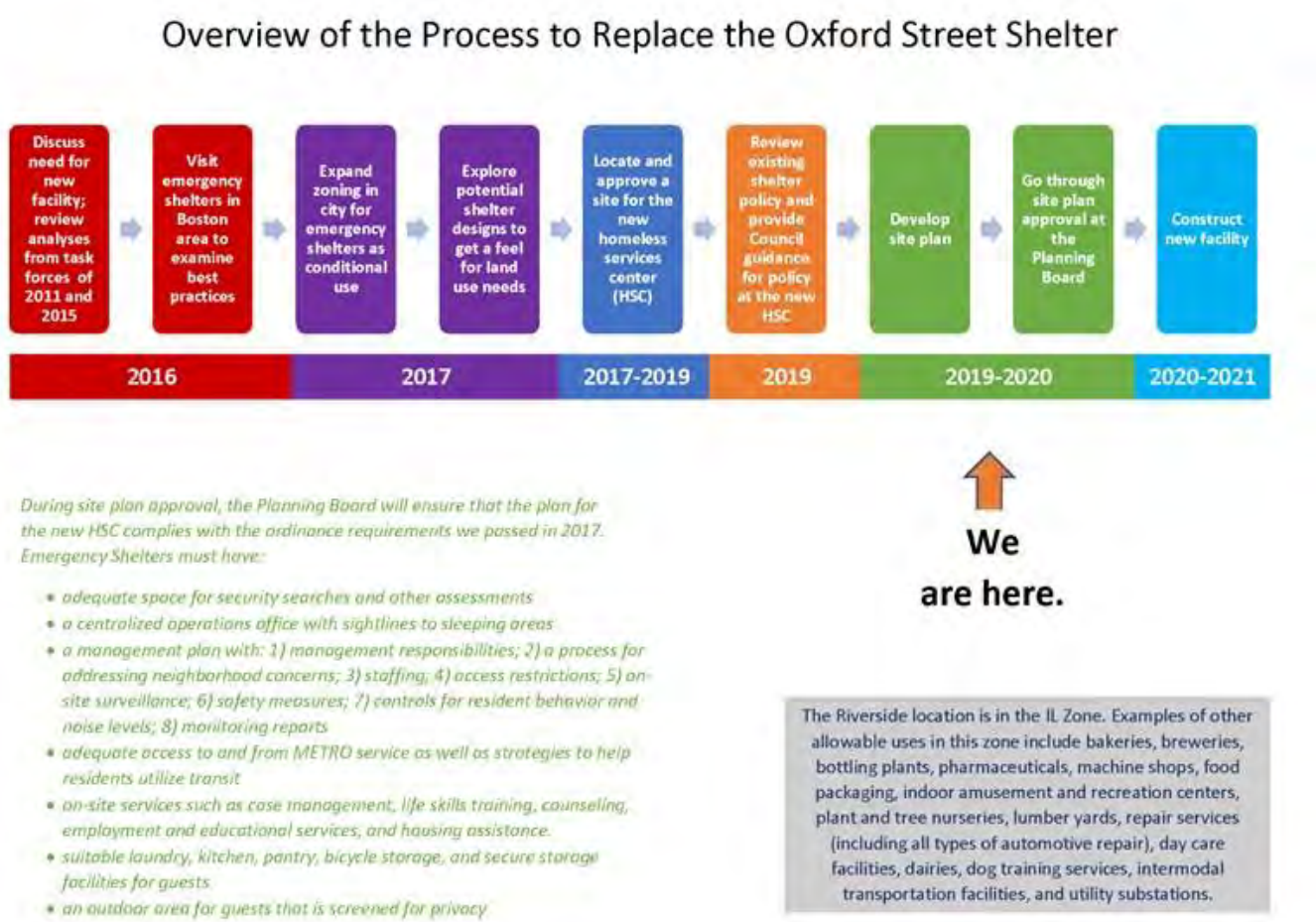

Exhibit 2: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Metro Route 2
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Mail services
- Meals
- On-site health care clinic
    - Primary Medical care
    - Infectious Disease Services
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services
    - Peer support groups

Exhibit 3: Service Providers Planning to Offer Services or Outreach On-Site[6]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - The Public Health Division
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[6] This list appears in alphanumeric order.

Exhibit 4: Staff Training and Professional Development[7]

- **Bloodborne Pathogens training**
  OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure
  Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting HIV, Hepatitis C, or other bloodborne diseases
- **Cardiac Science: AED**
  The Automated External Defibrillator (AED) training teaches basic AED rescue skills and correct defibrillation procedures.
- **Customer Service Training**
  Through this customized training, you will have the opportunity to explore the City's vision, goals, and values and how they relate to a culture of excellent customer service, learn about our new customer service vision, renew your commitment to customer service, learn best practices, reinforce the structures already in place that support great customer service, and identify the things you need to improve customer service.
- **Diversity and Inclusion Workshop**
  The City of Portland is committed to an inclusive workplace in which differences are respected and valued. Portland's demographics are rapidly changing and, by extension, so are our employee, visitor, and customer populations. During this interactive, two-hour workshop, participants will increase their awareness of personal biases - both explicit and implicit - and how they impact the way in which we navigate the world; explore practical, proactive strategies for responding to acts of bias and prejudice; and examine strategies to promote respect for diversity, equity and inclusion within the City.
  https://implicit.harvard.edu/implicit/takeatest.html
  Implicit Association Tests are online tests designed to explore our hidden or implicit biases, aimed to detect the strength of a person's automatic associations between concepts(e.g. women, homosexuals) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). You will be asked to sort pictures and words into groups as fast as you can. IATs evaluate automatic associations on many different topics such as race, religion, gender, sexual orientation, and weight
- **Emergency Action Plan training**
  Helps train employees on what to do in an emergency whether it's a fire, flood or an active shooter. The City has a predetermined emergency action plan to assist employees in knowing what to do in these different emergency situations. The training goes through the plan.
- **Equal Access to Housing training by GLAD**
  This training covers ways you can create a more welcoming and safer environment for LGBTQ persons. Learn the basic concepts and expectations of the HUD Equal Access to Housing rules and what rights are covered under this rule for individuals regardless of their sexual orientation and in accordance with the individual's gender identity, and in a manner that affords equal access to the individual's family.

[7] This list appears in alphanumeric order.

- **First Aid and CPR**
  Providing basic first aid, CPR and knowledge to assist guests until EMS arrives.
- **General Assistance Training**
  An overview of the General Assistance Program and the nuances that impact securing housing for individuals experiencing homelessness.
- **Homeless Management Information Systems trainings**
  -Maine Housing Emergency Shelter and Housing Assistance Program
  -Stability Through Employment Program
  -Rent Smart
  -Data & Security
- **Housing Training for Supervisors**
  An ongoing overview of housing assistance, voucher programs, general assistance, community resources and ways to keep conversations in shelter housing and solutions focused.
- **Human Trafficking in Maine: Identification and Response by Preble Street and Maine Coalition Against Sexual Assault**
  Understand the problem of human trafficking. Learn how to identify survivors of human trafficking. Learn how to meet the needs of people who have been trafficked.
- **In their Shoes Refugee Training**
  This is an interactive simulation provided by Catholic Charities Refugee and Immigration Services. The program is designed to help participants walk in the shoes of a refugee and come to understand the tough decisions faced by someone fleeing for safety.
- **Introduction to Cultural Competency**
  This interactive class explores the various cultures that we inhabit and steps that we can take to become more culturally competent. Cultural competency - the ability to understand, communicate with, and effectively interact with people across various cultures- is a lifelong journey and a skill essential to succeeding in today's culturally-diverse work environment.
- **Language Access Training**
  In this one-hour training, we cover how to identify a Limited English Proficiency individual; the distinctions between interpretation and translation; how to access and best utilize an interpreter; and translation of departments' vital documents. City staff who routinely interact with members of the public are expected to attend.
- **Mental Health First Aid Training Conducted by NAMI Maine**
  Mental Health First Aid is a national best-practice, evidenced-based certification course that is 8 hours in length and leads to a 3 year certification issued by the National Council on Behavioral Health.
- **Military Culture 101**
  A program designed to educate service providers on Military culture and resources Veterans can access.
- **Narcan/Overdose Reversal/Response Training**
  The Public Health Division provides best practice training on recognizing and responding to an overdose, on an as-needed basis, at the request of shelter staff. This training includes: risk factors, prevention strategies, signs and symptoms, and appropriate response, including calling 911 and administering Narcan. In addition to training, the Public Health Division provides Narcan at no cost to the Shelter.
- **National Alliance to End Homelessness Conference & Capitol Hill Day**

The 2019 National Conference on Ending Homelessness and Capitol Hill Day was the nation's largest convening of service providers, leaders, advocates, and consumers working to end homelessness in the United States. The July conference featured dedicated tracks focused on families and youth experiencing homelessness, updated content on chronic homelessness, veterans, single adults, and other populations. Capitol Hill Day offered an opportunity to speak with members of Congress and their staff and advocate directly for the resources that will benefit homeless families, individuals and youth in your districts.[8]

- **New Employee Orientation**
  For all newly hired employees, a New Employee Safety Orientation online training is required to be completed by new hires through our Maine Municipal Association website, NEOgov. This training covers the following safety issues: Accidents and Emergencies, Fire Safety, Preventing Slips, Trips and Falls, Back Safety, Ergonomics for the Office, Personal Protective Equipment, Hazard Communication, Bloodborne Pathogens, Defensive Driving and Equipment Safety.
  In addition, the following City policies are reviewed with new hires within the first 4-6 weeks of their employment: Equal Employment Opportunity and Nondiscrimination Policy, Policy against Harassment, Workplace Conduct Policy, Drug Free Workplace Policy, Work Related Injury Management, Technology Use Policy, and our Communication and Social Media Policy. New hires are provided an overview of policies via a powerpoint presentation either in person or at the employee's discretion (new protocol during response to COVID pandemic).
- **New Per Diem Training**
  Conducted with all new employees, this training is an overview that covers a broad range of topics including customer service, review of shelter policies and safety, emergency response (how to call for assistance in an emergency, how to communicate to dispatch, use of your two way radio), overdose reversal and use of naloxone, scenario training (which can include how to de-escalate a client in distress, use of progressive discipline, etc).
- **Rapid Resolution Housing Training**
  Rapid resolution is a client-centered, problem-solving approach designed to meet the housing stability needs of most persons seeking homeless assistance.
  Client-centered—with a focus on the client's agency in resolving his or her own housing crisis; Flexible–all available housing options are creatively explored through a problem solving conversation; and Immediate–providers recognize a critical window of opportunity to act swiftly to resolve the housing crisis.
- **Reasonable Suspicion for Supervisors**
  This training is to assist when supervisors have evidence or reasonable cause to suspect an employee of drug use. This is needed for the supervisor to know how to follow proper protocols and documentation.
- **Serious Accident Reporting**
  This training defines "serious physical injuries" and the steps to take when reporting to the Maine Department of lAbor is necessary as outlined in the City policy "City of Portland Mandatory Reporting Requirements for Employee On-the-Job Death

[8] "Conferences" *National Alliance to End Homelessness* https://endhomelessness.org/events/conferences/

or Serious Injury Standard Operating Procedure."

- **Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health**
  Trauma-informed care recognizes the physical, mental, behavioral, social and emotional impacts of the experience. Tese training covers core principles and explains Adverse childhood experiences (ACEs) which are stressful or traumatic experiences that happen during the first 18 years of life.
- **Understanding and Supporting LGBTQ Individuals**
  Provides attendees the opportunity to learn more about what it means to be part of the LGBTQ community with special attention given to understanding what it means to be transgender, non binary, and gender non conforming. The presentation will address ways in which City of Portland staff can be more inclusive in their day-to-day work by using inclusive language and terminology, navigating names and pronouns, processing forms and documents, and implementing smart practices to use to make your workspace more inclusive of everyone.
- **Verbal Judo**
  Provides staff with de-escalation techniques through verbal communication to avoid further conflict with individuals including redirection strategies, ultimately decreasing resistance. The goal of the course is to enhance professionalism, decrease community complaints, decrease liability, lessen stress and increase morale for guests employees.
- **Violence Against Women Act training by Through These Doors**
  Provides an overview of the Maine Coalition to End Domestic Violence, the individual resource centers serving Maine and the services offered, presents *Violence Against Women Act overview: "What is VAWA? Who is protected? What programs are impacted?"* and reviews housing protections for survivors and the responsibilities for housing providers.
- **Workers Compensation for Supervisors**
  Explains the procedure for referral to partner urgent care providers and reporting requirements when staff are injured while performing their duties.

Exhibit 5: Transportation Demand Management Plan

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Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street – Portland, Maine
Revised August 31, 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile[1] of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[2]
- Sight lines in each direction at driveway exceed 500 feet[3]
- Driveway separation – 176 feet4
- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 – 16892) yields 14 crashes and Critical Rate Factor (CRF) of 0.785. Riverside Street at the site driveway is not a High Accident Location.

[1] Measure from Forest Ave outbound Transit stop to the proposed door is 2,340 LF or 0.44 mile
[2] MDOT AADT information – Riverside St N/O Warren Avenue
[3] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.
[4] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.
[5] From MDOT for period 01/01/2018 to 12/31/2020

- Collision data for the Intersection of Forest Ave and Riverside Street (Node 16892) yields 41 accidents from 01/01/2018 to 12/31/2020. The intersection is considered a high crash location with a CRF of 1.17. The majority of accidents result from vehicles following too close and driver inattention on the Forest/Route 302 inbound leg and on the Riverside northbound leg. Accidents do not appear to be related to pedestrian crosswalk movements.
- Collision data for Forest Avenue from the Riverside Intersection to the Riverton Drive (nodes 16892 to 18508) yields 5 accidents. This location is not identified as a high accident location. Safety measures at the Transit stop crosswalk include a recently installed Rectangular Rapid Flashing Beacon (RRFB) assembly that is push button activated to signal vehicular traffic of crossing pedestrian movements. The project has also committed to wayfinding strategies to include signage and pavement markings to clearly identify the safe walking route for Shelter users from the transit stops to the Shelter.
- Street lighting from the Forest Ave transit stops to the shelter includes a cobra head light over the outbound transit stop and a streetlight on the NW corner of the Riverside intersection. On Riverside Street there are several pole mounted cobra head streetlights. At least four utility poles are available for additional streetlights if necessary to improve lighting over the proposed 6' wide sidewalk on the west side of the street. Additional lighting will be discussed with the City DPW and CMP.
- Nearby Peak hour traffic volumes are summarized as follows:[6]

TABLE 1
TRIP GENERATION

Site	Traffic Count AM Peak Hour (6:30 – 7:30 am)	Traffic Count PM Peak hour (3:45 – 4:45 pm)	ITE[7] AM Peak Trips	ITE PM Peak Trips
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1,229**	**1,652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 6' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These existing bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding

[6] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)
[7] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;
- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals. There are basically 30 runs from METRO Pulse outbound beginning at 5:45 am and ending at 10:40 pm. The Route 2 alternates hourly service to the Hannaford Street on Riverside and to Prides Corner which does reduce overall service to Westbrook and points west. Saturday service is decreased with 16 outbound runs beginning at 6:20 am and ending at 9:40 pm. Sunday service includes 8 runs from 8:20 am to 3:20 pm.

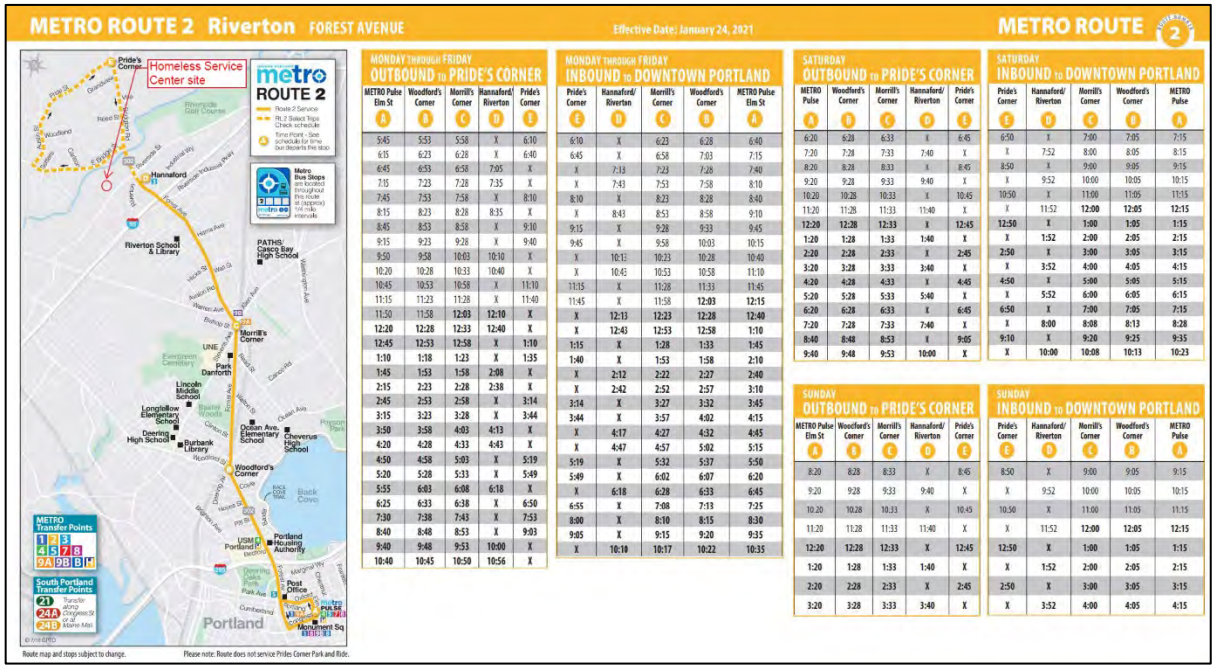


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

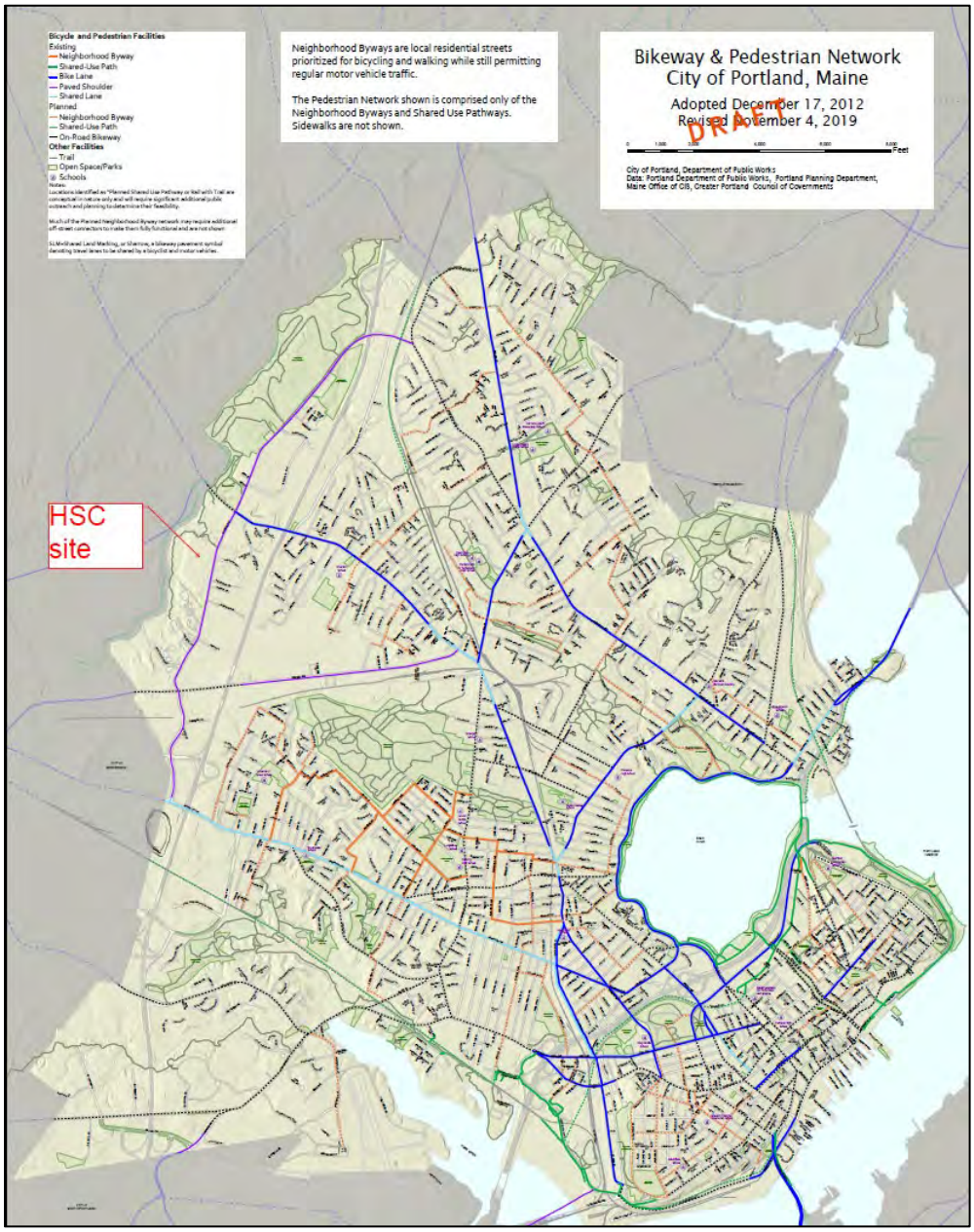


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hour staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however, in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered. A target period of 3 years is set and will be re-evaluated as part of the annual reviews.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN

Agency/Position	Number of Anticipated Vehicles	Time-in	Time-out
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

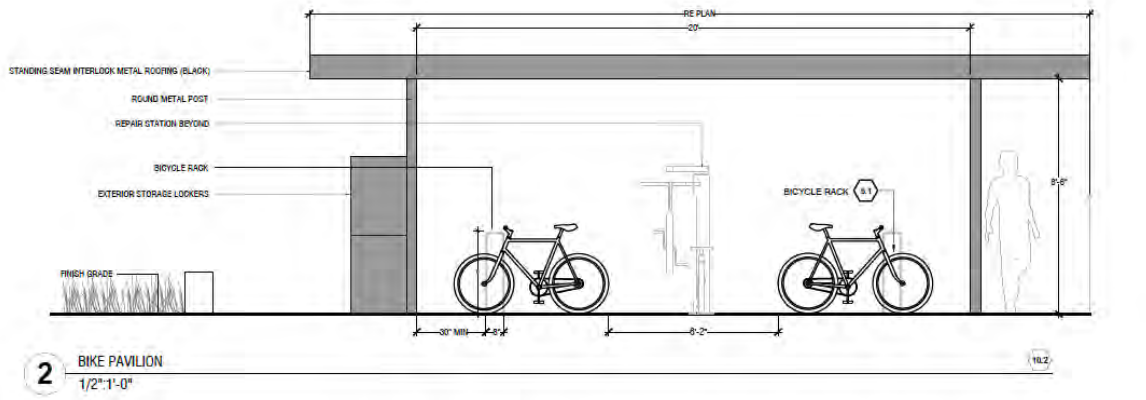
Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.4 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. Currently free bus passes are offered to shelter guests. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Signal improvements will include the implementation of Leading Pedestrian Interval or Blank out signs to prohibit vehicular right turn conflicts with pedestrian crossing movements. Wayfinding signage will be provided at bus stops and along Forest Avenue and Riverside Street to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order. A new bus shelter[8] is proposed for the Inbound transit stop at the Riverton Drive location.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion as detailed as follows:

[8] Per city staff a private fuel station development on Forest Ave is responsible to install the new bus shelter.



The development activity will result in the construction of a new 6' wide City standard paved sidewalk from the Forest Avenue intersection to the site entrance as well as 12' wide paved entry sidewalk into the site. Pedestrian Signal improvements at the Forest Ave/Riverside intersection will be performed for safety and coordination with the existing traffic signals. A restriction on right turns off Forest Ave onto Riverside will be implemented during crossing phases to minimize conflicts with vehicles and pedestrians.

The operators will prioritize the availability of information to guests to include bicycle and walking information. Equipment will be made available to guests to include reflective material for clothing, bicycles and carts. The operator will consider partnership opportunities with support organizations for such things as bike repair training.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; At least 2 spaces closest to the building will be designated for ride share parking; The TDM Coordinator will query staff participants for other possible perks that may interest them that might include gift certificates or similar rewards for promoting and participating in the TDM;
- Implement a ride share registry to match employees interested in ride share;
- Employees are encouraged to bike or walk as part of the City's Wellness Program that offers discounts as part of the health coverage benefits package; and
- Continued participation in the annual Commuter Challenge events.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with staff and guests by acknowledging the challenges associated with TDM goals and objectives that may include lack of access for walking, biking, equipment, ample opportunity for access to transit or other aspects that just make it difficult for guests or staff to participate in TDM strategies. Understanding participant's views and challenges will help inform future modification and improvement to the TDM plan and this will be prioritized as part of the annual reporting.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips

using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

Exhibit 6: Resident Contract

GUEST CONTRACT

The Homeless Services Center is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our facility. Any violations of our safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the building or on the premises is strictly prohibited and could be grounds for restriction from access.
- **Weapons of any kind are not allowed in the building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into the building or waiting areas. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access.**
- **Use of inappropriate speech can result in restriction of access. The City has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The City has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction to access.**
- Sexual activity of any kind is not permitted in the facility or on the grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the facility and on the grounds. This includes wearing shoes while moving around the facility to protect from injury.
- Out of respect for others, cell phones must be turned off or silenced after 8pm in the dorms. Guest phones are available for use. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**
- Electronic devices that do not emit light, are used with headphones and do not disturb other shelter guests may be permitted at the discretion of the supervisor on duty.
- The lights out in the dorms will be 8:30pm.
- Good personal hygiene is a priority. Showers are available with 24 hour access, personal hygiene items are available upon request from staff at the front desk.
- Guest laundry services are available, please see staff for any assistance needed.
- Clean blankets, towels and other linens will be provided.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- Lockers are available on-site. Please see a staff member to sign up. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- The City is not responsible for lost and stolen belongings. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Service Center ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests are expected to attend housing orientation the day following their intake to the service center for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please respect our neighbors and neighborhood at all times.

Agreements

- *I hereby accept shelter at the City of Portland Social Services Division Homeless Services Center and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.*
- *I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.*
- *I authorize the Social Services Division Homeless Service Center to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.*
- *I understand that Service Center Staff and/or management may restrict my access to the facility and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff and relating to staff at the Service Center.*

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 7: Reasonable Rules

HOMELESS SERVICES CENTER POLICY – REASONABLE RULES

The **Homeless Services Center (HSC)** is a City run facility for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in the City run facility. In addition, the City reserves the right to refuse admission to the HSC to any individual whose presence is determined by the City to pose a danger to other individuals residing in the HSC or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in the HSC facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to the facilities or property or neighborhood
- Smoking or vaping is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 8: Neighborhood Engagement Strategy

Homeless Services Center

Neighborhood Engagement Strategy

Staff of the **Homeless Services Center** are committed to maintaining a positive relationship with our surrounding neighbors through engagement and collaboration.

Staff build and maintain good relationships with both clients and neighbors and can assist in neighborhood issues as they arise. We work to ensure client behavior expectations are clear through regular Service Center meetings with clients. A recurring topic at these meetings will include having a positive impact on our neighboring community.

The HSC runs a 24-hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving guests along from a neighbor's front steps, etc. and can decrease police calls for service.

Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

The HSC offers ample locker storage to allow clients a place to leave their belongings while going on housing showings, job interviews, etc.

A representative of the HSC will attend a minimum of 75% of the monthly Riverton Community Association meetings.

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

August 12, 2021

Mr. Matt Grooms
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application – Letter of Response #1
Applicants: DC Predevelopment LLC and City of Portland

Dear Matt:

On behalf of **DC Predevelopment LLC and City of Portland (Applicants)**, our office has received and reviewed the latest Planning Staff review comments from your office on July 23, 2021 in advance of the workshop meeting. As we presented to the Board, we have now updated the plan set to address not only the staff comments as discussed below but also the various comments made by members of the public and the Planning Board members. The updated plans will be uploaded in eplan along with this response letter and the supporting information pieces discussed below. The City of Portland Health and Human Services (HHS) Staff have also updated their Management Plan and that too will be uploaded for Planning Staff review. We offer the following responses to address the comments and questions from the workshop meeting. The first items below are directly from the Planners report. We follow that with our understanding of Public and Planning Board member comments and our responses as necessary.

STAFF REPORT COMMENTS

The following comments were outlined in the Staff report to the Planning Board:

A Site Access, Transportation and Parking

1. *Provide additional information on anticipated parking demand in support of the TDM waiver request. The applicant should also consider strategies for reducing parking demand among both employees and service providers.*

Response: The development team withdraws the waiver request for the TDM Plan and we have now completed a TDM Plan document included in Attachment A that is now part of the overall Management Plan. The TDM Plan outlines the HHS objectives for implementing TDM strategies and incentives for staff, guests, and visitors with the goal of lessening the impact of passenger vehicle transportation to the facility. We note that a primary beneficial outcome of the new Homeless Services Center will be the reduction of traffic onto the Peninsula and specifically in the area of the Oxford Street Shelter.

The City's original RFP contemplated a parking supply of parking for 28 to 30 vehicles. The current Site Plan shows 56 parking spaces including 4 ADA spaces. After a detailed analysis of staffing patterns, and as

detailed in the TDM plan, parking spaces were added to the original plan based on the following specific programming pieces in the building:

- Sixteen (16) offices for services that are expected to be provided at this facility. At times each office may be staffed concurrently.
- Staffing to oversee the dormitories, kitchen spaces, reception, security, and related site programming. As outlined in the TDM there at 63 positions over a 24-hr staffing period with some overlapping shifts and site support functions. Parking flexibility is required due to the overlapping shifts, shuttles services, deliveries and related site/facility program functions.
- Guests – Up to 208 Beds. Although most guests will not arrive by their own personal vehicle, there will be occasions when this does occur.

2. Hold traffic scoping meeting with City staff.

Response: A Traffic Scoping Meeting was held on August 5, 2021 at 10:00 AM with City Staff and our development team representatives. Major items of discussion included parking demand, access conditions, sidewalk access, wayfinding and trip generation. The TDM provides greater detail including the results of adjacent use traffic counts.

3. Provide clarification on how loading bays will function.

Response: The 46' x 115' loading/service area identified on the plan will be at grade with the kitchen and receiving spaces in the building. Normal product deliveries are expected to consist of box trucks and similar smaller sized vehicles. The loading area will have adequate maneuvering space for these vehicle movements. Deliveries will be typically handled by hand or small cart for delivery into the building. Delivery hours are likely to be mostly in the early morning hours and the facility staff will coordinate with delivery vendors for an orderly schedule of deliveries to avoid crowding of vehicles in the loading zone. A fire access gate will be provided on the south end of the loading/service area and when open, the gate will allow access to the perimeter loop around the rear of the building and access to the guest yard spaces located at the south end of the building. There will be no dedicated semi-trailer loading dock as large truck deliveries are expected to be very infrequent.

Emergency vehicles including principally fire apparatus will be able to enter the site via Riverside Street and proceed to circumnavigate the site perimeter via the 24' access drive or 20' wide perimeter loop behind the building. The accompanying AutoTURN analysis provided in Attachment B indicates adequate radii have been provided for the fire trucks around the site.

4. Provide ADA accessible route to established fixed-transit stops.

Response: The Team proposes to construct a new 5' wide paved sidewalk on the west side of Riverside Street, extending from the site driveway north to the existing sidewalk terminus, a distance of approximately 1,250 feet. That distance includes some existing partial sidewalk near the intersection that must be reconstructed to provide full 5' wide and typical City sidewalk compliant conditions. The new sidewalk will be completed in accordance with the City Technical standards for sidewalk construction. When complete, the sidewalk will provide an ADA accessible route from the site to the Forest Avenue/Riverside Street

intersection. At the intersection, pedestrians have access to push button activated crossing signals within the street light system. Transit users will be expected to cross Riverside Street at this location to proceed to/from the existing bus stops, located just approximately 325 feet east of the intersection. Inbound transit users will use the bus stop on the south side of Forest Avenue while outbound transit users coming from intown will exit the bus on the north side of Forest Avenue and must cross either Forest Avenue or Riverside Street to use the proposed sidewalk for access to the Shelter. There is currently a new RRFB warning system at the mid-block crosswalk at the bus stops on Forest Avenue.

5. *Provide evidence in support of the number of parking spaces being provided and consider allocating certain spaces to shelterguests.*

Response: Please see Response A.1 above and the TDM Plan for additional information.

6. *Clarify that all parking spaces shall be made EV-ready.*

Response: The Utility Plan includes EV features at 12 of the parking spaces in accordance with the Technical Standards. The team proposes the installation of additional conduits at the remaining spaces to prepare for future increased demand. The site's electrical controls and panels will be sized for the possibility of increased EV capacity over time.

7. *Provide additional details on site access, specifically with respect to the emergency vehicle access lane.*

Response: The site access consists of a single 24' wide driveway off Riverside Street. The drive will allow for direct access to the primary parking lot and also allow for access to the primary building entrance. The access drive will parallel a 12' wide paved sidewalk that also extends from the street to the building entrance. The design includes raised crosswalks at locations where the vehicular drive will cross the pedestrian route, thus providing an improved safety condition for walkers and also serving to keep vehicular movement slow throughout the primary front yard of the facility.

The emergency access lane is intended to circle the building to allow full access. Outside of the loading area to the left of the main building entrance and the access drive to the parking, the emergency access drive will contain non pavement surface materials to lessen both the visual appearance and account for the lower vehicular use it will see. As suggested by Staff, the perimeter access loop surface will contain a reinforced turf surface that will support the occasional emergency and service vehicles yet be less harsh than pavement for runoff conditions, etc. Several gated openings will be provided for the fence enclosure on the south end of the outdoor guest areas and collapsible bollards are proposed to prevent unauthorized vehicle access around the north end of the building along that perimeter drive.

B. *Site Design and Landscaping*

1. *Provide additional information on building material palette.*

Response: See the accompanying information in Attachment C, from Winton Scott Architects regarding building materials, roof top screening, additional building renderings and an overall architecture summary.

2. *Identify accessible areas of the site for guests, and consider more deliberate accommodation of resident circulation to outdoor spaces, such as the healing garden.*

Response: The accompanying building floor plan includes modifications to the door locations to improve the internal flow and also improve access to the exterior areas including the healing garden space on the north end of the building. The Site Plan includes information on the dedicated ADA routes within the site, which are nearly all areas open to foot traffic to/from the building.

3. *Coordinate with the City Arborist on tree protection in conservation areas, and establishment of a transitional planting zone between site and conservation area.*

Response: ALA Landscape Architects have reached out to Jeff Tarling and await an opportunity to meet with him to discuss the conservation areas, tree protection and transitional planting zones. Additionally, the applicant's landscape architect and engineering team have worked in close coordination to identify significant tree stands, minimize disturbance and updated plans to indicate tree protection. We note that nearly all of the development footprint lies within previously filled land area thus there are very few trees worthy of protection or that will not otherwise be replaced or improved upon with the proposed landscape design.

4. *Consider the use of pervious surface materials within recreational plazas and emergency access lane.*

Response: The site plan includes a reinforced turf surface for the proposed perimeter access loop around the building. The reinforced turf will consist of a GrassPave™ or equal system. The plaza designs have also been improved to include porous pavers as part of the surface materials.

Figure 1 Grasspave™

5. *Coordinate with City on placement and design of street and wayfinding signage.*

Response: The placement and design of wayfinding signage was discussed at the Traffic Scoping Meeting and the development team has agreed to install any and all signage as required by the City. This includes the placement of wayfinding signage from the transit stops on Forest Avenue to the HSC facility. The scope of the actual signage measures will require continued coordination with the City Sign Shop, outside sign vendor, Codes, and HHS to arrive at the graphics and messaging to be provided. Similarly, additional City-wide HSC wayfinding will be pursued in accordance with the City's signage code requirements.

6. *Highlight on the site plan where snow will be stored on site.*

Response: The Site Plan has been updated to include several snow storage locations. During periods of peak snowfall, it may be necessary to have snow removed from the site.

7. *Coordinate with City on finalization of Riverside Subdivision amendment.*

Response: As the City owns the full 28.92-acre Lot 4 we understand that Staff have concluded that a Subdivision Plan Amendment is not required. All space and bulk zoning dimensional standards of compliance have been updated on the Site Plan to reflect this condition. The limits of the Conservation Easement have

also been identified in accordance with previously recorded documents. The project area is approximately 7 acres of the overall Lot 4 area.

C. SLOD, Stormwater, Grading, and Utilities

1. Continue to coordinate with Maine DEP on the SLOD application.

Response: A package of materials satisfying Section 14 of the Technical Manual was delivered to the City on July 24, 2021 for distribution to the Maine Department of Environmental Protection. These materials include the following evidence:

- Financial and Technical Capacity – Similar materials as provided in the Major Site Plan Application.
- Traffic Movement – Not applicable as the project generates less than 100 passenger car equivalents during the peak hour.
- No Adverse effect on the natural environment.
- Soil Types – A preliminary Geotechnical Report by SW Cole Engineering that outlines the recommendations for foundations and site work based on the onsite soils conditions. As well as the preliminary information report outlines recommended considerations for foundations, earthwork, and pavements. Overall, they have concluded the site's soils conditions can be addressed by proper engineering methods.
- Groundwater – The development does not involve the extraction of groundwater or discharges that involve a ground water aquifer.
- Infrastructure – Public utilities including water, sewer, natural gas, power and communications are all available at the site. We have issued "Ability to provide Service" request letters to each of the providers and await their reply.
- Flooding – The project site is not in a mapped floodplain. The site is positioned well above the Presumpscot flood stage which does cover lower areas of the adjacent conservation land, but not the development site. The building finish floor elevation will be at elevation 69.0' (NGVD29) which is well above any nearby flood zones and the base flood elevation of 35.0' as identified on the 2nd Amended Subdivision Plan (see Note 9 on the plan).
- Stormwater Management – A stormwater management system has been designed to provide water quality treatment measures that satisfy the MaineDEP Chapter 500 rules and City of Portland technical standards. A waiver has been requested of the Flooding Standards, based on the site's location within the lower watershed of the Presumpscot River. A similar waiver request was granted for the development of Lot 4-1 for Suburban Propane.

2. Provide details and additional information on stormwater systems, notably the location of vegetative buffers and level spreaders and how such features meet Maine DEP's BMP standards.

Response: A full Stormwater Management Report including supporting calculations, plans and details are included in Attachment D for peer review. The Stormwater Management Plan includes standard BMP's for water quality treatment including multiple vegetated biofilters, grassed underdrained filters, and porous

surfaces. We have examined the site's conditions and included level lip spreaders at drainage outfalls to assure that the existing conditions are satisfactorily stable and acceptable for flow discharges from the development.

3. *Clarify whether the applicant has rights to discharge wastewater to the private sewer at 624 Riverside Street.*

Response: The proposed 8" sanitary service has been modified to extend from the proposed building out to Riverside Street where it will connect to the existing 12" sewer. The service will remain entirely on the development site and will not extend to the private sewer at 624 Riverside Street (Suburban Propane).

4. *Identify the location of the proposed grease trap.*

Response: A 1,000 gallon grease trap is now shown on the Utility plan, positioned just outside of the kitchen space.

5. *Provide updated grading and drainage plan showing the overall site drainage scheme, with greater detail such as spot grades or 0.5-foot contours.*

Response: The Grading and Drainage plan has been updated to include greater detail for spot grades and related information.

6. *Provide utility 'ability to serve' letters once available.*

Response: The utility contact letters have been issued to the Portland Water District, The Department of Public Works, Central Maine Power, and Unitil. Their replies will be provided to planning immediately upon receipt.

7. *Consider additional plantings along steep embankments to provide greater site stabilization.*

Response: A revised planting plan indicating additional plantings along steep slopes has been prepared and included with this submission.

8. *Prepare a stormwater maintenance agreement.*

Response: A Draft Stormwater Management Agreement is included with the Stormwater (O&M Manual) material included with this submission.

Planning Board Member Comments

The following additional general comments were offered by the Planning Board and members of the public beyond various Board comments previously addressed in the above responses. We offer the following additional information:

- *Please provide a write-up of the survey results and the work done directly with persons with lived experience of homelessness.*

Response: A three hour design workshop was held on August 9th, sharing draft plans and taking input and comment. This is the first of several workshops to be held, which focused on site amenities and improvements,

thus allowing for inclusion into the Site Plan process. A summary of the findings as well as the survey are included in Attachment E to this submission. The input did result in significant changes to the site amenities, which are shown in the new Site and Landscape Plans and will be detailed further in the materials to be provided.

- *Identify all existing fencing on/near the site for other lots.*

Response: There are existing fences that surround the Lucas Tree site, the Suburban Propane site and the Seacoast Scaffold site. The images below show some of these existing fences:

Figure 2 Tower

Figure 3 Seacoast Scaffolding

The Lucas Tree property contains fencing along the north and west sides, basically along the proposed shelter boundary. Seacoast Scaffold appears to have chain link security fencing and access gates around their outside materials storage spaces. Similarly, Suburban Propane also has a chain link security fence around the perimeter of the stockyard. Schnitzer recycling further to the south of the proposed shelter site also has chain link security fencing around their perimeter.

Figure 4 Fencing

The applicant is committed to providing a continuous chain link fence from the Riverside Street right of way line along the southerly site boundaries of Lot 3 (Lucas Tree), Lot 4-1 (Suburban Propane), and Lot 1 (Schnitzer). The fence may involve existing fence that may remain in place, new replacement fence and/or new fence on any existing gaps. Prior to any construction, all existing fence locations will be field surveyed for completeness, condition, and location in coordination with adjacent landowners. Any deficiencies will be corrected at Applicant's expense.

- *Show solid waste enclosure.*

Response: The latest site plan includes a 10' x 20' concrete pad and solid waste enclosure that is suitable for a waste container and recycling container. The pad will be located on the south side of the loading/service area. The enclosure will consist of a black vinyl chain link fence with privacy slats like as shown below:

Figure 5 Solid Waste Enclosure

- *AUTOturn figures for loading zone and emergency vehicle circumnavigating the site.*

Response: The accompanying AutoTURN figures included in Attachment B show vehicle movements around the site.

- *Verify tower heights and any fall zones that might apply.*

Response: The Lucas Tree tower is 120 feet tall and according to Jon Belanger of the Portland Fire Department the City's onsite tower is 180 feet tall. There are no known setbacks, and City Staff has confirmed there are no fall zones that apply. The tower is surrounded by a chain link security fence and has a gated opening on the north side. This opening will remain accessible off the proposed entrance driveway for maintenance and access to the tower site.

Figure 6 Towers

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Attachments:

Attachment A – Management Plan
Attachment B – AutoTURN Diagrams
Attachment C – WSA Architectural Information
Attachment D – Stormwater Management Report
Attachment E – HSC Survey and Listening Session Summary

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigfridson, Boulos Co.
Kristen Dow, City of Portland
Steve Weatherhead, Winton Scott Architects
Nick Aceto, ALA

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ATTACHMENT A

City of Portland Homeless Services Center

Management Plan

I. Overview:

Description:

The City of Portland Homeless Services Center at 654 Riverside Street will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18.

This will continue the city's mission of providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. In partnership with area service providers, we provide services to our consumers with an emphasis on compassion, dignity, respect and the highest standard professional demeanor toward this mission.

In the calendar year 2019 (last full year pre-Covid) the City served nearly 1,700 unduplicated individuals providing over 71,000 bed nights.

The Oxford Street Shelter currently serves a diverse population and we intend to continue that at our Homeless Services Center. We serve homeless women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, as well as those struggling with substance use and mental health. The Homeless Services Center has the capacity to serve an entire community's needs, complementing the smaller specialized shelters in the city and enhancing their capacity through a robust referral process maximizing resources across our system. This provides the highest level of service by those most equipped to help. This Homeless Services Center is designed to be compatible with the latest thinking of service provision, as the hub in the hub and spoke model as detailed in the work of the Statewide Homeless Council.

History of Oxford Street Shelter:

The Oxford Street Shelter opened in December of 1989. At 50 beds, it was the largest adult shelter in the state of Maine. Beds increased to 62 four years later and again to 80 beds in 1996 after leasing the adjacent building due to an increase in homelessness. The City and shelter staff continued to step up and meet community needs as they increased, seeing a rise in census in 1998 and 1999 until reaching 154 beds in 2000. Need continued to increase and community overflows were opened at the Salvation Army and the Preble Street Resource Center. Realizing the limitations of our space on an operational level (not having enough beds, difficulties being spread over multiple floors, transitioning from dorm to day use, etc.) and at the client experience level (not having the dignity of sleeping in a bed, needing to move throughout the day to meet basic needs of food and shelter, etc.), City leadership started exploring the best way to improve our services and the lives of the people we serve. The process of this pursuit is outlined in **Exhibit 1**.

Impacts of COVID:

Prior to the COVID-19 Pandemic, our current facility at 203 Oxford Street was able to accommodate 154 individuals for overnight shelter. We utilized the Preble Street Resource Center to provide overnight accommodations for additional overflow space increasing capacity by 75 male beds. Our client's additionally utilized Preble Street's congregate soup kitchen for meal services.

At the onset of the pandemic, Oxford Street Shelter consulted with the CDC and reduced its maximum capacity to 75 beds based on their recommendations. Due to social distancing requirements causing the closure of our overflow space and meal facility, we opened a second 24 hour, socially distanced shelter. In addition, our staff began picking up meals three times a day from the Preble Street Soup kitchen and delivering them to our two facilities.

The pandemic has had a large influence on the design of the Homeless Services Center. The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.The footprint of the center has increased to allow for appropriate social distancing in areas where guests will be frequenting, including both the dining and sleeping areas. CDC space recommendations equate to 113 s.f. of floor area be allocated per person in sleeping areas. There is a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. There are 7' to 8' distances typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to afford some privacy and to provide a physical barrier between guests to further protect against COVID transmission. The CDC recommendations also include maintaining 6' distances between guests in eating areas. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

The CDC also provides guidance for HVAC systems to minimize transmission that include: maximization of outside air intake; use of HEPA level filters that are changed out at regular intervals; supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems; humidity control systems. Design staff will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

During the pandemic, our clients were grateful. While many of our community partners understandably closed programs or reduced hours, the City shelter remained open. Many of the spaces individuals had utilized for years were no longer available to them. At Oxford Street, many clients slept, connected with staff for their daily needs and ate their meals in metal folding chairs all in the same room. We feel strongly that clients deserve a better and more dignified space. We have seen that a more dignified space allows clients to feel more self-worth and motivation towards moving forward from temporary emergency shelter.

Lessons Learned:

Running two 24 hour facilities during the pandemic created challenges but also presented learning opportunities. Staff had been envisioning our new Homeless Services Center with a more dignified approach to shelter for some time, well before we began operating a temporary shelter at the Portland Expo.

At the time that we began utilizing the Expo, staff were amazed in the ways in which the open space could be used to create a more all-inclusive shelter: the layout of the Expo building with open site lines, the ability for clients to have more privacy and not need to line up outside, the room to have both day and night spaces set up without needing to be broken down for cleaning (thus shuffling clients around throughout the day), the capacity for providers to meet with their clients on-site, and the space for clients to store their belongings. This aligned with many of our goals for the Homeless Services Center.

Vision of a Homeless Services Center:

It is the goal of the City of Portland to open a new state-of-the-art, one-story, adult emergency shelter to replace the Oxford Street Shelter. The new shelter will be open 24-hours a day, 7-days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 2** for a more comprehensive list of services.

The City of Portland's shelter clients and valued staff deserve to live and work in a respectful and safe environment. We will no longer allow some of our most vulnerable community members to live in inadequate conditions and in locations where they are easily abused, taken advantage of, and judged for their perceived shortcomings.

The new location will be a one story building easily accessible to all. Our clients will be able to access the space 24-hours a day and will not need to leave with their belongings. They will have a large day space with an area for meal services including a kitchen where staff will serve meals. We will have indoor storage lockers, bathrooms, laundry services, and clients will be assigned to beds rather than mats on the floor. Sleeping areas will have beds where each individual will have a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The bed layout will provide increased ability to socially distance and will provide an increased sense of privacy, as beds will be set in quads.

Additionally, our new location will have a full service federally qualified health clinic, offering medical, mental health, substance use treatment, and dental services on-site. We will have small group rooms and offices for peer support and community providers to access, greatly improving the service delivery model and community collaboration.

Importantly, the design of the new facility has been informed not only by the multi-year planning process described elsewhere in this document, but by actual potential users of the facility. As part of the planning and design process, Amistad has conducted current client surveys regarding aspects of the new facility. Additionally, Amistad facilitated a design listening session with

unhoused peer groups, who had a chance to offer direct feedback to the developer and the design team in attendance. Further workshops will be held on detailed design (during the architectural design development phase) and on operations (during the construction phase). Amistad's work has been submitted under separate cover as part of the Planning Board application.

Housing Services:

The City is dedicated to providing housing services to all who access our facility. While the pandemic made housing access difficult, our established relationships with landlords continued to afford our clients options to secure housing. In the year of July 1, 2020 to July 1, 2021 the housing team successfully placed 103 individuals into housing. The housing team's extraordinary work is recognized by experts in the field; in 2017, the National Alliance to End Homelessness (NAEH) honored the Oxford Street Shelter for our work on the Long Term Stayers Initiative with their Pioneers in Innovation and Excellence award, highlighting that in "the program's first two years, 125 people – representing a combined 150 years of shelter stays – have been successfully housed."[1]

The Long Term Stayers (LTS) initiative started in April of 2015 when the City collaborated with local housing services providers to target their efforts with a by-name list of the most vulnerable and difficult to house individuals staying at the Oxford Street Shelter. At the time, the shelter had 44% of the state's long term stayers[2]. In Portland, long term stayers are defined as people staying over 180 cumulative days in shelters or outdoors within a 365-day period. This definition was created because HUD's Chronic Homelessness definition did not capture single adults who tend to bounce from shelter to shelter whose lengths of stay in any one shelter do not meet the HUD definition of chronically homeless. From April 2015 through June 2021, this initiative targeted 580 people identified as long term stayers and housed 345 of them. According to their HMIS data, this group collectively had more than 650 years of homelessness, and more than 200,000 total bed nights. There has been a 91.03% success rate in scattered site apartments due to the combination of rental subsidies and support services.

On-Site Services Provided by Community Partners:

An integral part of the design for the Homeless Services Center is a facility that allows for providers to be on-site with our clients. Throughout the planning process we have received great support and commitments from many of our community partners seeking to offer services to clients at the new Homeless Services Center location. (Please see **Exhibit 3** for a list of community partners.) Below are a selection of responses we received from providers describing their plans for outreach and service delivery at the new facility in no particular order:

Greater Portland Health

Through a harm reduction model and through trauma informed approach, we propose to provide primary medical care, behavioral health services, substance use services, infectious disease services, dental services, and outreach support.]The clinic will include two medical providers

[1] NAEH. (n.d.). *National Alliance to End Homelessness Honors Pioneers in Innovation and Excellence at Annual Awards Ceremony.* End Homelessness. https://endhomelessness.org/wp-content/uploads/2016/10/Awards-Ceremoney-for-distro-101017.pdf
[2] Community Housing of Maine. (2021, July). *Maine's Long Term Stayers Initiative History & Accomplishments* [PowerPoint presentation].

and two medical assistants along with a dental team consisting of a dentist, hygienist and two dental assistants. Additional staff will include a social worker, a psychiatric nurse practitioner, patient service representative, community health worker and a financial assistance counselor.

Preble Street

Preble Street is very excited about partnering with the City of Portland to support the centralized service model for the Homeless Services Center. Preble Street offers a variety of services that specifically target individuals experiencing homelessness, so having a robust involvement with the Homeless Services Center, the largest emergency shelter in Maine, would be a necessary and important component of their work.

Preble Street would actively seek to have an outreach presence at the new Homeless Services Center through various programs. Preble Street's Veteran Housing Services currently tracks all veterans that enter the emergency shelter system in Maine and would work collaboratively with HSC staff to identify and link homeless veterans with intensive housing-focused case management. Similarly, the Anti-trafficking Services (ATS) offered by Preble Street would serve as a valuable resource for any victims of human trafficking who present at the HSC. In conjunction with providing intensive outreach and case management to these individuals, the ATS team would be available to coordinate services and referrals with HSC staff and able to provide trainings as requested to increase staff's awareness of human trafficking.

Additionally, staff from Preble Street's Rapid-Rehousing Services (RRH) would outreach and engage eligible individuals at the HSC and coordinate services with HSC staff. In its first year of operation, the RRH team enrolled many individuals who regularly stayed at the Oxford Street Shelter and secured permanent housing for a high percentage of these individuals. Given these precedents, it is likely that the HSC would be an important referral source for Preble Street's ongoing RRH work. Along these lines, the Street Outreach Collaborative (SOC), Preble Street's mobile street outreach team which targets individuals experiencing unsheltered homelessness, would work specifically with the unsheltered community to problem-solve the barriers that may be preventing them from accessing the HSC and other emergency shelters. The SOC would also be able to help HSC staff support clients in maintaining their emergency shelter placement. In its first year of operation, SOC connected 158 individuals to emergency shelters in Portland.

In addition to these service specific outreach efforts, Preble Street Homeless Voices for Justice (HVJ) would also seek to have a presence at the HSC. HVJ currently does regular outreach at Oxford Street Shelter, which they would plan to continue at the new Homeless Services Center. This outreach is done to inform clients of campaigns, to share what HVJ is working on, to hear from clients about what needs are arising, and to build connections between HVJ Advocates and current shelter clients. Additionally, HVJ sees potential for future collaboration with the HSC in the areas of voter outreach and HVJ’s You Don’t Need a Home to Vote Campaign, including Candidates’ Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, HVJ also hopes to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in advocacy work.

As demonstrated, the clients at the HSC would be an important focus of outreach from a wide variety of Preble Street programs. In addition to this considerable outreach presence, Preble Street envisions a continuation of the close collaboration between the HSC and their emergency shelters (Joe Kreisler Teen Shelter, Florence House Women's Shelter, and the Wellness Shelter) to ensure that youth, vulnerable women, members of the unsheltered community, and other at-risk individuals are triaged and linked to other shelters, as necessary. This would occur because of on-the-ground coordination between HSC and Preble Street staff to help streamline emergency shelter bed management across both organizations and ensure that individual clients are matched to the most appropriate emergency shelter resource available. The Wellness Shelter, in particular, will be an integral part of the City's shelter work and recently an MOU was created between the City of Portland and Preble Street to formalize this: "The Preble Street Wellness Shelter works closely with the City of Portland Oxford Street Shelter to best serve individuals experiencing homelessness and plan effective overflow options. As a result of this partnership, including coordinated assessments and referrals to the Preble Street Wellness Shelter, the number of persons within the City who are unsheltered, unsafe, and become a concern for emergency services is greatly reduced."

Furthermore, Preble Street commits to continued collaboration with HSC staff and clients through Preble Street case management and advocacy programming including the H.O.U.S.E. (Homeless Opioid Users Service and Engagement) program, the Long-Term Stayers meetings, Maine Homeless Legal Aid Project, and needed clinical assessments provided by Preble Street LCSWs.

Homeless Voices for Justice

Homeless Voices for Justice's engagement with the new Homeless Services Center will mirror our current engagement at Oxford Street Shelter. Homeless Voices for Justice currently does regular outreach at Oxford Street Shelter, which we plan to continue at the new Homeless Services Center. This outreach is done to inform clients of our campaigns, to share what HVJ is working on, to hear from folks about what needs are arising, and to build connections between the Homeless Voices for Justice Program and Advocates and current shelter clients. Additionally, we see potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, we hope to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in our advocacy work.

Spurwink

Spurwink is excited to partner with the City of Portland's new Homeless Services Center (HSC). Currently Spurwink provides Behavioral Health Home, Opioid Health Home, and Assertive Community Treatment services to individuals staying at the Oxford Street Shelter. These services provide an integrated, multi-disciplinary team-based approach to care coordination, treatment, and support. Spurwink will continue to offer these services to clients at the new HSC.

During the pandemic, Spurwink offered emergency medication assisted treatment for opioid use disorder for quarantined clients, committed staff to daily outreach in Deering Oaks and at City

Hall during the summer of 2020, and recently committed staff to outreach related to TB testing. We hope to continue these types of innovative partnerships to help meet community needs.

Finally, the City is contracting with Spurwink to hire two Community Engagement Specialists. These staff will be dedicated to the new 22 Park Street housing first collaborative, but will also assist as needed with city-wide outreach and engagement efforts. Spurwink expects these staff members will have a heavy presence at the new HSC.

The HSC offers a terrific opportunity to streamline services for both clients and community providers. Spurwink is excited to support this initiative.

Through These Doors

Through These Doors is Cumberland County's domestic violence resource center, serving victims and survivors of abuse and anyone affected by abuse and other related issues such as stalking, dating abuse, elder abuse, and both human trafficking and sexual abuse in the context of intimate partner relationships. TTD has an important role in working within the City of Portland's array of services to homeless individuals. We know that domestic violence is a leading cause of homelessness, especially for women, and that homeless people are vulnerable to further abuse when they lack housing security. TTD's advocates are trained to provide holistic safety planning, advocacy, support, and resource sharing in the context of the homeless system.

In the City's planned homeless center, we envision embedding a full-time advocate (as funding permits) on-site to be easily accessible. TTD has a wide variety of other services including legal and court advocacy, assistance with legal practices such as protection from abuse orders, navigating the justice system, and engaging and working within the CPS system. Our advocate on-site within the City's planned homeless center will be a link to all other TTD services to provide seamless, consistent services, all free of charge to homeless individuals.

TTD's on-site advocate will also be a resource to City staff as they support homeless individuals dealing with current safety issues and/or long term impacts of violence. TTD advocates work within other systems in Cumberland County (including CPS, law enforcement, and the schools) and we are told that employees within each system appreciate having on-site consultation available.

Amistad

Amistad's contributions to the HSC's model of supports and services will reflect the unique, peer-to-peer role that the agency plays in the community. Amistad's front-line Peer Support Specialists are not social workers or case managers; they are people with life experiences that are relatable to those who may present as guests at the HSC. Peer Support Specialists engage with guests/clients in a manner that is relationship-based, that acknowledges the expertise of each individual within their own life experience, and that allows for each person in the relationship to respectfully challenge the other to recognize their personal opportunities for growth and change.

At the HSC, Amistad's certified Peer Support Specialists will be able to contribute by providing:

- One-to-one peer support with HSC guests. The support offered is relationship-based, goal-focused, and private, and will be provided on-site and by phone or video conference.
- Facilitation of peer support-based groups. Trained facilitators will provide support groups, with a curriculum that will rotate and evolve based on the current needs and interests of the HSC guests.
- Support for the establishment of the HSC's Utilizers Union, and services, in an ombudsman-like role, for HSC management and guests. Identified Peer Support Specialists will hold roles that support the establishment and ongoing functions of a Utilizer's Union at the HSC, and will provide ombudsman-like support between HSC guests and HSC management and staff regarding complaints, areas of tension, and prospective changes to HSC policies and practices.

The Opportunity Alliance

The Opportunity Alliance (TOA) is a dynamic, results-focused Community Action Agency for Cumberland County, which was founded in 1965. TOA provides 50 integrated community based and clinical programs serving more than 20,000 people annually throughout the state of Maine. With over 50 years of experience, TOA draws from a comprehensive set of programs which address issues such as mental health, substance use, homelessness, lack of basic needs, and access to community supports. Through an extensive array of services, TOA provides opportunities for individuals to stabilize fragile situations and then works with them to achieve self-sufficiency. TOA has strong working relationships with system wide partners and providers including The City of Portland.

TOA's Project for Assistance in Transition of Homelessness (PATH) program is the beginning of services for unsheltered individuals with serious mental health and struggling with substance use, in our state's continuum of care. The PATH team's outreach and engagement component allows these individuals to build trust with a provider. Currently, the PATH team works closely with the Oxford Street Shelter to support individuals to access the shelter.

PATH will continue our collaboration with the new center, by continuing to provide outreach case management services in the community and encourage and support individuals who are interested in accessing the center.

The new center will allow our collaboration to strengthen, as it provides meeting spaces for PATH to work alongside center staff to initiate and complete applications for long term housing and other mainstream services.

Milestone

I am writing to share Milestone Recovery's plan to support the operations of the City of Portland's Homeless Services Center by offering on-site support services. Those services will include the regular presence of our Homeless Outreach and Mobile Engagement (HOME) Team both on the campus and to assist in providing transportation. In addition to the HOME Team supporting the Service Center, we are willing and able to offer our expertise around

supporting people with substance use disorder (SUD) through sharing of resources and providing training.

We will continue engaging in coordinated and collaborative support for people that are unhoused and experiencing SUD. Milestone Recovery will also be able to offer group support and will explore offering treatment within the Service Center or engaging in facilitating access and transportation to community-based SUD treatment programming. Through collaboration with other community providers, we seek to support the needs of people who are unhoused through a holistic approach.

Shalom House

Shalom House will:

- Work with the Identified Individuals to provide assistance with housing, housing subsidies and to the extent permitted by funding, staffing, and all applicable state and federal guidelines, including program eligibility; and
- Communicate with the City and/or with the Identified Individuals any deficiencies in applications, issues with continuing required paperwork, and other issues that could jeopardize an Identified Individual's housing at the Homeless Services Center.

II. Staffing and Management Responsibilities

Staffing Roles:

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three managers there will be on-site coverage 6am-11pm, as well as 24/7 on-call rotation. Having round-the-clock coverage affords clients the opportunity to connect with a member of the management team whenever desired. This level of access fosters an environment responsive to the needs of our clients.

The Shelter Director is responsible for supervisory and administrative work managing homeless shelters, supervising shelter attendants, security staff, housing counselors, senior human service counselors and managers. This work typically involves the development, planning, promotion, coordination and administration of Division programs. The Program Manager of a City Shelter is directly responsible for the operations and housing programs of the shelter. This position will be directly involved in budget development & management, personnel supervision, and development and implementation of various policies. Regular assessment of program plans and accomplishments will be reviewed in conjunction with the Social Services Division Director. The Director supervises a staff of professional, administrative and support staff, both directly and through designated supervisors. The Shelter Director participates in all grant application processes, program planning, and service evaluations including shelter audits. This position is responsible for meeting program reporting requirements, monitoring outcome measures and expenditures, compliance with all applicable federal and state regulations. The Shelter Director represents Shelter programs in the community, serves as a member of relevant committees, task forces, etc. The Director serves as liaison with community groups and individuals and neighbors regarding homeless issues.

Additionally, the Director develops policies and procedures to support complex safety needs associated with homeless shelters.

The Assistant Director of Shelter Operations works a flexible schedule but primarily provides evening management coverage. The Assistant Director of Operations is an administrative management position responsible for oversight of overall shelter operations including compliance and ADA regulations, purchasing, human resources management, and ensuring overall consistency for shelter operations. This position assists the Shelter Director with compliance of policies, procedures and regulations. In concert with the Shelter Director, this position oversees safety guidelines for facilities. This role is responsible for hiring shelter attendants, security guards and shelter supervisors in consultation with the Shelter Director. The Assistant Director of Operations must have knowledge of local homeless resources, staff supervision, crisis management, experience working with a diverse population including chronically homeless, mentally ill, physically disabled and substance addicted populations.

The Assistant Director of Housing Services works a flexible schedule but primarily provides daytime coverage. This is an administrative/management position responsible for coordinating housing and support services and will provide direct supervision to the Housing Service's Team. This position will be responsible for implementing established shelter policies regarding housing for all clients. This individual will maintain relationships with service providers and landlords that will help benefit our clients. The Assistant Director of Housing Services is responsible for connecting shelter consumers to needed services, including but not limited to mental health, substance use services, and employment services. The Assistant Director of Housing Services must have experience with housing search and placement and a strong understanding of HUD best practices, the ability to communicate effectively and the ability to provide excellent customer service.

In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage. Our supervisors, or Senior Human Service Counselors, will work flexible hours providing both day and overnight coverage to include weekends. They will supervise program staff in the uninterrupted operations of the shelter and are part of the team that facilitates orientation of new program staff. This position assists in staff scheduling and performance evaluations. They will serve as liaisons between community groups and members of the public regarding program issues. They will respond to crises including medical or mental health emergencies, and physical altercations or threats of violence. Senior Human Service Counselors will also provide housing orientation and housing triage to new clients.

The HSC will be staffed 24/7 by our Shelter Attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to everyday operations and work a flexible schedule across 24 hours. They will assist new clients with orientation to the facility. Our shelter attendants must possess the experience and the ability to work with clients with mental health and substance use issues. Building on their experience, each Shelter Attendant receives training to provide the following knowledge, skills, and abilities: a working knowledge of shelter policies, procedures and best practices, as well as working knowledge of community resources. This equips shelter staff to support our clients and make the necessary referrals to our housing team, as well as referring to other community partners. With the new model, many referrals will occur on-site, including to the Federally Qualified Health Clinic.

The Homeless Services Center will have a team of dedicated Housing Counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. All of our Housing Counselors have experience working with the homeless population, housing, mental health, substance use, and community outreach. They have knowledge of the principles and practices of case management/casework. Additionally, they must have working knowledge of mental health, substance use issues and homelessness.

The Homeless Services Center offers housing services to all clients accessing the service center and will have housing staff on-site 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[3]

A key part of our housing team is the Housing Retention Specialists. They connect with clients as they transition from the shelter. In support of the housing-first model, these specialists wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, which can include connecting to community meals. Housing Retention Specialists also work to make appropriate, supportive referrals to medical care and case management services. Our Housing Retention Specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for public reporting. The Administrative Assistant aids management with review of data before grant submissions. This position ensures accurate filing of incoming client intakes and nightly paperwork in accordance with state regulations. They assist in ordering appropriate supplies for the HSC. This person also works with management on specialized tasks, giving great attention to detail and a high level of accuracy.

Our Facilities Team is an integral part of ensuring that the space is a safe, clean and inviting environment for clients to access and staff to work. We have facilities staff on-site from 6am-2am. Our Facilities Team responds to all maintenance emergencies and works with all maintenance vendors to ensure our building and grounds are operating at peak condition. Facilities staff duties include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance as necessary, routine exterior maintenance, including snow removal, and other tasks as required. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

[3] NAEH. (2016, April 16). *Housing First.* End Homelessness. https://endhomelessness.org/resource/housing-first/

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security Staff will have an office located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security Staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. Security Staff are trained to address conflicts that arise on property or grounds and will assist HSC staff and Emergency First Responders in securing an area during an emergency. Security Staff must have strong and effective communication skills, including strong active listening skills and speaking skills as they will be communicating with clients, other staff, first responders and neighbors. Security team members must have excellent customer service skills. Additionally, security staff must have the ability to remain calm during unusual occurrences, disturbances, or other stressful situations.

The management team will meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For a full list please see **Exhibit 4**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Using this client-centered model, staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the Homeless Services Center. If guests need shelter after this program's hours the Homeless Services Center phone number and the afterhours General Assistance number will be prominently displayed at the Prevention and Diversion Center, our contact information will be available through 2-1-1 and community outreach programs will have access to our 24-hour line for after hour admissions. Should a client call for assistance after hours, Homeless Services Center staff will provide transportation from the Prevention and Diversion Program to the Homeless Services Center.

The City of Portland does not turn anyone in an emergency of homelessness away. Clients accessing the shelter complete a housing-focused, strengths-based intake assessment, are assessed for symptoms of infectious disease (at which point appropriate medical referrals would be made) and after completion of an intake are assigned a bed.

The Homeless Services Center will continue the City's current model of providing 24 hour continuous services to our clients. Unlike the City's current shelter, clients will have ample room to move throughout the facility, allowing for the space to remain clean, safe and sanitized while not restricting individuals to small areas. Following the lessons learned from the Expo shelter,

City staff feel it is best practice to ensure that we have an open facility with clear site lines where clients can have access to services on-site. Clients will have the ability to utilize laundry facilities and shower facilities as needed. On-site meals will be available three times a day, understanding that many of our clients are busy seeking housing or are employed and may miss mealtimes, staff will ensure clients have access to food outside of those meals. Mail services will be provided on-site to ensure their ability to receive important documents that are imperative to housing: state identification, birth certificates, etc. In addition, clients will have access to their assigned beds throughout the day.

It is important to the City that all clients entering the Homeless Services Center feel comfortable in their sleeping areas. HUD's Equal Access Rule protects the rights of transgender and gender non-conforming people by mandating that "access to shelter and housing must conform with, and adhere to, an individual's self-expressed gender identity." [4]. Homeless Services Center staff ask individuals to self-select their dormitory based on their self-identified gender. For individuals who do not feel safe or comfortable sleeping in the men's or the women's dormitories, the City will provide separate sleeping space. Self-identified trans, nonbinary and gender-diverse clients are informed that they can request this accommodation. In addition, the Homeless Services Center will include nine restrooms for clients and three in staff areas which are barrier free, fully accessible and designated gender neutral in addition to the larger restroom facilities.

The new facility will also have an expansive outdoor space-allowing clients to safely gather in a number of private areas. Clients will have access to an enclosed courtyard just off the general dayspace- part of this courtyard will have a covered pavilion for eating space, meeting with community providers and housing workers or social gathering. Additionally, the private courtyard will have exercise facilities and raised garden beds so that clients can participate in growing food for the meals. A green space with a raised platform area will be available for client use. In addition to the raised garden beds, a healing garden will be located on the other side of the facility. This will be a space for quiet reflection, small groups or meetings with community providers and housing staff.

The programmed outdoor spaces detailed above will be fenced. This will be to maintain site control and provide a higher level of protection to those seeking emergency shelter. We will work to ensure this fencing design fits in with the trauma informed design of the property. We will also continue to seek feedback from our neighbors as, and if, operational issues relating to fencing arise.

The security staff will be responsible for monitoring entry and exit into the building, as well as the perimeter entrance and exits via video surveillance. This will leave our front desk staff available to respond to the needs of clients and service providers. The access points to the building include:

- *The primary building entry off Riverside Street*- The HSC's main entryway will be off the well-lit and inviting walking path leading from Riverside Street to the HSC. The main doorway will be a dual door system monitored by security staff. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with

[4] NAEH. (n.d.). *Trans and Gender Non-Conforming Homelessness*. End Homelessness. https://endhomelessness.org/trans-and-gender-non-conforming-homelessness/

shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on-site.

- *Controlled External Entrance to locker facilities*- Located in tandem to the primary entrance, clients may first enter the external locker facility. There will be enough on-site locker storage for each client accessing the Homeless Service Center. Clients will have the ability to access their own storage space as needed. This space will exit into the dual door vestibule.
- *Controlled Staff entrance and exit*- These entrances will lead to staff administrative and housing offices, space for community providers to hold confidential meetings with clients, as well as conference room space for on-site lease signings or small trainings.
- *Clinic entrance*- The clinic will be a space that is open to the general community. Clinic staff will have the ability to admit any patient they may be treating.
- *Controlled exit from the dayspace to the private courtyard with covered eating space, controlled exit from the male dormitory to the community garden, controlled exit from the female dormitory to the community garden*- These three exits will be accessible only to individuals who are already accessing the facility and will lead to fenced in areas that provide privacy, confidentiality and safety our clients.
- *Controlled fire exits off dormitories and client bathrooms*- a mandatory number of fire exits that meet the necessary fire code requirements will be located along the rear of the building. These will be accessed in emergency situations and will be accessible for entry to those who have already accessed this facility when needed.
- *Loading and service area*- the secure loading and service area off of the kitchen and dining area will be utilized for food and donation deliveries, as well as pick up of dirty linens and the drop off of clean linens through the City's partnership with the Barron Center. We anticipate food deliveries to occur three times daily, in line with our three meals a day. We also anticipate a daily morning laundry pick up and drop off and will be receiving weekly deliveries for service center supplies.

In accordance with the Americans with Disabilities Act and Chapter 5 of the City of Portland Code of Ordinances, service animals are always welcome and are required to remain on a leash or harness at all times. Pets and other animals, however, are not allowed. We recognize the positive impact and importance companion animals have in the lives of the clients who present with them as well as the barrier to entering shelter their interdiction presents. To mitigate this barrier and improve the experience and housing success of our clients, whenever possible we work with community partners to attempt to find their animals alternative accommodations for the duration of their stay in shelter. This includes collaborating with the animal control officer, leveraging their relationships with local programs and rehousing individuals with their animals as soon as possible.

IV. Transportation

The Homeless Services Center will employ a Transportation Demand Management (TDM) approach to handle client transportation needs. Because most clients are not anticipated to drive, TDM is important beyond its traditional goals of simply reducing vehicle trips. The facility's TDM plan is included as **Exhibit 5**. Some additional points and summary information are below.

The Homeless Services Center will include a City operated 15 passenger van as a shuttle service to clients. The shuttle will operate with regular scheduled trips throughout the day to stop at service centers for appointments as well as get back to the facility, and will include afterhours operation on an as needed basis. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize.

As a safety policy, staff operate the shuttle or any City vehicle, in pairs while transporting clients. This allows for the driver to remain fully focused on the safe operation of the vehicle should the passenger staff need to assess a client in medical distress or help to de-escalate any situation in the vehicle. It also allows the passenger to safely assess the vehicle inhabitants and engage with them so that nothing rises to this level of need. For individuals departing directly from the Homeless Services Center our staff will have developed relationships with these clients. They will be aware of whether these individuals are appropriate to transport via the shuttle or may require an alternate form of transport at that time. They will also be able to assess whether some clients may have previous conflicts that might indicate they should be transported separately. For individuals coming from the Prevention and Diversion Center, a safety assessment will be done with all individuals prior to transporting them. Any staff person driving the 15 passenger van must receive training from the City's Safety and Training Officer that includes safe driving practices specific to vans. As a Covid precaution the van and other city vehicles have partitions that have been installed for safety.

In addition to the shuttle van, the Homeless Services Center will continue the long-standing practices of Oxford Street by using taxi vouchers, Metro, and our current sport utility vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the Homeless Services Center will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The Homeless Services Center premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Best practice dictates clear sight lines which will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

Cameras will be mounted externally for easy surveillance of the perimeter. Cameras are also mounted in internal common spaces not to include private areas, such as sleeping quarters and restrooms. Camera monitors will be visible from the security office, which will be staffed. Our security staff will review live feed of the cameras and we will also have access to recorded data as needed. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations. This will be reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire Homeless Services Center population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. In addition, all workstations are equipped with panic alarms for any potential emergency. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The Homeless Services Center presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed design impacts client success as well as the neighboring community. This Homeless Services Center was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 7**). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding being a good neighbor at intake. Additionally, we have a Neighborhood Engagement Strategy (please see **Exhibit 8**) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect the Homeless Services Center surroundings, the neighborhood and any neighborhood needs or concerns.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As mentioned above, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. The Homeless Services Center staff will provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. Concerned neighbors are invited to call to discuss any potential issue or concern related to the Homeless Services Center. The Homeless Services Center will provide a representative to 75% of regularly scheduled monthly Neighborhood Association meetings. All neighborhood complaints will be shared promptly amongst the management and supervisory team to best plan to remediate any issues. While neighborhood complaints could involve a discussion and intervention with a small group or single client of the Homeless Services Center, occasionally larger interventions will include our community partners listed in this management plan. Staff may also request assistance from our first responders in the Police Department, MEDCU and Fire Department. The Homeless Services Center staff is happy to collaborate with all partners and neighbors for a sense of positive community, overall wellbeing and safety.

The City will also create an advisory group consisting of representatives from the neighborhood, area businesses, Portland Police Department , Homeless Service Center staff, Homeless Service Center clients, and an elected city official.[5] For the first year, this group will meet monthly and will be chaired by a representative of the City's executive staff. The group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts and/or improve client services. Upon agreement of the majority of group members, the advisory panel will shift to quarterly meetings in year two.

IX. Monitoring:

The Homeless Services Center management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bed-nights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay

[5] Sauschuck, M. J. (2018, September 8). *Security Planning and Procedures for Proposed Homeless Service Center.* Portland Maine. https://www.portlandmaine.gov/DocumentCenter/View/22367/HSC-Memo

(vii) Number of housing placements

(viii) Record of neighborhood concerns and resolutions

(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses

(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously

(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes

(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee, and various housing related boards and committees of the City, such as, but not limited to, the Rent Board and the Housing and Economic Development Committee.

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly.

Exhibit 1: Overview of the Process to Replace the Oxford Street Shelter

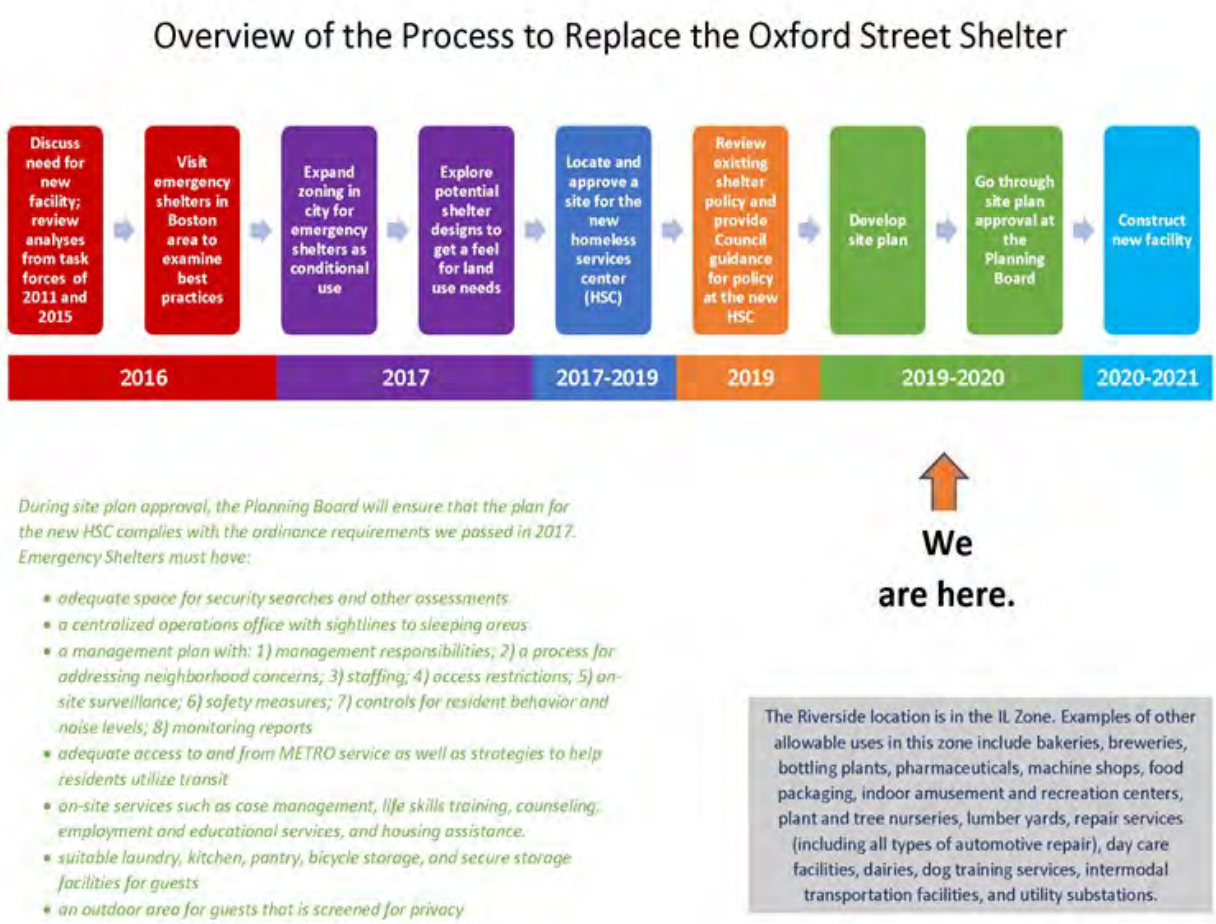


Exhibit 2: Increased Services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation:
  - Metro Route 2
  - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Mail services
- Meals
- On-site health care clinic:
  - Primary Medical care
  - Infectious Disease Services
  - Mental health care
  - Substance use treatment
  - Dentist services
- Peer services
  - Peer support groups

Exhibit 3: Service Providers Planning to Offer Services or Outreach On-Site6

- Amistad
- Catholic Charities Maine
  - Refugee and Immigration Services (RIS)
- City of Portland
  - Social Services
    - General Assistance
    - Helping Individuals Regain Employment (HIRE)
  - The Public Health Division
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
  - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
  - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[6] This list appears in alphanumeric order.

Exhibit 4: Staff Training and Professional Development[7]

- **Bloodborne Pathogens Training**
  OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure

  Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting HIV, Hepatitis C, or other bloodborne diseases

- **Cardiac Science: AED**
  The Automated External Defibrillator (AED) training teaches basic AED rescue skills and correct defibrillation procedures.

- **Customer Service Training**
  Through this customized training, you will have the opportunity to explore the City's vision, goals, and values and how they relate to a culture of excellent customer service, learn about our new customer service vision, renew your commitment to customer service, learn best practices, reinforce the structures already in place that support great customer service, and identify the things you need to improve customer service.

- **Diversity and Inclusion Workshop**
  The City of Portland is committed to an inclusive workplace in which differences are respected and valued. Portland's demographics are rapidly changing and, by extension, so are our employee, visitor, and customer populations. During this interactive, two-hour workshop, participants will increase their awareness of personal biases - both explicit and implicit - and how they impact the way in which we navigate the world; explore practical, proactive strategies for responding to acts of bias and prejudice; and examine strategies to promote respect for diversity, equity and inclusion within the City.

  https://implicit.harvard.edu/implicit/takeatest.html

  Implicit Association Tests are online tests designed to explore our hidden or implicit biases, aimed to detect the strength of a person's automatic associations between concepts(e.g. women, homosexuals) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). You will be asked to sort pictures and words into groups as fast as you can. IATs evaluate automatic associations on many different topics such as race, religion, gender, sexual orientation, and weight

- **Emergency Action Plan Training**
  Helps train employees on what to do in an emergency whether it's a fire, flood or an active shooter. The City has a predetermined emergency action plan to assist employees in knowing what to do in these different emergency situations. The training goes through the plan.

- **Equal Access to Housing Training by GLAD**
  This training covers ways you can create a more welcoming and safer environment for LGBTQ persons. Learn the basic concepts and expectations of the HUD Equal Access to Housing rules and what rights are covered under this rule for individuals regardless of their sexual orientation and in

[7] This list appears in alphanumeric order.

accordance with the individual's gender identity, and in a manner that affords equal access to the individual's family.

- **First Aid and CPR**
  Providing basic first aid, CPR and knowledge to assist guests until EMS arrives.

- **General Assistance Training**
  An overview of the General Assistance Program and the nuances that impact securing housing for individuals experiencing homelessness.

- **Homeless Management Information Systems trainings**
  - Maine Housing Emergency Shelter and Housing Assistance Program
  - Stability Through Employment Program
  - Rent Smart
  - Data & Security

- **Housing Training for Supervisors**
  An ongoing overview of housing assistance, voucher programs, general assistance, community resources and ways to keep conversations in shelter housing and solutions focused.

- **Human Trafficking in Maine: Identification and Response by Preble Street and Maine Coalition Against Sexual Assault**
  Understand the problem of human trafficking. Learn how to identify survivors of human trafficking. Learn how to meet the needs of people who have been trafficked.

- **In Their Shoes Refugee Training**
  This is an interactive simulation provided by Catholic Charities Refugee and Immigration Services. The program is designed to help participants walk in the shoes of a refugee and come to understand the tough decisions faced by someone fleeing for safety.

- **Introduction to Cultural Competency**
  This interactive class explores the various cultures that we inhabit and steps that we can take to become more culturally competent. Cultural competency - the ability to understand, communicate with, and effectively interact with people across various cultures- is a lifelong journey and a skill essential to succeeding in today's culturally-diverse work environment.

- **Language Access Training**
  In this one-hour training, we cover how to identify a Limited English Proficiency individual; the distinctions between interpretation and translation; how to access and best utilize an interpreter; and translation of departments' vital documents. City staff who routinely interact with members of the public are expected to attend.

- **Mental Health First Aid Training Conducted by NAMI Maine**
  Mental Health First Aid is a national best-practice, evidenced-based certification course that is 8 hours in length and leads to a 3 year certification issued by the National Council on Behavioral Health.

- **Military Culture 101**
  A program designed to educate service providers on Military culture and resources Veterans can access.

- **Narcan/Overdose Reversal/Response Training**
  The Public Health Division provides best practice training on recognizing and responding to an overdose, on an as-needed basis, at the request of shelter staff. This training includes: risk factors, prevention strategies, signs and symptoms, and appropriate response, including calling 911 and administering Narcan. In addition to training, the Public Health Division provides Narcan at no cost to the Shelter.

- **National Alliance to End Homelessness Conference & Capitol Hill Day**
  The 2019 National Conference on Ending Homelessness and Capitol Hill Day was the nation's largest convening of service providers, leaders, advocates, and consumers working to end homelessness in the United States. The July conference featured dedicated tracks focused on families and youth experiencing homelessness, updated content on chronic homelessness, veterans, single adults, and other populations. Capitol Hill Day offered an opportunity to speak with members of Congress and their staff and advocate directly for the resources that will benefit homeless families, individuals and youth in your districts.[8]

- **New Employee Orientation**
  For all newly hired employees, a New Employee Safety Orientation online training is required to be completed by new hires through our Maine Municipal Association website, NEOgov. This training covers the following safety issues: Accidents and Emergencies, Fire Safety, Preventing Slips, Trips and Falls, Back Safety, Ergonomics for the Office, Personal Protective Equipment, Hazard Communication, Bloodborne Pathogens, Defensive Driving and Equipment Safety.
  In addition, the following City policies are reviewed with new hires within the first 4-6 weeks of their employment: Equal Employment Opportunity and Nondiscrimination Policy, Policy against Harassment, Workplace Conduct Policy, Drug Free Workplace Policy, Work Related Injury Management, Technology Use Policy, and our Communication and Social Media Policy. New hires are provided an overview of policies via a PowerPoint presentation either in person or at the employee's discretion (new protocol during response to COVID pandemic).

- **New Per Diem Training**
  Conducted with all new employees, this training is an overview that covers a broad range of topics including customer service, review of shelter policies and safety, emergency response (how to call for assistance in an emergency, how to communicate to dispatch, use of your two way radio), overdose reversal and use of naloxone, scenario training (which can include how to de-escalate a client in distress, use of progressive discipline, etc.).

- **Rapid Resolution Housing Training**
  Rapid resolution is a client-centered, problem-solving approach designed to meet the housing stability needs of most persons seeking homeless assistance. Client-centered—with a focus on the client's agency in resolving his or her own housing crisis; Flexible–all available housing options are creatively explored through a problem solving conversation; and Immediate–providers recognize a critical window of opportunity to act swiftly to resolve the housing crisis.

- **Reasonable Suspicion for Supervisors**

[8] "Conferences" *National Alliance to End Homelessness*
https://endhomelessness.org/events/conferences/

This training is to assist when supervisors have evidence or reasonable cause to suspect an employee of drug use. This is needed for the supervisor to know how to follow proper protocols and documentation.

- **Serious Accident Reporting**
  This training defines “serious physical injuries” and the steps to take when reporting to the Maine Department of Labor is necessary as outlined in the City policy “City of Portland Mandatory Reporting Requirements for Employee On-the-Job Death

  or Serious Injury Standard Operating Procedure.”
- **Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health**
  Trauma-informed care recognizes the physical, mental, behavioral, social and emotional impacts of the experience. This training covers core principles and explains Adverse childhood experiences (ACEs) which are stressful or traumatic experiences that happen during the first 18 years of life.

- **Understanding and Supporting LGBTQ Individuals**
  Provides attendees the opportunity to learn more about what it means to be part of the LGBTQ community with special attention given to understanding what it means to be transgender, nonbinary, and gender non-conforming. The presentation will address ways in which City of Portland staff can be more inclusive in their day-to-day work by using inclusive language and terminology, navigating names and pronouns, processing forms and documents, and implementing smart practices to use to make your workspace more inclusive of everyone.

- **Verbal Judo**
  Provides staff with de-escalation techniques through verbal communication to avoid further conflict with individuals including redirection strategies, ultimately decreasing resistance. The goal of the course is to enhance professionalism, decrease community complaints, decrease liability, lessen stress and increase morale for guests employees.

- **Violence Against Women Act training by Through These Doors**
  Provides an overview of the Maine Coalition to End Domestic Violence, the individual resource centers serving Maine and the services offered, presents *Violence Against Women Act overview: “What is VAWA? Who is protected? What programs are impacted?”* and reviews housing protections for survivors and the responsibilities for housing providers.

- **Workers Compensation for Supervisors**
  Explains the procedure for referral to partner urgent care providers and reporting requirements when staff are injured while performing their duties.

Exhibit 5: Transportation Demand Management Plan

Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street
Portland, Maine
August 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[1]
- Sight lines in each direction at driveway exceed 500 feet[2]
- Driveway separation – 176 feet3

[1] MDOT AADT information – Riverside St N/O Warren Avenue

[2] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.

[3] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.

- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 to 16892) yields 14 crashes and Critical Rate Factor of 0.784. Riverside Street at the site driveway is not a High Accident Location.
- Nearby Peak hour traffic volumes are summarized as follows:[5]

TABLE 1 Trip Generation				
Site	**Traffic Count AM Peak Hour (6:30 – 7:30 am)**	**Traffic Count PM Peak hour (3:45 – 4:45 pm)**	**ITE[6] AM Peak Trips**	**ITE PM Peak Trips**
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1229**	**1652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 5' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;

[4] From MDOT for period 01/01/2018 to 12/31/2020

[5] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)

[6] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals.

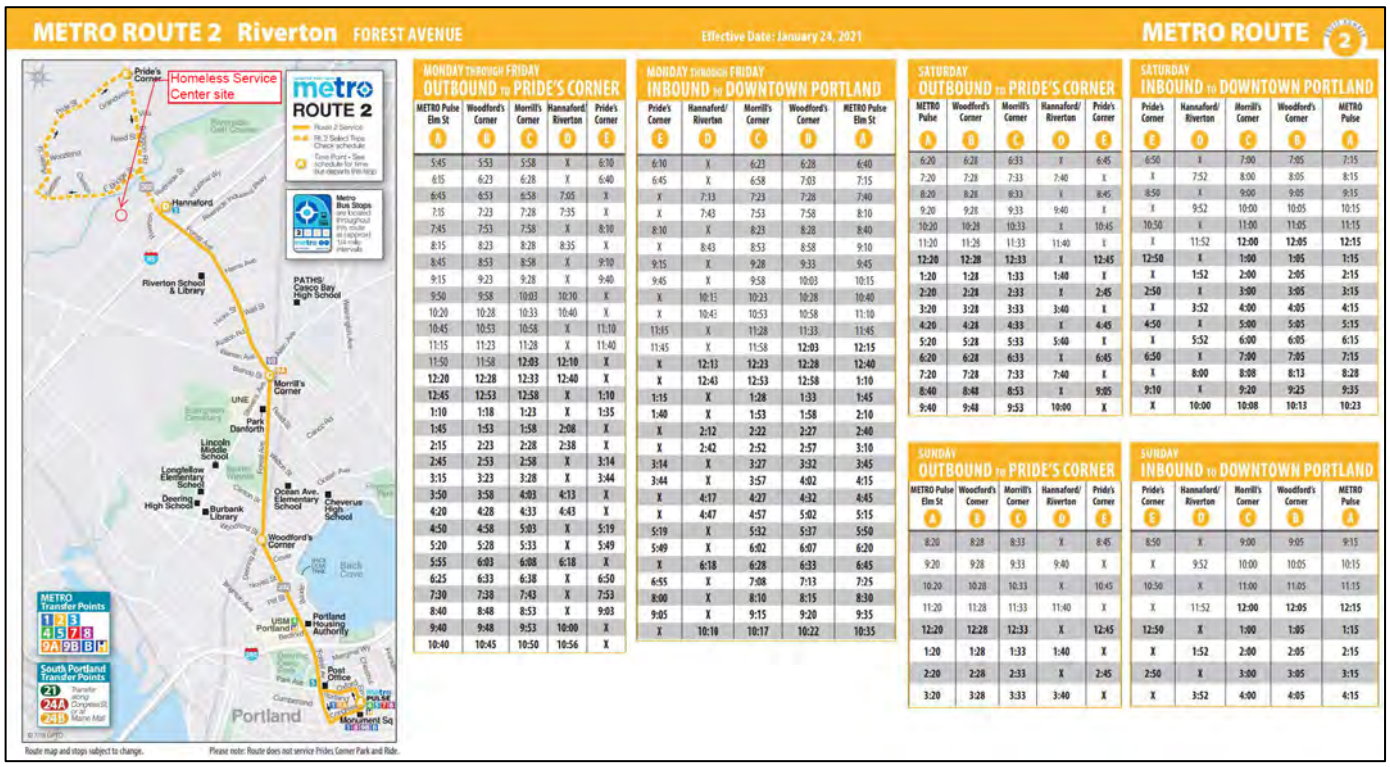


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

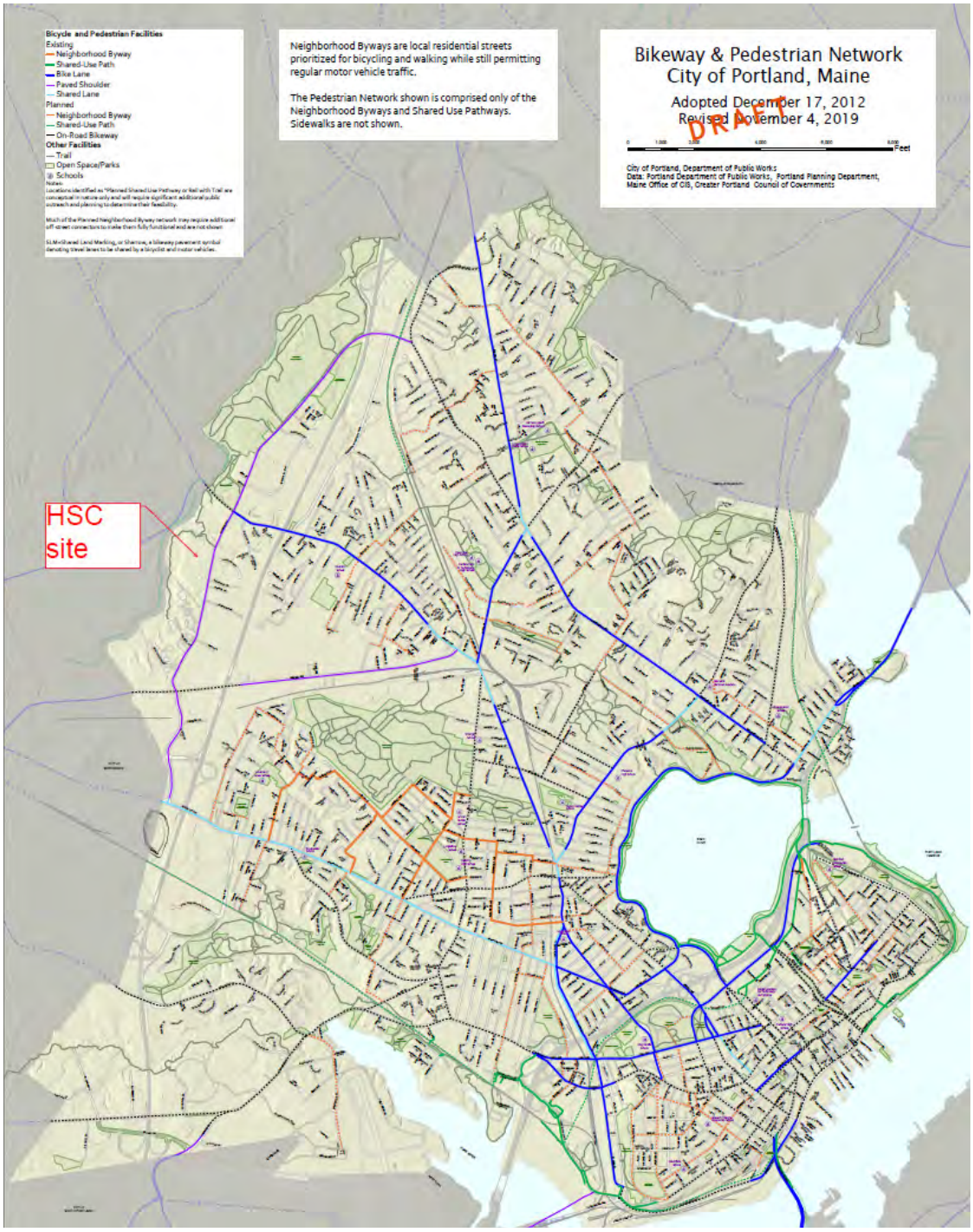


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hr staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS

vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN			
Agency/Position	**Number of Anticipated Vehicles**	**Time-in**	**Time-out**
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.3 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Wayfinding signage will be provided at bus stops along Forest Avenue to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; and
- Implement a ride share registry to match employees interested in ride share.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site.

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

Exhibit 6: Resident Contract

GUEST CONTRACT

The Homeless Services Center is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our facility. Any violations of our safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the building or on the premises is strictly prohibited and could be grounds for restriction from access.
- **Weapons of any kind are not allowed in the building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into the building or waiting areas. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access.**
- **Use of inappropriate speech can result in restriction of access. The City has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The City has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction to access.**
- Sexual activity of any kind is not permitted in the facility or on the grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the facility and on the grounds. This includes wearing shoes while moving around the facility to protect from injury.
- Out of respect for others, cell phones must be turned off or silenced after 8pm in the dorms. Guest phones are available for use. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**
- Electronic devices that do not emit light, are used with headphones and do not disturb other shelter guests may be permitted at the discretion of the supervisor on duty.
- The lights out in the dorms will be 8:30pm.
- Good personal hygiene is a priority. Showers are available with 24 hour access, personal hygiene items are available upon request from staff at the front desk.
- Guest laundry services are available, please see staff for any assistance needed.
- Clean blankets, towels and other linens will be provided.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- Lockers are available on-site. Please see a staff member to sign up. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- The City is not responsible for lost and stolen belongings. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time, please notify staff and we will assist you in contacting the appropriate resource.
- Service Center ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests are expected to attend housing orientation the day following their intake to the service center for important referrals to services. If you have questions or concerns, please ask a supervisor.
- Please respect our neighbors and neighborhood at all times.

Agreements

- *I hereby accept shelter at the City of Portland Social Services Division Homeless Services Center and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.*
- *I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.*
- *I authorize the Social Services Division Homeless Service Center to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.*
- *I understand that Service Center Staff and/or management may restrict my access to the facility and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff and relating to staff at the Service Center.*

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 7: Reasonable Rules

HOMELESS SERVICES CENTER POLICY – REASONABLE RULES

The **Homeless Services Center (HSC)** is a City run facility for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in the City run facility. In addition, the City reserves the right to refuse admission to the HSC to any individual whose presence is determined by the City to pose a danger to other individuals residing in the HSC or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in the HSC facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to the facilities or property or neighborhood
- Smoking or vaping is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 8: Neighborhood Engagement Strategy

Homeless Services Center
Neighborhood Engagement Strategy

Staff of the **Homeless Services Center** are committed to maintaining a positive relationship with our surrounding neighbors through engagement and collaboration.

Staff build and maintain good relationships with both clients and neighbors and can assist in neighborhood issues as they arise. We work to ensure client behavior expectations are clear through regular Service Center meetings with clients. A recurring topic at these meetings will include having a positive impact on our neighboring community.

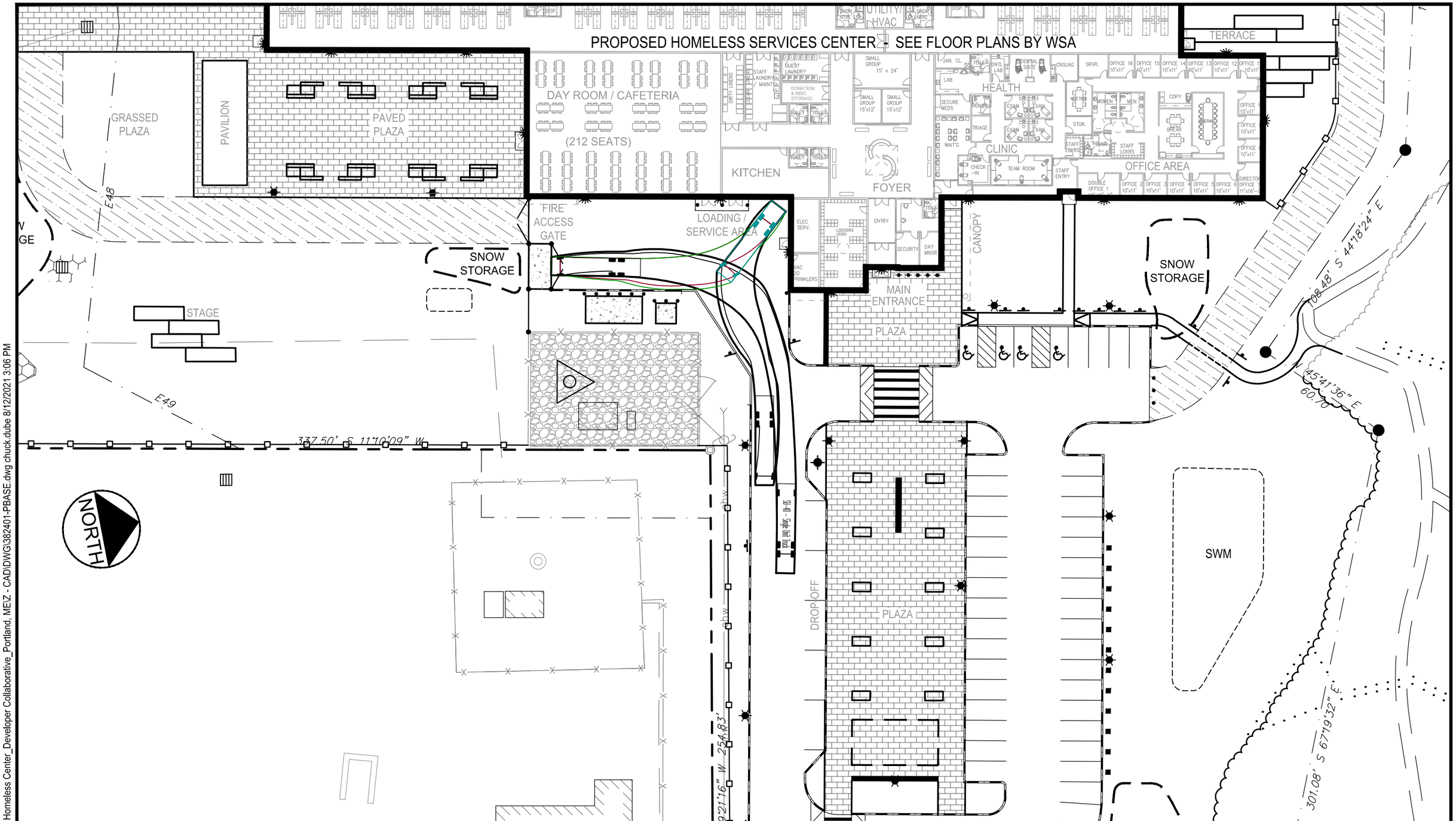
The HSC runs a 24-hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving guests along from a neighbor's front steps, etc. and can decrease police calls for service.

Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

The HSC offers ample locker storage to allow clients a place to leave their belongings while going on housing showings, job interviews, etc.

A representative of the HSC will attend 75% of the monthly Riverton Community Association meetings.

ATTACHMENT B



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GORRILL PALMER
www.gorrillpalmer.com
207.772.2515

DRAWN:	CDD	DATE:	AUG. 11, 2021
DESIGNED:	SRB	SCALE:	1" = 40'
CHECKED:	SRB	JOB NO.	3824.01
FILE NAME:	382401-XBASE		

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET, PORTLAND, MAINE

GARBAGE TRUCK ACCESS / TURNING MOVEMENTS

FIGURE
1

EASEMENT

PROPOSED SUBURBAN PROPANE LOT 4–1

STORAGE 4,000 SF

OFFICE 7,300 SF

GARAGE 1,100 SF

OFFICE 1,100 SF

RAISED GARDENS / SOCIAL SPACES

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION / OUTDOOR SEATING

PAVEMENT / FLEX SPACE

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 80 Beds

UTILITY / HVAC

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH CLINIC

OFFICE AREA

SECURE ACCESS GATE

LOADING / SERVICE AREA

CANOPY

MAIN ENTRANCE

PLAZA

PLAZA

DROP-OFF

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8" REBAR, BENT

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

#1 PROPOSED SIDEWALK EASEMENT

PROPOSED LOT 4–1 PROPOSED 60' WIDE RIGHT-OF-WAY

60'

EXISTING SIDEWALK EASEMENT TO CITY OF PORTLAND

N 22°18'27" W 23.08'

S 78°39'51" E 5.33'

N 78°49'51" W 6.98'

N 47°34'01" E 7.23'

N 11°10'09" W 19.45'

N 11°10'09" W 7.23'

RIVERSIDE STREET

PROPOSED SIDEWALK EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

1 inch = 50 ft.

ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1–1 30"x 30" [A]	R7–8 12"x 18" [B]	R7–8 12"x 18" [C]
R8–3a 24"x 30" [D]	R5–11 30"x 24" [E]	– – [F]

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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ATTACHMENT C

Winton Scott Architects

City of Portland Homeless Services Center
Response to Design Review Comments received from Planning staff on 7/7/21
& Planning Board Workshop #1

8/9/21

Design Team Response:

The design review comments provided by city planning staff focus on the "Two-Family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards" (Section (d) of the Design Manual. Additional design comments were provided at the Planning Board Workshop.

Standard 1- Exterior Design

Staff comments noted that the building as designed "includes variation in the roofline and a mix of fenestration, materials, awnings, canopies to provide variation and visual interest". Additional information on proposed materials was requested and it was suggested that windows be added to the front facade of the locker room adjacent to the main entrance.

Planning Board design comments included:

-Building could be more inviting
-Building looks too institutional-like a school
-What are plans for roof top equipment?

Response:

Amended drawings were presented at the workshop that provided material selections and three windows were added to the front locker room facade. After consideration of comments received in the workshop, the exterior design and materials selections have been further refined, and new, more detailed renderings and elevations have been developed.

The red brick proposed at the office wing and the vertical metal siding at the cafeteria have been replaced with a deep warm-toned metal plank panel system with horizontal orientation and staggered joints. The red brick was seen as contributing to the institutional character of the building and the new siding selection is seen as more contemporary and visually interesting.

There is also a more logical application of materials with the front more public wing being composed of one material and the rear, taller dormitory wing being composed with two types of metal siding. The wings are then punctuated by the main entrance and associated gathering space with its higher sloped roof and gray brick cladding.

As noted in staff comments, the design includes a wide variety of fenestration sizes and types to provide visual interest and clues to the functions within. The dormitories and office areas utilize

smaller vertically oriented windows that have a residential scale and the upper portion of the dormitories include large clerestory with large east facing Kalwal translucent panels to bring morning daylight into the sleeping areas. Clerestory windows and a skylight also punctuate the main gathering space, flooding the space with natural light.

Another design refinement has been to add a covered porch element off of the cafeteria/dayroom. This is seen as a transitional space between the interior and the exterior recreational spaces offering a place to sit and gather outside that provides shelter from southerly sun and rain.

Regarding Planning Board comments about roof top equipment. New renderings and a roof plan have been provided showing a proposed area for rooftop HVAC equipment at the center of the building over the bathrooms that provides 5' high screening of metal siding that matches the siding at the upper portions of the building.

Standard 2- Relationship to the Street

Staff comments indicate that this standard has been met.

Standard 3- Open Spaces

Staff comments requested consideration of more deliberate accommodation of resident circulation to outdoor spaces such as the healing garden. It was also noted that landscape plans do not show what is fenced vs. open or specific designs of each landscape amenity.

Response:

Additional entrances have been added at the men's and women's dormitories that are articulated with projecting enclosures that provide direct access to both the healing garden and the main garden space directly adjacent to the day room.

Additional landscape drawings have been developed showing extent of proposed fencing, fencing details, and more detail on the specific design of the garden spaces.

Standard 4- Windows and Storage

Staff comments under standard 1 have indicated that the building design successfully incorporates extensive and varied fenestration bringing ample natural light into all of the building's interior spaces.

Staff requested additional information on storage for residents.

The facility includes a large locker room at the front entrance that will be secured and monitored providing each resident with sufficient locker space for back packs and small personal items. A small amount of personal storage and charging stations for phones will be provided in the sleeping areas. In addition, covered bike storage will be provided.

Standard 5 - Screening of Parking

Staff comments indicate that this standard has been met.

Standard 6 - Lodging House Conversion

Staff comments indicate that this standard is not applicable to this project.

Miscellaneous Design Comments from Planning Board Workshop #1

In addition to design comments focused on the applicable design standards, there were some additional comments relating to design that the design team would like to respond to:

- Design Parameters for COVID 19:

The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.

-All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. We have 7' to 8' distance typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to affor some privacy and to provide a physical barrier between guests to further protect against COVID transmission.

-CDC space recommendations equate to 113 s.f. of floor area be allocated per person in the sleeping areas. We are showing a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

-CDC recommendations include maintaining 6' distances between guests in eating areas as well. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

-CDC also provides guidance for HVAC systems to minimize transmission that include:

- Maximization of outside air intake
- Use of HEPA level filters that are changed out at regular intervals
- Supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems
- Humidity control systems

We will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

- Re-use Options for the Building:

The ultimate goal of providing services for those without shelter is to become so successful at creating housing solutions for all that the shelter is no longer needed. The Planning Board asked if the building's design would allow for re-use for a different purpose in the future.

The proposed building is one story with high ceilinged, open spaces, modern office and meeting space, and plentiful natural light. In addition, it is planned as a pre-engineered structure that will utilize a framing system with longer spans that minimizes columns. All of these features make for a very flexible building that could easily accommodate a variety of uses such as:

- Community Center
- Educational or Vocational Training Center
- City central storage or operations facility for a variety of departments
- Call center or other office use with large open office area needs
- Day care facility
- Emergency Storm Shelter

Front Perspective

WSA
Winton Scott Architects
5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Entrance Plaza

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Cafeteria / Dayroom

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

East Facade

South Facade

North Facade

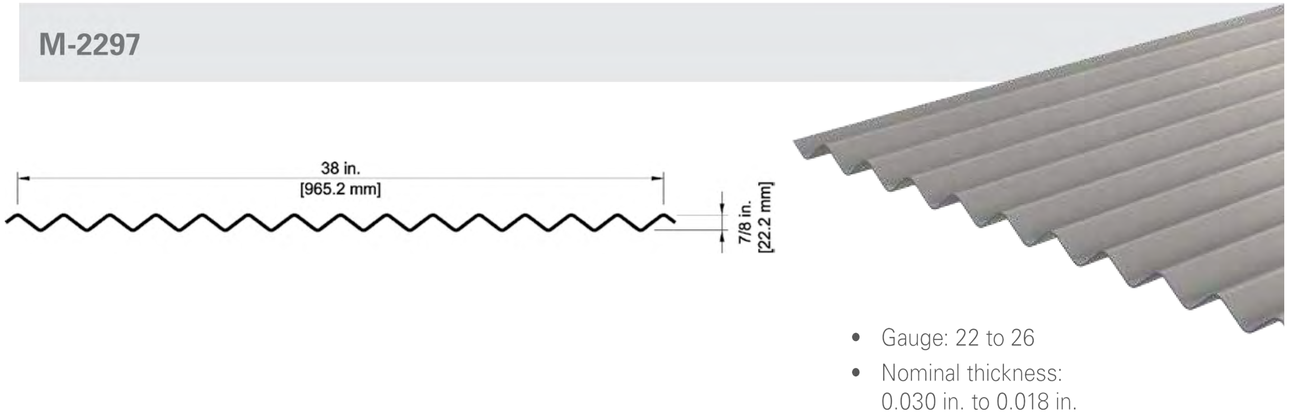
West Facade

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

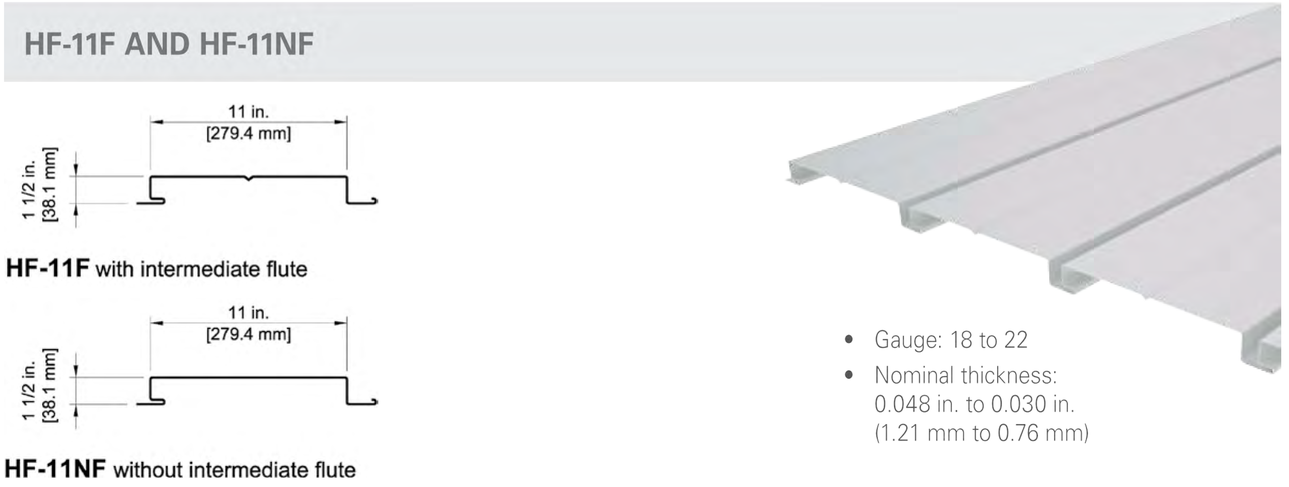
BRICK - Front Entrance Area

ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



- Gauge: 22 to 26
- Nominal thickness: 0.030 in. to 0.018 in.

HORIZONTAL METAL SIDING - Upper portion of Dormitories and Walls at Central Gathering Space Sloped Roof. (Medium Gray)



- Gauge: 18 to 22
- Nominal thickness: 0.048 in. to 0.030 in. (1.21 mm to 0.76 mm)

VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)

WSA
Winton Scott Architects
5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

406'-0"

69'-0"

64'-4"

GENDER NEUTRAL SLEEPING SPACE

GENDER NEUTRAL SLEEPING SPACE

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 60 Beds

STAFF

TOILET

TOILET

LINEN DISP.

MEN

WOMEN

GNDR NTRL

UTILITY/HVAC

GNDR NTRL

STAFF

TOILET

LINEN DISP.

DAY ROOM / CAFETERIA (212 SEATS)

DIRTY LINENS

CLEAN LINENS

STAFF LAUNDRY / MAINT

GUEST LAUNDRY

DONATION & MISC STORAGE

TOILET

TOILET

SMALL GROUP 15' x 24'

SMALL GROUP 15'x12'

SMALL GROUP 15'x12'

JAN. CL.

TOILET

DNTL LAB

DENTAL SUITE

CNSLNG

SRVR.

LAB

SECURE MEDS

TOILET

EXAM 1

EXAM 4

TRIAGE

EXAM 2

EXAM 3

WAIT'G

HEALTH CLINIC

CHECK -IN

TEAM ROOM

STAFF ENTRY

MEETING

STOR.

STAFF LCKRS.

SHWR

STAFF LCKRS

WOMEN

MEN

COPY

BREAK

MEETING

OFFICE AREA

OFFICE 16 10'x11'

OFFICE 15 10'x11'

OFFICE 14 10'x11'

OFFICE 13 10'x11'

OFFICE 12 10'x11'

OFFICE 11 10'x11'

OFFICE 10 10'x11'

OFFICE 9 10'x11'

OFFICE 8 10'x11'

DIRECTOR OFFICE 7 11'x16'-0"

DOUBLE OFFICE 1 10'x16'-6"

OFFICE 2 10'x11'

OFFICE 3 10'x11'

OFFICE 4 10'x11'

OFFICE 5 10'x11'

OFFICE 6 10'x11'

KITCHEN 47' x 21'

TOILET

TOILET

FOYER

LOADING/ SERVICE AREA

ELEC SERV.

HVAC H2O SPRINKLERS

LOCKERS (220)

ENTRY

SECURITY

DAY MNGR

TOILET

116'-10 1/2"

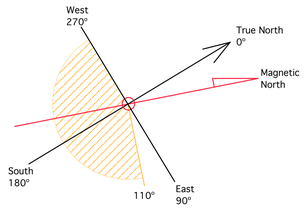
68'-6"

141'-10 1/2"

FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



Winton Scott Architects

5 milk street, portland, maine 04101
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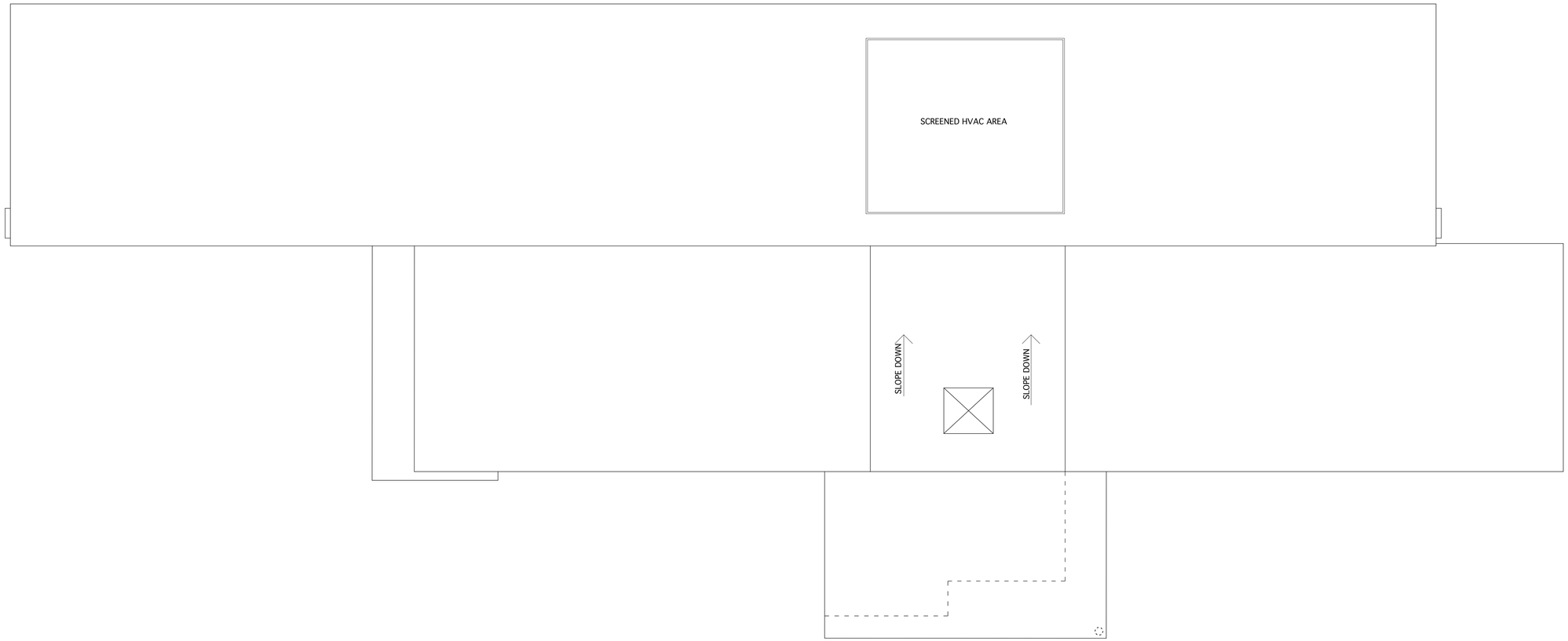

ROOF PLAN

SCALE: 1/16" = 1'-0"

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Main Gathering Space

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

ATTACHMENT D

STORMWATER MANAGEMENT REPORT
(BASIC STANDARDS AND GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021
REVISED AUGUST 2021

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Attachments

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed Homeless Service Center on an undeveloped 28.92-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

- Total Area of Site: Lot 4 = 28.92 acres (305,505 sf)
- Total Site Area to be Disturbed: Approx. 5.8 acres
- Total Developed Area After Construction: 5.35 acres
- Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
- Total Proposed Impervious Area: 138,711 SF (3.18 acres)
- Total Impervious Area After Construction: 145,430 SF (3.34 acres)

The proposed stormwater quality treatment approach utilizes Bioretention Filters, Grassed Underdrained Soil Filters, a Roof Line Drip Edge Filter and a Focalpoint® Bio-filtration system which are all listed in the Maine Best Management Practices (BMPs) manual as acceptable practices to meet the stormwater quality standards required under the general standards. The project intends to provide water quality treatment through these four BMP's and then discharge stormwater to either an existing onsite pipe drainage system or to the well-vegetated northerly fill slopes via sheet flow. Ultimately, the Presumpscot River is the receiving water, just downhill of the site.

The purpose of this analysis and report is to document what measures will be implemented to provide stormwater management for the project to satisfy the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations. Due to the site's proximate location to the Presumpscot River, **the applicant is requesting a waiver of the Flooding Standards as has been previously granted for projects in this area of Portland**. Flood controls are not necessarily due to the location of the development at the low end of the overall Presumpscot River watershed, thus a primary goal is to allow treated runoff to discharge from the site in advance of the overall peak river stage, which in large river watersheds occurs later or after a peak rainfall event. Water quality measures are documented and presented in this analysis.

Erosion and Sedimentation Controls (Basic Standards) will be employed during the construction of this project and are summarized in the Erosion and Sedimentation Control Plans provided on sheets C-5.0, C-8.5, and C-8.6.

2.0 EXISTING SITE CONDITIONS

The existing 28.92±-acre site is identified by the City of Portland Assessor's Office on Tax Map 323/Lot A-3, A-5, and A-10. The lot is identified as Lot 4 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.The site is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- A portion of Lot 4 is held under a conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site. An unnamed tributary flows from east to west on the north side of the site, over to the river.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

The site plans include a base topographic survey prepared by Sebago Technics several years ago. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the development area. The far west side of the site closest to the river is at elevation 30'+/-. The river's flood plain is at elevation 35' per the Subdivision plan.

The site's runoff primarily drains downslope directly to the Presumpscot River via overland flow. The southerly portion of the site contains several catch basins which collect stormwater runoff generated onsite as well as convey runoff generated from the Lucas Tree property and Suburban Propane property. This closed system outfalls at the toe of the fill slope to the west. There are no other apparent drainage systems on site, although a closed storm drainage system within Riverside Street. This system is part of several drainage easements benefitting the lots within the subdivision.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to this fact, **the Applicant is requesting a waiver of the Flooding Standard.** As discussed below, the site's current conditions are characterized by filled land that has naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs, and duff cover. Slopes associated with the manmade fill limits vary from 6 to 33% down to a flatter zone along the river.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The development site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Center site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

A 51,690 SF single story service center facility will be constructed, and site improvements will include 56 parking spaces, a 24' wide primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a 20' perimeter drive around the building for emergency and maintenance access.

Typical surface material types utilized on site include:

- Bituminous Pavement – main drive, sidewalk, and parking areas
- Reinforced Turf – perimeter fire lane
- Modular Block Pervious Pavers – front plaza/entrance and exterior social spaces
- All other areas will be treated with loam and seed and other various plantings in accordance with the project landscape plans

The project will be graded to generally follow the existing contours of the site; high in the east and lower in the west. The proposed homeless shelter building will be located along the westerly (rear) property line. The driveway will span east to west along the shared boundary with the Lucas Tree property with parking in front of the new building to the north of the roadway. The roadway grade will trend down toward the proposed building. An emergency access drive spans around the building that will follow down around the rear of the building. The lower portions of the site will remain as the westerly and northerly boundary lines.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions to comply with the MaineDEP VRAP program. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003 http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm*
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the Flooding Standards is requested, no formal hydrologic analysis using HydroCAD has been performed for Pre- and Post-development conditions. However, the water quality BMP's have been modeled using HydroCAD to demonstrate stage-storage and capacity/routing.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

That detention will not be required to reduce the peak flow rate or meet the Flooding Standards. **A waiver of the Flooding Standards is requested on the basis that Detention is not required to offset peak discharge since the overall watershed peak occurs substantially later than the site's. This so-called "beat the peak" approach has been considered in the past by the city and similar waivers for nearby projects, including most recently Suburban Propane, have been granted.**

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MaineDEP (revised October 2010).
- Designing water quality measures including bioretention filters, grassed underdrained soil filters, roof line drip edge filters, proprietary bio-filtration systems and level spreaders to provide long-term removal of non-point contaminants.

- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual.

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

To meet the General Standards, our office reviewed the MaineDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including:

- Grassed underdrained soil filters,
- Bio-retention filters,
- Vegetated buffers,
- Proprietary devices,
- And infiltration trenches

Following this review and incorporating knowledge of the site and the goals of the project, the stormwater management plan for the project has been designed with multiple BMP's located around the site's perimeter. This allows for proper treatment of the site while minimizing the need for storm drain piping and appurtenances. Although the Applicant is requesting a waiver of the Flooding Standard, it is understood that runoff must be dispersed along the fill slopes to minimize erosion. The proposed scheme will separate the stormwater runoff generated from the site and disperse discharge along the northerly fill slope. In total, there will be:

- Five (5) bioretention filters,
- one (1) grassed underdrained soil filter,
- one (1) Focalpoint® Bio-filtration system, and
- one (1) roof line drip edge filter employed as part of the stormwater management plan.

Level spreaders will be utilized at various locations to disperse discharge from the BMP's. Pretreatment will be utilized on site in the form of deep sump catch basins and rip rap inlets for BMP's to capture larger sediment and particles in the runoff.

In addition to these BMP's, the site design utilizes several pervious surface material treatments which decrease the overall impact of development. The 20' wide perimeter fire lane will be constructed using a reinforced turf material which is generally comprised of a prefabricated plastic grid that can be filled with loam and seed and allowed to grow. This will provide additional lawn area while also allowing for proper exterior access for emergency personnel and staff. The front plaza, main entrance, and southerly common space will utilize modular block pervious pavers which will be broken up with various seating areas, raised planter beds, and tree wells. Both of these surface materials will allow for a certain amount of infiltration of runoff greater than typical bituminous pavement which offers essentially no runoff. Although these areas are not equipped with a subbase material designed for filtration to Maine DEP BMP Technical Manual, it is understood that this approach will provide for a

certain amount of treatment and reduce overall runoff generated on site. This technique replaces approximately 50,985 SF area that would otherwise be constructed with impervious surface.

The following sections summarize the stormwater BMP's that are being employed to meet the water quality standards for the proposed development:

1. Bio-Retention Filter:

   Bio-retention filters will be installed along the westerly (rear) of the site. Five (5) separate filters will be used primarily to treat runoff from the perimeter fire lane that will consist of reinforced turf and adjacent garden/exterior common space. Each basin will receive runoff through direct absorption and primarily shallow concentrated flow via rip rap inlets. Runoff will enter the basin and flow through a filter section before being collected in underdrain pipes and directed to individual outfalls on the westerly fill slope. The bio-retention filter section was designed in accordance with Section 7.2 of the BMPs Technical Design Manual dated May 2016.

   The basins will be equipped with gate valves or equal control mechanism, that will be adjusted in order to control and discharge the water quality volume within 24-48 hours. Overflow structures in the form of 6" diameter standpipes with domed grates will be placed 6" above the filter bed in each basin to divert excess amounts of runoff to the underdrain pipes that discharge out to rip rap aprons or level lip spreaders on the northerly and westerly fill slopes.

   In total, the bio-retention filters will provide treatment for 11,998 SF of impervious area and 36,215 SF of developed area. This accounts for 8.65% of the total impervious area and 15.55% of the total developed area. Design calculations for the bio-retention filters are included in Attachment A. Please see Attachment B for the Stage-storage calculations.

2. Grassed Underdrained Soil Filter:

   One Grassed Underdrained Soil Filter (GUSF) will be employed to the north of the site to capture and treat runoff generated from the main entrance, main access drive, parking area, front plaza, and lawn areas. Runoff will primarily be directed via pipe flow to the basin before flowing through an 18" filter media and collected and conveyed in an underdrain system that will discharge the flow to the perimeter of the site. The GUSF section was designed in accordance with Section 7.1 of the BMPs Technical Design Manual dated May 2016.

   An overflow structure in the form of an outlet control manhole structure with a 2' diameter domed grate will be set 18" above the filter bed in the basin to discharge excess amounts of runoff to the perimeter of the site. The GUSF basin will discharge to a level lip spreader where runoff will be dispersed to sheet flow on the northerly fill slope. The underdrain inlet pipe to the outlet control structures will be installed with a pipe cap with an orifice sized to control the water quality volume and discharge within 24-48 hours.

   In total, the grassed underdrained soil filter will provide treatment for 53,619 SF of impervious area and 76,582 SF of developed area. This accounts for 38.66% of the total impervious area and 32.89% of the total developed area. Please see attached design calculations for the GUSF which are included in Attachment A. The stage-storage and drawdown calculation data is provided in Attachments B and C.

3. Roof Line Drip Edge Filter:

A roof line drip edge filter will be employed on the westerly (rear) side of the building to capture and treat runoff generated from a portion of the roof area. Water will fall directly onto the crushed stone surface, travel down through a reservoir layer, through a filter layer and be captured in underdrain pipes that will outlet to a level lip spreader on the westerly fill slope. The roof line drip edge filter section was designed in accordance with Section 7.5 of the BMPs Technical Design Manual dated May 2016.

In total, the roof line drip edge filter will provide treatment for 31,516 SF of impervious area and 31,516 SF of developed area. This accounts for 22.72% of the total impervious area and 13.53% of the total developed area. The design calculations for the drip edge filter are included in Attachment A.

4. Focalpoint® Bio-filtration System:

A FocalPoint® system[2] will be employed to provide water quality treatment for multiple area including the east half of the proposed building, the westerly garden/exterior common space, the loading dock area, and lawn area. The proprietary system consists of a shallow (6-12") depression filled with 18" of a soil filter media and planted with a variety of grasses and shrubs. Runoff entering the cell is detained temporarily before passing through the filter media. The filter media has a high flow rate (100 in/hr) that allows high amounts of runoff to be handled in a smaller footprint. The stormwater is then controlled below the filter section with a chamber storage system before being released downstream to a treatment row. An underdrain pipe then collects and discharges the stormwater from the system and connects to the existing closed drainage system in the southeast corner of the site. This closed drainage system outlets to the west beyond the toe of the existing fill slope where runoff ultimately enters the river. An overflow standpipe with a beehive grate is set approximately 6" above the filter bed and captures stormwater that cannot be handled in larger storm events.

The FocalPoint® will provide treatment for 37,261 SF of impervious area and 61,519 SF of developed area. This accounts for 26.86% of the total impervious area and 26.42% of the total developed area. Design calculations for the FocalPoint® Bio-filtration system are provided in Attachment D of this Application.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.18 acres of impervious surface. The proposed disturbed area will be about 5.8 acres. The stormwater management plan for the project utilizes four different types of BMP's: grassed underdrained soil filters, bio-retention filters, a proprietary Focalpoint® bio-filtration system and a roof line drip edge filter. By using multiple BMP's, discharge can be separated and divided along the property boundary to avoid erosion that might be experienced with one centralized treatment method. In addition to this non-centralized treatment scheme, runoff will be dispersed at the development boundaries with level spreaders to further dissipate runoff generated on site. The following table demonstrates the treatment percentages achieved for the project:

[2] See https://www.maine.gov/dep/land/stormwater/stormwaterbmps/manufactured-systems/focalpoint-january2017.pdf

Table 1: Portland Homeless Services Center Treatment Summary				
Treatment Method	**Impervious**		**Developed**	
	SF	**Percent**	**SF**	**Percent**
Bio-Retention Filter	11,998	8.65	36,215	15.55
Grassed Underdrain Soil Filter	53,619	38.66	76,582	13.53
Roof Line Drip Edge Filter	31,516	22.72	31,516	32.89
Focalpoint® System	37,261	26.86	61,519	26.42
Total	**134,394**	**96.89**	**205,832**	**88.39**
Required	**-**	**95**	**-**	**80**

As the table presents, the proposed treatment percentages exceed the required levels of 95% impervious area treatment and 80% developed area treatment.

11.0 EROSION AND SEDIMENTATION CONTROL (BASIC STANDARDS)

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are included in the project plan set. Erosion control BMP's, as described in the MaineDEP Erosion and Sediment Control BMP Manual, will be utilized throughout the project. BMP's proposed include but are not limited to:

- Stabilized Construction Entrance
- Siltation fencing/erosion control mix berms
- Inlet/Outlet protection
- Temporary construction stabilization
- Slope stabilization
- Level lip spreaders

Level lip spreaders are crucial to the success of the stormwater management plan as the runoff generated onsite will be dispersed along the existing fill slopes. Level lip spreaders will be employed at all BMP outfalls that discharge to the perimeter fill slopes. In total, five (5) level lip spreaders will be employed as part of the development. The contractor will also be required to employ ESC BMP's for any material stockpiles as well as any areas left denuded for extended periods of time during construction. The ESC plan for the project complies with the requirements detailed in Attachment A of Maine DEP's chapter 500 Rules for Stormwater Management, thus satisfying the Basic Standard.

12.0 OPERATIONS AND MAINTENANCE

The stormwater management facilities will be maintained by the Applicant or their assigns after construction is complete. The general contractor will be responsible for maintenance during construction. The contract documents will require that the contractor designate a person for maintenance of the facilities during construction as required by this application. Long term operation/ maintenance schedules for the facilities are provided in the updated O&M Manual included in Attachment E to this report.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

14.0 CONCLUSION

The Stormwater Management Plan for this project outlines the measures proposed to achieve compliance with the Chapter 500 Stormwater Management standards for water quality treatment. The design includes stormwater quantity controls including storage components within the bio-retention filters, grassed underdrained soil filter, roof drip edge filter, and subsurface chamber system in the Focalpoint® system. The site will discharge and re-disperse stormwater runoff to sheet flow along the north and west fill slopes and ultimately flow to the Presumpscot River, which is major river segment, thus the applicant is seeking a waiver of the flooding standards. Other than the proprietary treatment system, the majority of the runoff generated will ultimately discharge directly onto the north and west fill slopes. The drainage scheme for the project utilizes multiple stormwater filtration basins with multiple discharges around the site, rather than a traditional centralized stormwater basin such as a wet pond. This approach will redisperse stormwater to sheet flow and back to its natural drainage course as it makes its way to the river. A minor amount of development area will direct runoff to the municipal street system and these impacts are considered insignificant.

Based on the proposed design, the runoff from the proposed development will be captured and conveyed in a manner that will not have an adverse impact to the surrounding stormwater systems or the environment.

15.0 ATTACHMENTS

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

ATTACHMENT A
WATER QUALITY CALCULATIONS

Portland Homeless Service Center - Stormwater Management Summary

08.11.2021
Designed By: KAB
Checked By: SRB

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	31516	0	31,516	31,516	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	53619	22,963	76,582	53,619	22,963
103a	0	7,664	7,664	0	0
103b	37261	24,258	61,519	37,261	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

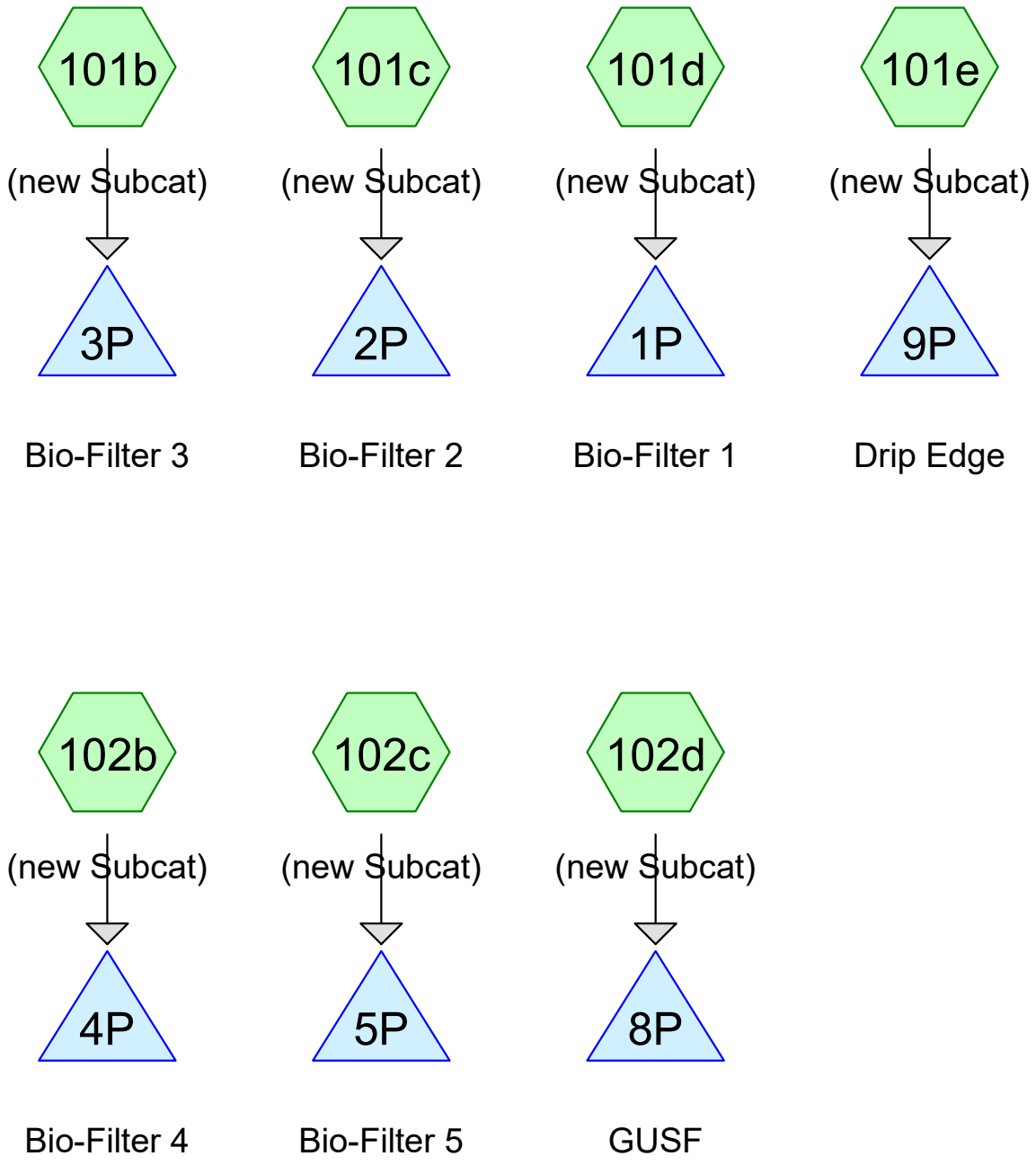
BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,234	5,728	3,140	3,226
101e	Roof Line Drip Edge Filter	2,626	2,910	-	-
101a, 102a, 103a, 104 (untreated)	-	-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

ATTACHMENT B
HYDROCAD STAGE-STORAGE REPORTS



Subcat Reach Pond Link

Routing Diagram for 3824.01_post-dev
Prepared by {enter your company name here}, Printed 8/11/2021
HydroCAD® 10.10-4a s/n 01265 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 101b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af, Depth> 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
281	98	Water Surface, HSG C
4,228	74	>75% Grass cover, Good, HSG C
4,509	75	Weighted Average
4,228		93.77% Pervious Area
281		6.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,669	87	Dirt roads, HSG C
547	98	Water Surface, HSG C
3,227	74	>75% Grass cover, Good, HSG C
7,443	82	Weighted Average
6,896		92.65% Pervious Area
547		7.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af, Depth> 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
427	98	Water Surface, HSG C
4,816	98	Unconnected pavement, HSG C
661	74	>75% Grass cover, Good, HSG C
5,904	95	Weighted Average
661		11.20% Pervious Area
5,243		88.80% Impervious Area
4,816		91.86% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101e: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
27,879	98	Roofs, HSG C
3,637	98	Water Surface, HSG C
31,516	98	Weighted Average
31,516		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
274	98	Water Surface, HSG C
3,532	74	>75% Grass cover, Good, HSG C
3,806	76	Weighted Average
3,532		92.80% Pervious Area
274		7.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
793	98	Water Surface, HSG C
1,191	98	Paved parking, HSG C
12,606	74	>75% Grass cover, Good, HSG C
14,590	77	Weighted Average
12,606		86.40% Pervious Area
1,984		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,226	98	Water Surface, HSG C
22,963	74	>75% Grass cover, Good, HSG C
50,393	98	Paved parking, HSG C
76,582	91	Weighted Average
22,963		29.98% Pervious Area
53,619		70.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 1P: Bio-Filter 1

Inflow Area = 0.136 ac, 88.80% Impervious, Inflow Depth > 5.21" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af
Outflow = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 2%, Lag= 1.3 min
Primary = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.61' @ 12.09 hrs Surf.Area= 598 sf Storage= 528 cf

Plug-Flow detention time= 94.3 min calculated for 0.058 af (99% of inflow)
Center-of-Mass det. time= 90.4 min (853.6 - 763.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.83'	775 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.83	427	0.0	0	0
62.50	427	0.0	0	0
64.00	427	33.0	211	211
64.50	575	100.0	251	462
65.00	678	100.0	313	775

Device	Routing	Invert	Outlet Devices
#1	Primary	61.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.83' / 61.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.72 cfs @ 12.09 hrs HW=64.61' (Free Discharge)
- **1=Culvert** (Passes 0.22 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.03 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.19 cfs @ 1.09 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.50 cfs @ 0.90 fps)

Summary for Pond 2P: Bio-Filter 2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 0.171 ac, 7.35% Impervious, Inflow Depth > 3.80" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af
Outflow = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af, Atten= 39%, Lag= 7.8 min
Primary = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.58' @ 12.20 hrs Surf.Area= 781 sf Storage= 658 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 116.1 min (925.0 - 808.9)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	1,012 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	547	0.0	0	0
60.50	547	0.0	0	0
62.00	547	33.0	271	271
62.50	757	100.0	326	597
63.00	905	100.0	416	1,012

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.45 cfs @ 12.20 hrs HW=62.58' (Free Discharge)
- **1=Culvert** (Passes 0.16 cfs of 1.18 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.04 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.11 cfs @ 0.92 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.75 fps)

Summary for Pond 3P: Bio-Filter 3

Inflow Area = 0.104 ac, 6.23% Impervious, Inflow Depth > 3.11" for 25 Year event
Inflow = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af
Outflow = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af, Atten= 32%, Lag= 8.1 min
Primary = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.55' @ 12.22 hrs Surf.Area= 398 sf Storage= 327 cf

Plug-Flow detention time= 124.4 min calculated for 0.027 af (100% of inflow)
Center-of-Mass det. time= 123.6 min (950.2 - 826.6)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	281	0.0	0	0
60.50	281	0.0	0	0
62.00	281	33.0	139	139
62.50	384	100.0	166	305
63.00	514	100.0	225	530

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.23 cfs @ 12.21 hrs HW=62.55' (Free Discharge)
- **1=Culvert** (Passes 0.08 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.06 cfs @ 0.73 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.15 cfs @ 0.60 fps)

Summary for Pond 4P: Bio-Filter 4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 0.087 ac, 7.20% Impervious, Inflow Depth > 3.21" for 25 Year event
Inflow = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af
Outflow = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af, Atten= 47%, Lag= 11.5 min
Primary = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 65.04' @ 12.27 hrs Surf.Area= 387 sf Storage= 314 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 128.5 min (952.7 - 824.2)

Volume	Invert	Avail.Storage	Storage Description
#1	62.33'	515 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.33	274	0.0	0	0
63.00	274	0.0	0	0
64.50	274	33.0	136	136
65.00	378	100.0	163	299
65.50	489	100.0	217	515

Device	Routing	Invert	Outlet Devices
#1	Primary	62.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.33' / 61.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	62.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	65.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	65.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.15 cfs @ 12.27 hrs HW=65.04' (Free Discharge)
- **1=Culvert** (Passes 0.06 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.62 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.09 cfs @ 0.51 fps)

Summary for Pond 5P: Bio-Filter 5

Inflow Area = 0.335 ac, 13.60% Impervious, Inflow Depth > 3.30" for 25 Year event
Inflow = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af
Outflow = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af, Atten= 16%, Lag= 4.9 min
Primary = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.15' @ 12.16 hrs Surf.Area= 955 sf Storage= 957 cf

Plug-Flow detention time= 116.4 min calculated for 0.089 af (96% of inflow)
Center-of-Mass det. time= 94.1 min (915.8 - 821.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.33'	1,311 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.33	793	0.0	0	0
62.00	793	0.0	0	0
63.50	793	33.0	393	393
64.00	917	100.0	428	820
64.50	1,047	100.0	491	1,311

Device	Routing	Invert	Outlet Devices
#1	Primary	61.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.33' / 60.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.03 cfs @ 12.16 hrs HW=64.14' (Free Discharge)
- **1=Culvert** (Passes 0.32 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.05 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.27 cfs @ 1.22 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.70 cfs @ 1.01 fps)

Summary for Pond 8P: GUSF

Inflow Area = 1.758 ac, 70.02% Impervious, Inflow Depth > 4.76" for 25 Year event
Inflow = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af
Outflow = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af, Atten= 37%, Lag= 5.8 min
Primary = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 63.00' @ 12.17 hrs Surf.Area= 4,876 sf Storage= 8,030 cf

Plug-Flow detention time= 117.2 min calculated for 0.565 af (81% of inflow)
Center-of-Mass det. time= 44.3 min (825.1 - 780.8)

Volume	Invert	Avail.Storage	Storage Description
#1	58.75'	8,051 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.75	3,226	0.0	0	0
61.00	3,226	0.0	0	0
62.50	4,411	100.0	5,728	5,728
63.00	4,880	100.0	2,323	8,051

Device	Routing	Invert	Outlet Devices
#1	Device 4	62.50'	**60.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Device 4	58.67'	**0.8" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	58.75'	**6.0" Round Culvert** L= 7.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.75' / 58.67' S= 0.0114 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#4	Primary	58.57'	**12.0" Round Culvert** L= 18.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.57' / 58.40' S= 0.0094 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#5	Device 3	58.75'	**2.400 in/hr Exfiltration over Surface area**

Primary OutFlow Max=5.91 cfs @ 12.17 hrs HW=62.99' (Free Discharge)
└**4=Culvert** (Inlet Controls 5.91 cfs @ 7.52 fps)
  ├**1=Orifice/Grate** (Passes < 17.44 cfs potential flow)
  └**2=Orifice/Grate** (Passes < 0.03 cfs potential flow)
    └**3=Culvert** (Passes < 1.49 cfs potential flow)
      └**5=Exfiltration** (Passes < 0.27 cfs potential flow)

Summary for Pond 9P: Drip Edge

Inflow Area = 0.724 ac,100.00% Impervious, Inflow Depth > 5.56" for 25 Year event
Inflow = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af
Outflow = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af, Atten= 73%, Lag= 20.3 min
Primary = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 67.40' @ 12.41 hrs Surf.Area= 3,637 sf Storage= 2,761 cf

Plug-Flow detention time= 15.5 min calculated for 0.271 af (81% of inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	63.83'	2,910 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
63.83	3,637	0.0	0	0
64.50	3,637	0.0	0	0
65.50	3,637	0.0	0	0
67.50	3,637	40.0	2,910	2,910

Device	Routing	Invert	Outlet Devices
#1	Primary	63.83'	**6.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.83' / 62.65' S= 0.0118 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=1.13 cfs @ 12.41 hrs HW=67.40' (Free Discharge)
1=Culvert (Barrel Controls 1.13 cfs @ 5.76 fps)

ATTACHMENT C
DRAWDOWN CALCULATIONS

Portland Homeless Services Center
BMP Drawdown Calcs

08.04.2021
Designed By: KAB
Checked By: SRB

Drawdown Calculation - GUSF #1

Orifice Diameter =0.83 in

Elev. (ft)	Depth (ft)	Surface Area (sq.ft)	Ave. End Area (sq.ft)	End Area Depth (ft)	Incremental Volume (cf)	Head, h (ft)	Orifice Flow (cfs)	Drawdown Time (secs)	Drawdown Time (hours)
63.50	1.00	2,040	4411.00	0.50	2205.50	3.17	0.0322	68497.56	19.027
63.00	0.50	1,773	3226.00	0.50	1613.00	2.67	0.0296	54585.39	15.163
62.50	0.00	1,520	0.00	0.00	0.00	2.17	0.0266	0.00	0.000
								TOTAL	***34.190***

Orifice Formula	**$CA\ (2gh)^{1/2}$**	
Orifice Diameter:	**0.83**	inch
A:	0.003757	sq.ft
Filter Thickness:	2.17	feet
g:	32.174	ft/s^2
C:	0.6	Orifice/Grate

ATTACHMENT D
FOCALPOINT® DESIGN WORKSHEET/HYDROCAD REPORT

DESIGN WORKSHEET

FOCALPOINT

MAINE CHAPTER 500 PROJECTS

1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf) See step 2 to determine if minimum size is appropriate.**
   - Tributary impervious area: = 0.86 ac **(A)**
   - Tributary pervious area: = 0.56 ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 189 sf
   - FocalPoint bed area provided: = 200 sf
   - Dimensions of proposed FocalPoint: = 10 ft x 20 ft

2. **A 0.95-in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 400 ft^3
   - Peak ponding depth from 0.95-in 24-hr storm event: = below mulch in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = 1 : 2

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1-yr 24-hr storm event.**
   - 1-yr 24-hr peak flowrate: = 1.82 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (HD singles or taller - 1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 91

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled release of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☐

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer's representative**
   - The design has been reviewed by ACF Environmental ☐
   - Engineer will coordinate installation inspection with ACF Environmental ☐

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within FocalPoint must be a minimum of 174 sf per 1.0 acre of impervious area (26 sf per 0.15 acres). Thickness of the media is to be no less than 1.5 ft (18 in).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:

FOCALPOINT ACCESSORIES:

Pretreatment - Rain Guardian Turret

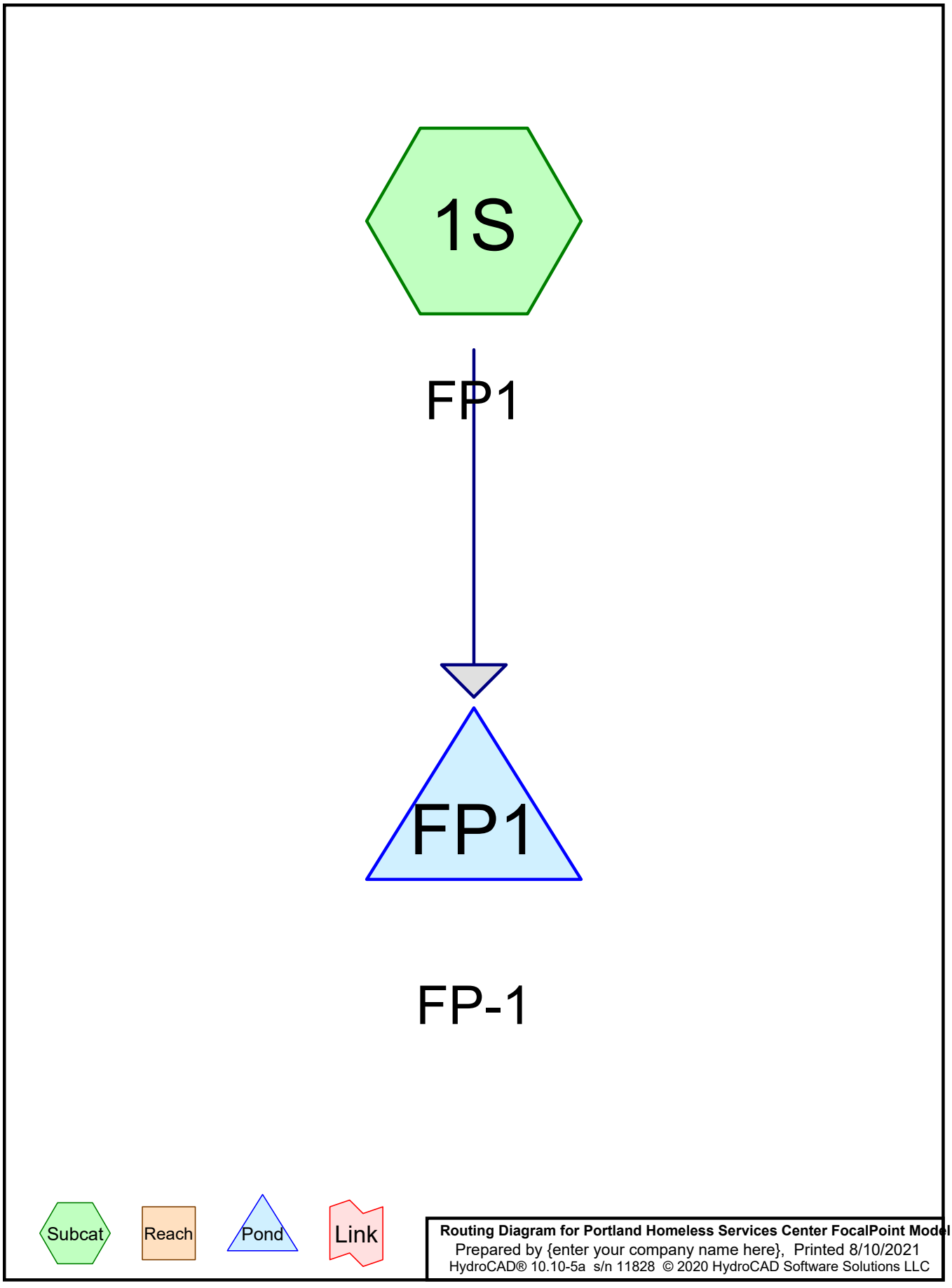
Pretreatment - Rain Guardian Foxhole

Pretreatment - PreTx

Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com


1S
FP1
FP1
FP-1
Subcat
Reach
Pond
Link
Routing Diagram for Portland Homeless Services Center FocalPoint Model
Prepared by {enter your company name here}, Printed 8/10/2021
HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: FP1

Runoff = 0.10 cfs @ 12.15 hrs, Volume= 501 cf, Depth> 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 0.95-in Rainfall=0.95"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 0.10" for 0.95-in event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 501 cf
Outflow = 0.10 cfs @ 12.15 hrs, Volume= 500 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.10 cfs @ 12.15 hrs, Volume= 500 cf
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.77' @ 12.15 hrs Surf.Area= 200 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 499 cf (100% of inflow)
Center-of-Mass det. time= 0.1 min (864.7 - 864.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.15 hrs HW=61.77' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.75' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 1S: FP1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf, Depth> 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-YR Rainfall=2.60"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 1.05" for 1-YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf
Outflow = 1.29 cfs @ 12.20 hrs, Volume= 5,358 cf, Atten= 29%, Lag= 6.0 min
Primary = 0.46 cfs @ 11.90 hrs, Volume= 4,675 cf
Secondary = 0.83 cfs @ 12.20 hrs, Volume= 683 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.62' @ 12.20 hrs Surf.Area= 200 sf Storage= 663 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (809.5 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.46 cfs @ 11.90 hrs HW=62.10' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Secondary OutFlow Max=0.82 cfs @ 12.20 hrs HW=64.62' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.82 cfs @ 1.12 fps)

ATTACHMENT E
OPERATION & MAINTENANCE MANUAL

HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE MANUAL FOR STORMWATER FACILITIES

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

AUGUST 2021

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APPENDICES

Appendix A – Summary Checklist for Inspection and Maintenance

Appendix B – Inspection Logs

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Appendix D – Permits for Project

I. INTRODUCTION

Runoff from developed areas may contain a number of contaminants especially when emanating from rooftops, paved or lawn areas. This runoff can contain a significant amount of non-point contaminants, which can have an adverse impact on the receiving waters. The installation of soil media filters, vegetated buffer strips and other stormwater best management practices can significantly reduce the non-point pollution discharge from the developed area.

The effectiveness of BMP's and other components of the system are dependent on their upkeep and maintenance to assure they meet their design function over an extended period of time. It is critical that the stormwater management facilities are inspected on a regularly scheduled basis, and that maintenance is performed on an as needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that transport the flow to the outlets or treatment measures. Thus, maintenance should be directed to the total system, not just the BMP's.

The purpose of this document is to define in detail the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended on a long-term basis for the City of Portland Homeless Services Center. This Operations and Maintenance Manual is specific to the proposed stormwater measures utilized to execute a successful stormwater management plan. Subsequent sections identify individual maintenance items, give a brief commentary of the function and need of the item, a description of the work required, and a suggested frequency of accomplishment. While the suggested programs and schedules must be adapted to specific projects, the material presented should provide guidance for a successful long-term program.

A. Guidelines Overview

A summary of the individual components of stormwater management facilities for this project has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis, which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The owner/operator should review the design drawings and documents carefully to understand the particular elements of the project.

The end of this section should allow the owner/operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

This report includes the Operation and Maintenance requirements for any potential BMP identified in the Stormwater Management Report for this project.

B. Responsible Party

The responsible party for operation and maintenance of the stormwater and other site infrastructure will be the applicant or their agents or assigns. A copy of an unexecuted Stormwater Drainage System Maintenance Agreement is included in Appendix C.

II. PROJECT OVERVIEW

Key permits issued (or applied for) on the project include:

- City of Portland Site Plan Approval
- MaineDEP Site Location of Development Permit (Delegated Review by City of Portland)
- Maine Construction General Permit Stormwater General Permit

A copy of the permits and Stormwater Management Report should be appended to this manual as Appendix E. The Owner/Operator of the stormwater management system should review these permits for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained Gorrill Palmer for civil engineering for the development project. Gorrill Palmer has prepared the design for the stormwater management facilities and may be contacted at:

Gorrill Palmer
707 Sable Oaks Drive – Suite 30
South Portland, Maine 04106
207.772.2515

The applicable plans and design documents which apply to the project are:

1. Civil Site Plans Prepared by Gorrill Palmer
2. The Erosion Control/Sedimentation Control Plan for the project
3. The Stormwater Management Plan for the project

A copy of these documents should be retained with this manual.

The proposed design includes inlets, stormwater conveyance lines, grassed underdrained soil filters, bio-retention filters and outlet control structures.

The key receiving waters for this project is the Presumpscot River which is under tidal influence.

The manual is intended for general guidance; however, any substituted deviations from the manual should be reviewed with respect to provisions of Appendix D.

III. STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS

The following narratives describe the inspection/maintenance provisions for the Stormwater Management system. Proper O&M is necessary to make sure the system will provide its intended purpose of conveying runoff, removing a substantial amount of the suspended solids, and other contaminants in the stormwater runoff.

A. Stormwater Inlets

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets include catch basins and field inlets. Field inlets exist in the bio-retention filters and grassed underdrained soil filters as overflow structures and in lawn areas in front of the building.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets near the sidewalk areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the buildings.

Frequency: All inlets should be inspected on a quarterly basis, and after/during significant storm events i.e. >1" rainfall).

Maintenance Personnel: The maintenance personnel will perform the normal maintenance/ inspections of the inlets and tributary drainage system.

Comments: Maintenance of inlets is critical on this project.

B. Tributary Drainage System

Preface: Stormwater from the project will be collected in catch basins in the roadway/parking lot and transported to treatment basins or directed through filters and into a conveyance (tributary) system which transports the flow to individual outfalls. The conveyance systems

serving each BMP will be principally overland flow discharging to piped drain systems other than the bio-retention filters which receive stormwater via rip rap inlets along the edge of the reinforced turf fire lane. Most sediment generated will be collected in the roadway catch basins and trapped in those structures or within the rip rap inlets leading down to the basins. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the onsite systems.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that the carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems, the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with debris.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long-term basis, and that its operation does not transport excessive sediments to any downstream treatment device or the receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. If a temporary filter bag has been designated for the inlet during construction, silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with the sediment and replaced during construction. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the Development. The removed material must be disposed of at an approved site for such materials.

If sediment in the pipeline is observed, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed.

Frequency: The tributary drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

C. Grassed Underdrained Soil Filter

Preface: The grassed underdrained soil filter collects stormwater runoff from drainage swales and the closed drainage system in the roadway/parking area before passing it through a treatment section and discharging onto the south and east sides of the site. The soil filter is an underdrain system with multi-media aggregates.

Inspection/Monitoring: The soil filter can be inspected visually and should be inspected regularly and especially after a significant rain event (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. This is particularly important around ditch lines and pipe inlets.

Large Debris

Large debris such as trash should be removed on a routine basis.

Turf Maintenance

The basin should be allowed to develop for one full growing season post-construction prior to their first mowing. This allows for natural re-seeding of grass seed mixes and establishment of a healthy stand of grass. After the first year, only mow grass two times per year maximum. A minimum 6" height of grass should maintained in the filter at all times.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example,

the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.

4. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
5. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.

Water the grass in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the grass to re-establish.

Frequency: The grassed underdrained soil filters should be inspected semi-annually and maintained as necessary.

Maintenance/Inspection Responsibility: The Owner or an outside agent is responsible for inspection and maintenance of the porous pavement areas.

Comments: The grassed underdrained soil filters are critical to the stormwater management plan as they provide treatment for the entire road and driveways/front yards and roofs. Snow storage is prohibited within the basins.

D. Bio-Retention Filters

Preface: The bio-retention filters are soil filters with planted soil beds, an underdrain system with multi-media aggregates set in a shallow basin. Stormwater runoff is conveyed to the filters from the surface before passing through the filter and into a closed drainage system.

Inspection: The bio-retention filters can be inspected visually. Visual inspections should also occur after large storm events (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. Inlets for each of the bio-filters is through drainage swales or direct sheet flow. It will be important to ensure that debris and grass clippings are properly removed and do not settle in these swales.

Large Debris

Large debris such as trash should be removed on a routine basis.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter. This should also be performed by hand in order to protect the vegetation.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example, the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.
4. Harvest the plants (when applicable). Care should be taken in the removal and temporary storage of the plants so that as many as possible can be harvested for replanting in the soil filter area once the functioning of the device has been restored sufficiently.
5. Remove the mulch layer.
6. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
7. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.
8. Replant the harvested plants and replace any plants that were rendered unusable during or following their removal from the soil filter area.

9. Replace the removed mulch layer with fresh mulch.
10. Water the plants in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the plants to re-establish themselves.

Frequency: The bio-retention filters should be inspected semi-annually and maintained as necessary.

Comments: Snow storage within the filter area is prohibited by Maintenance Personnel.

E. Level Lip Spreaders

Preface: Level spreaders are a vegetated or mechanical structure used to disperse or "spread" concentrated flow thinly over a receiving area to reduce erosion and movement of sediment as well as filter sediment and soluble pollutants, and sediment-attached pollutants.

Inspection: The level spreader should be inspected twice annually and after major storms (i.e. >0.5") for sand accumulation and debris that may reduce its capacity.

Maintenance: The procedures for maintenance are as follows:

Sediment Removal:
Sediment buildup within the swale or storage area should be removed when it has accumulated to approximately 25% of the channel capacity.

Debris:
Remove debris such as leaf litter, branches and tree growth from the spreader.

Snow Storage:
Snow should not be stored within the area of the level spreader.

Frequency: The Level Lip Spreaders should be inspected twice annually and maintained as necessary.

Comments: Reconstruction of the level spreader may be necessary when sheet flow from the spreader channelize. Each of the level spreaders employed as part of the project will receive flow from BMP outlet pipes.

F. Proprietary Treatment Devices (FocalPoint®)

Preface: A FocalPoint® system will be used on site to treat surface runoff from impervious and landscaped area.

Inspection: Inspection of the filter should be performed after each major rainfall event to ensure that stormwater runoff is able to pass through the filters. The vegetation should be inspected and maintained regularly similar to other landscape features on site. The underdrain outlet should be inspected regularly.

Maintenance: Clear inlets and pretreatment devices of debris and sediment. Maintain as instructed by manufacturer.

Frequency: The system should be inspected semi-annually and maintained as required by the manufacturer.

Comments: The manufacturer typically commits to the first year of maintenance if their strict guidelines are followed for installation, which is highly encouraged to achieve peak performance. It is recommended that an outside agent who is familiar with the product be retained for future maintenance.

G. Outlet Control Devices

Preface: Outlet control devices are utilized for all BMPs on the project, to ensure proper drain down times.

Inspection: Inspection of orifices should be performed after each major rainfall event to ensure that stormwater runoff is able to discharge through the orifice and that it is not clogged.

Maintenance: The orifice cap should be removed and all debris flushed from the pipe prior to reinstalling the orifice cap. Gate Valves should be opened and flushed prior to reinstalling.

Frequency: The orifice control devices should be inspected semi-annually and maintained as needed.

Comments: This project uses gate valves for the grassed underdrained soil filters bio-filters. An orifice cap is utilized for the grassed underdrained soil filter. An orifice in a weir wall is used for the underground water quality storage chambers.

H. Litter

Litter should be removed as a matter of course by workers and as part of the ground's maintenance contract.

IV. PROGRAM ADMINISTRATION

A. General

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities. (Maintenance continues for the lifespan of the development in accordance with this document)

2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.

3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.

4. The administrative body must have the staff to accomplish the inspection and maintenance programs or must have authority to contract for the required services.

5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.

6. A qualified post construction inspector shall be retained by the Owner. His/her duties shall include preparing schedules for the Owner's maintenance, summarizing the results of this maintenance and preparing an annual report on the operation, maintenance, and repair of the stormwater system which must be copied to the City. (The Owner shall be responsible for retaining a separate entity to perform maintenance which cannot be performed by the management of building and property grounds.) This person shall also participate in troubleshooting of the stormwater management system if a problem develops.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. Record Keeping

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

Beyond the initial 5-year time span of the original approval and maintenance plan, the stormwater management system will need to be recertified through the Department every 5 years to confirm that there is conformance with the original permit documents. This process will ensure all systems function properly over time. This document will remain valid throughout any subsequent recertification processes.

C. Contract Services

In some instances, or at specific times, the Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document.

In such cases, the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Summary Checklist
Inspection and Maintenance

Stormwater Management System Maintenance Program Summary Checklist						
Item	**Commentary**	**Frequency**				
		Monthly	**Quarterly**	**Semi-Annual**	**Annual**	**Long Term**
Stormwater Inlets	Stormwater inlets allow flow entry from a surface swale to a piped system. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.		X		X Clearing	
Tributary Drainage System	Inspect to assure that the carrying capacity has not been diminished by debris, sediment or other hydraulic impediments.				X	
Grassed Underdrained Soil Filters	Remove debris from filter area. Inspect health of grass and filter media. Fix eroded areas as soon as possible. Snow storage is prohibited on the filter bed.			X		
Bio-Retention Filters	Remove debris from filter area. Inspect health of vegetation at beginning and end of year. Fix eroded areas as soon as possible. Replace mulch every year. Snow storage is prohibited on filter area.			X		X
Level Lip Spreaders	Inspect berms and ditches after rain events >1" and remove sediment. Check for signs of clogging and flush berm if necessary. Remove woody vegetation.			X		X
Orifice Control Devices	Inspect after major storm events and clear debris from orifice. May require flushing of pipes.			X		
Litter	Litter should be removed daily.					
Focalpoint System	Inspect after major storm events and clear debris. Refer to manufacturer guidelines.			X		X

APPENDIX B

Sample Inspection Logs

CITY HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT
SAMPLE STORMWATER INSPECTION & MAINTENANCE LOG

This log is intended to accompany the Operation and Maintenance Manual for Stormwater Management and Related Facilities. All stormwater BMPs shall be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions of the DEP Stormwater Permit, shall conduct inspections of the facilities as described in the O&M Manual and on this form, and identified deficiencies must be corrected. This log shall be kept on file for a minimum of five (5) years.

A. General Information			
Project Name:		**Inspection Date:**	
Parcel/Lot:		**Current Weather:**	
BMP Owner:		**Date/Amount Last Precip.:**	
Owner Mailing Address:		**Inspection Company:**	
Owner Phone #:		**Inspection Co. Mailing Address:**	
Owner Email:		**Inspector Name:**	
		Inspector Phone #:	
		Inspector Email:	

B. Stormwater Inlets	**Observations**
Frequency: Annually in the spring	
Accumulated sediments from inflow channels and pipes between basins have been removed and legally disposed of	☐ Yes ☐ No ☐ NA
Floating debris and large sediment particles have been removed from inlets.	☐ Yes ☐ No ☐ NA
Stormwater Inlet Notes:	

C. Tributary Drainage System	**Observations**
Frequency: Annually spring or late fall and after heavy rains	
Remove and legally dispose of sediments	☐ Yes ☐ No ☐ NA
Remove floatables and other objects	☐ Yes ☐ No ☐ NA
Check for overgrown vegetation impeding flow	☐ Yes ☐ No ☐ NA
Check pipelines for siltation and clogging	☐ Yes ☐ No ☐ NA
Repair any slumping side slopes or erosion	☐ Yes ☐ No ☐ NA
Replace any riprap on areas where any underlying fabric or underlying gravel is exposed.	☐ Yes ☐ No ☐ NA
Tributary Drainage System Notes:	

D. Grassed underdrained Soil Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Grassed Underdrained Soil Filter Notes:	

D. Bio-Retention Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Replace mulch once per year	☐ Yes ☐ No ☐ NA
Check health of vegetation	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Bio-Retention Filters Notes:	

E. Orifice Control Devices	Observations
Frequency: Semi-Annually	
Check for debris blocking orifice	☐ Yes ☐ No ☐ NA
If applicable, flush underdrain pipe	☐ Yes ☐ No ☐ NA
Orifice Control Devices Notes:	

APPENDIX C

Stormwater Drainage
System Maintenance Agreement

STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT

DC Predevelopment LLC/City of Portland
City of Portland, Maine – Homeless Services Center at 638 Riverside Street

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **City Homeless Services Center ID PL-001682-2021 -** shown on the Overall Site Layout Plan, Grading, & Drainage Plan and Stormwater Management Plan (Exhibits A, B and C) prepared by Gorrill Palmer Consulting Engineers of 707 Sable Oaks Drive, South Portland, Maine dated last revised August 11, 2021 and pursuant to a condition thereof, DC Predevelopment LLC, a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of 100 Commercial Street, Suite 414, Portland, Maine 04101, the owner/operator of the Homeless Services Center facility, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

Maintenance Agreement

That it, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the bio-retention filter systems, Focalpoint® Bio-filtration system, roof line drip edge filter system, grassed underdrained soil filter system, roof drains and related onsite drainage infrastructure, (hereinafter collectively referred to as the "stormwater system"), as shown on the Stormwater Management Plan in Exhibit C and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers (copy attached in Exhibit D) and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner agrees to record a copy of this Agreement in the Cumberland County Registry of Deeds within thirty (30) days of final execution of this Agreement. The Owner further agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Services and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and liened if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax roles on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2021.

_____
(*name of company*)

_____
(*representative of owner, name and title*)

STATE OF MAINE
CUMBERLAND, ss. Date: _____

Personally appeared the above-named _____(*name and title*), and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

_____
Notary Public/Attorney at Law

Print name: _____

Exhibit A: Approved Site Layout Plan
Exhibit B: Approved Grading & Drainage Plan
Exhibit C: Stormwater Management Plan
Exhibit D: Approved Stormwater Inspection and Maintenance Manual

APPENDIX D

Permits for Project

(To be Added at a Subsequent Time)

ATTACHMENT E

AMISTAD
"People Helping People"

August 12, 2021

Amistad's outreach teams interviewed 37 individuals regarding Developers Collaborative's Homeless Services Center proposal, between June 21st and July 16th. All 37 respondents were adults currently experiencing homelessness, and were currently staying either at the Oxford Street Shelter, at a shelter satellite hotel, or at a campsite or other unsheltered arrangement.

Amistad's continuum of outreach programs is staffed by people with lived experience of substance use disorder, mental illness, homelessness, hunger, and other life challenges. The individuals conducting the surveys function as peers and allies with those they support, and their sole objective in conducting the surveys was to amplify the voices of those who are currently unsheltered or currently utilizing Portland's support system for those experiencing homelessness.

Participants were presented with the proposal, and asked to support the process with their thoughts and responses to the following questions:

NOTE: Participants were invited to add comments along with their responses. Specific comments from individual respondents have been recorded but are not included with this summary. The full report, with comments included, will be presented to the HSC design team to aid with their ongoing construction and design efforts.

- Does this design and location seem like it would be a safe place for you to be?
  YES: **28**
  NO: **5**
  UNSURE: **4**

  Does it seem safe for others?
  YES: **26**
  NO: **6**
  UNSURE: **5**

- If you stayed at this shelter, do you think you would hang around all day, or leave during the day and come back at night?
  STAY ALL DAY: **12**
  LEAVE AND RETURN: **9**
  UNSURE or IT WOULD BE DIFFERENT DAY TO DAY: **16**

- There are going to be meals, healthcare services, support groups, housing supports, and one-on-one peer support in the facility. How important are these to you, on a scale of 1 to 5? (1 = not important; 2 = somewhat important; 3 = important, but not very important; 4 = very important; 5 = extremely important)

  Average response:

  Meals: **4.9**

  Healthcare services: **4.7**

  Support groups: **4.2**

  Housing supports: **4.9**

  One-on-one peer support **4.7**

- There are several design features meant to create an environment that feels open, warm, safe, and welcoming, including the concepts below. Do you think these features will help make the place feel open, warm, safe, and welcoming?

˜ Clear sightlines

YES: **30**

NO: **3**

UNSURE: **4**

˜ High ceilings

YES: **31**

NO: **2**

UNSURE: **4**

˜ Natural light

YES: **31**

NO: **0**

UNSURE: **6**

˜ Minimal barriers/Easy-to-navigate space

YES: **35**

NO: **1**

UNSURE: **1**

˜ Efforts to reduce perceived crowdedness within the design

YES: **27**

NO: **3**

UNSURE: **7**

˜ Designated areas that provide a sense of privacy

YES: **35**

NO: **0**

UNSURE: **2**

- Does this building seem too big?

YES: **1**

NO: **33**

UNSURE: **3**

Do the sleeping areas look too big?

YES: **2**

NO: **32**

UNSURE **3**

- Do you think the locker space is adequate?

YES: **18**

NO: **10**

UNSURE: **9**

- Given that the sleeping areas are closed during the day, that means that the indoor space during the day is limited to the Day Room/Cafeteria (the dining tables will be broken down between meals), the entry area, and potentially some intentional space in the hallways. Does this seem like enough space for you, given the number of people that may be in the building at the same time?

YES: **20**

NO: **5**

UNSURE: **12**

- Do you think that transportation during the day will be a problem for you?

YES: **8**

NO: **21**

UNSURE: **8**

- What other features or amenities would help make this HSC positive and successful?

  NOTE: 14 participants responded to this open question. The number (#) following each suggestion refers to the number of respondents who offered the suggestion or notably similar suggestion.

  √ A clearly designated and covered outdoor smoking area (6)
  √ Garden beds (4)
  √ Stipends for live music played by HSC guests (2)
  √ Stipends for art created for the space by HSC guests (3)
  √ Onsite syringe exchange (21)
  √ Flowers and shade trees (5)
  √ A small library, or having the Book-Mobile come regularly (7)
  √ Employment counseling/support (5)
  √ Basketball court (4)
  √ Hammocks (3)
  √ Organized activities and outings during the day (3)

- Please share any other considerations or thoughts.

  NOTE: 8 participants shared concluding thoughts. The number (#) following each thought refers to the number of respondents who offered the thought or notably similar thought.

- Staff should be compassionate and trained to work effectively with people who have been through a lot. (7)
- Having to go through security makes it feel like jail. (1)
- If they could build a full-size storage facility on the property that would help so many of us out. (1)
- I'm someone who probably won't ever sleep at a shelter, no matter how nice it is. If they had a safe, designated space for people to sleep outdoors I would probably do it, because I'm sick of getting moved around all the time. (1)
- Good food is really important. I hope they won't try to save on the cost of food, because when people eat like animals they act like animals. (1)

Summary of First Listening Session, 8/9/21

On August 9th, Amistad hosted a listening session at our Peer Support and Recovery Center, with the intention of providing an opportunity for "peers" to engage in direct communication with the HSC development and design team, and to meaningfully impact the developing HSC concept and its' potential features. Peers, in this case, refers to those who have experienced homelessness in Portland. The group in attendance were individuals whose experiences of homelessness have been chronic and re-occurring. The participating peers shared perspectives that drew on their experiences staying at the Oxford Street Shelter as well as periods of being unsheltered while experiencing homelessness. The group met for three hours with Kevin Bunker from the Developers Collaborative and his design team, and provided a range of opinions and suggestions. During the course of the listening session, attending peers shared the following:

- A desire for multiple outdoor seating arrangements which would provide shelter from the elements and include a possible winter heating source. The idea of having separate outdoor shelters would provide peers with social choice and space for different types of relating. Moreover, outdoor seating would need to be accommodating to daytime resting. Peers also noted the importance of table surfaces throughout the outdoor space.

- Peers brought up the following outdoor amenities as being important:

  - access to drinking water and handwashing stations

- charging stations for cellphones
- an alert system which would be installed on the walkway to the facility for peers arriving to the shelter after dark
- outdoor clocks
- permanent bike locks
- secure outdoor storage

- Peers discussed the pros and cons of a fencing system. Overall, it was felt that NOT having a fencing system would increase the safety of guests, as a fence would limit access to anyone experiencing a medical emergency.

- Peers proposed a memorial space for community members to reflect on personal and collective loss throughout our community. It felt important that the memorial space be in a non-central location as to provide guests with the choice to encounter it or not.

- Peers echoed the designer's idea of a chalk-wall as a space for community expression.

- The full notes from the session are attached as Exhibit A.

Exhibit A
Homeless Services Center Focus Group Meeting – Site Design
8/9/2021
Attendees: 7 individuals currently or recently experiencing homelessness; Amistad peer support facilitators
Attendees from Design Team: Nick Aceto, Grace McNeill, Lisa Whited, and Kevin Bunker

- People who choose to stay outside generally don't want to be outside—they want to not be in the shelter system for a variety of reasons (CTO)
- Simple basic needs—bathrooms and water
- Space for trans and nonbinary people?
- Comfort is a major need (warm, comfortable spaces make a huge difference when you're constantly physically and mentally exhausted)
    - There is a certain comfort in a little leisure
- Stress and addiction makes you behave differently
- More outdoor and comfortable covered spaces
- Perhaps include a less harsh boundary (than a fence) to indicate the edge of property along the north/east side
- Outdoor phone charging and electrical outlets
- Plenty of trash cans
- Access to sharps disposal?
- Include space for shopping cart or other type of cart storage amongst bike storage?
- Need larger storage spaces for backpacks and other belongings
- Consider moveable or fixed furniture? Or both?
- Plenty of covered spaces—mostly for smoking, but also spaces for people to spread out a little
- Will there be an entrance area or separate boundary/area on the property that isn't managed by the city? Likely no.
- Need temporary cover for multiple days of foul weather
- Make sure the site is accessible for those with mobility issues
- Need proper lighting outdoors and indoors—can affect mood and safety of space
- Outdoor showers and bathrooms? Probably unnecessary.
- Raised garden beds had a good reception
- Access to drinking water outside—water bottle filling station?
- Need immobile cigarette butt disposal
- Want to have more activities that don't require staff interaction
- More small covered seating areas like gazebos instead of stage?
- More chalkboard spaces or graffiti tagging wall?
- Some kind of outdoor heating in the seating areas would be good
- Purposeful, built-in spaces that are always there and not controlled by staff will add a sense of autonomy (don't need to wait for staff to put chairs out)
- Want lots of spaces to be able to plug phones in

- Simple digital clocks around outside (to help people keep track of time to make it to relevant appointments)
- Consider including a separate memorial space for those lost in the community (must be a space that is optional to go to—don't want to make people uncomfortable or bring up trauma unnecessarily)
- Might need more than 5 parking spaces for guests— those with cars don't want to lose them and will need somewhere they can leave them safely. Should be able to add parking in future if this proves to be the case.
- Outside tv space? Or projector wall?
- Vending machines?
- Access to strong wifi outside is a must

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

August 31, 2021

Mr. Matt Grooms
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application – Letter of Response #2
Applicants: DC Predevelopment LLC and City of Portland

Dear Matt:

On behalf of **DC Predevelopment LLC and City of Portland (Applicants)**, our office has received and reviewed the latest Planning Staff review comments from your office on August 24, 2021. We offer the following responses to address the comments and questions from the second workshop meeting.

STAFF REPORT COMMENTS

The following comments were outlined in the Staff report to the Planning Board as requiring some additional information:

Site Access, Transportation and Parking

1. *TDM Plan has been reviewed by Bruce Hyman, Transportation Program Manager, who has provided the following comments (Attachment 3).*

   - *Discussions of Safety should include nearby segments on Forest Ave and the Riverside/Forest Ave intersection which are both high crash locations for 2018-2020.*
   - *The adequacy of lighting along Forest Avenue from the bus stop to the HSC site along the designated walking route shall be evaluated and supplemented by additional cobra head lighting if necessary.*
   - *TDM plan should note reduced transit intervals during off-peak schedule.*
   - *TDM plan should provide a timeframe by when parking reduction targets may be met, ex. Within 3 years.*
   - *The specifics of the existing discount/incentives should be specified to determine their adequacy.*
   - *The commitment to construction of a continuous sidewalk of adequate width on the west side of Riverside St is to be reiterated as an infrastructure strategy. Changes to sidewalks and crosswalks on Forest Avenue and the Forest/Riverside intersection may be needed based on the HCLs there.*

- *It would be desirable to make bicycle and walking safety information and equipment available to clients such as reflective material to add to clothing, reflectors for bicycles, headlights/taillights. It may be possible to partner with an organization such as the Gear Hub for bike repair training sessions so clients can become more self-sufficient for needed repairs.*

- *TDM Plan should discuss barriers to overall access to the HSC not just for TDM/alternative modes. The type of barriers should be listed (lack of access to bicycles, safety of routes to- from the facility, lack of transit passes, shuttle hours, etc.).*

- *TDM Plan makes reference to preferential parking for carpool parking but I did not see signage or pavement markings denoting their location. These should be located as near to the building entrance as practicable to incentivize the use of carpool.*

- *Staff would like to review and approve the bike racks to be used and their spacing/layout to ensure full functionality and security before the design of the pavilion is finalized.*

Response: Please see attached revised Traffic Demand Management Plan (also included as an Exhibit in the Management Plan) which addresses the comments above:

- **We have added accident data for the Intersection of Forest/Riverside and also for the length of Forest Avenue from the intersection south to the transit stop locations. The intersection is considered a high accident location, while both Riverside Street and Forest Ave near the intersection are not considered high accident locations.**
- **We have contacted Kevin Thomas of the City's DPW to verify the process for installing additional street lighting on the existing utility poles that are located along the west side of Riverside Street. The installation of additional overhead street lighting is acceptable as a Condition of Approval.**
- **The TDM has been updated to note the various weekday and weekend transit schedules. Transit service is reduced on Saturday and Sunday.**
- **A target timeframe of 3 years for parking reductions is now included in the plan.**
- **Additional information on incentives is included in the plan. Free METRO bus passes to shelter guests will continue to be available as they currently are today.**
- **The project will provide a 6' wide sidewalk on the west side of Riverside Street from the site to the Forest Avenue intersection. The project will also be responsible to improve the vehicle and pedestrian signal operations at the intersection to include updated pedestrian flashing equipment and coordination for phasing to include right turn movement prohibition during pedestrian crossings.**
- **Provisions for safety equipment to be made available are in the TDM.**
- **Statements regarding the barriers to TDM and how they can be overcome are now included in the TDM.**

- **Site signage for preferential parking is now included on the plan.**
- **Details for the bike racks and other site amenities are included on the landscape plans.**

2. *… Staff also asked that safe and appropriate pedestrian routes from existing transit stops be identified and encouraged through the use of wayfinding signage.*

Response: A Wayfinding Plan accompanies this response letter. The Plan includes the suggested locations for various wayfinding signs and pavement markings that will advise Service Center travelers the safe walking route from the Forest Ave transit stops to/from the Center's site on Riverside Street. Final details of wayfinding signage are acceptable as a Condition of Approval.

4. *The applicant commits to construction of an ADA accessible route between the HSC site and the nearest public transit stops along Forest Avenue. The City's consulting traffic engineer, Tom Errico, P.E. with T.Y. Lin, has provided the following comments (Attachment 2):*

   - *The applicant is proposing to construct a sidewalk along Riverside Street for a continuous pedestrian connection between the site and the METRO bus stops on Forest Avenue. In addition to constructing a new sidewalk, the applicant should upgrade existing sidewalks to be fully ADA compliant. I would also note that there may be a need for a wider sidewalk given user needs.*
   - *As noted, the pedestrian traffic signal equipment at the Forest Avenue/Riverside Street intersection will need to be upgraded. I will provide specifications in the future.*
   - *The applicant shall provide a conceptual pedestrian wayfinding signage system for review as it related to directional signage between the site and METRO stops.*

   The standard 5' width of the sidewalk suggested to be constructed along the west side of Riverside should be assessed for its adequacy assuming a high volume of usage, two-way pedestrian traffic and the potential for usage of push/luggage carts by clients - additional width above 5' should be considered - portions of the existing sidewalk appear narrow as well (possibly narrower than 5').

Response: As earlier stated, a new 6' wide paved sidewalk will be provided on the west side of Riverside Street for the full length from the site entrance to the Forest Avenue intersection. We believe that 6' is adequate for the proposed use and it will allow for adequate pass-by of walkers in both directions, including those with carts or similar personal items.

The existing signal equipment will also be updated to include, blank out signage for prohibiting right turn movements that might otherwise conflict with pedestrian crossings. The applicant is amenable to working with the traffic consultant and DPW staff at the appropriate time for these improvements in advance of a certificate of occupancy for the development.

The accompanying Wayfinding Plan provides suggested locations and signage options for consideration.

Site Design and Landscaping

1. *Material information has now been provided; however, staff are requesting that the building elevations themselves be updated to include material labels.*

Response: The accompanying architectural elevations by Winton Scott Architects provides the requested information.

2. *Staff held a second design review of the project, and found that the addition of new points of ingress/egress between the building and outdoor programmed areas addressed this comment, particularly given that such outdoor areas are intended as only accessible to shelter clients, staff and on-site service providers.*

Response: No further response required.

3. *City staff are now requesting that a fence be provided to delineate the western and northern property boundary, where the project site abuts conservation land. This will help limit the permeability of the site and deter against unauthorized camping in adjacent woodlands. Details regarding the fence shall be provided as part of a future submission.*

Response: The updated Site Plans and the Landscape Plan and details provide details and locations for the fence, as suggested during the second workshop meeting. The fence details and location also reflect coordination with the Portland Police Department, Department of Parks and Recreation, and Portland Trails. The applicant's team has also met with the City Arborist, Jeff Tarling, regarding the proposed plantings, their locations, and the surrounding slope areas and he had indicated acceptance of the plans as now prepared. The slopes are naturally vegetated now and will be substantially outside of the limits of work for the project.

4. *Coordinate with City on placement and design of street and wayfinding signage. Staff has requested a concept wayfinding signage program for further evaluation.*

Response: A Wayfinding Plan has been prepared and accompanies this submission. The plan reflects input from Bruce Hyman and Tom Errico.

Site Location of Development (SLOD), Stormwater, Grading, and Utilities

2. *The City's Consulting Civil Engineer, Lauren Swett, P.E. with Woodard and Curran, has reviewed the stormwater plans and report provided, and has provided the following comments (Attachment 5):*

   - *The proposed Grassed Underdrained Soil Filter is shown on the landscaping plan with Dogwood shrub plantings, similar to the bioretention filters. While I believe this material is appropriate for the bioretention filters which generally have 6" or so of water ponding, the soil filter, which could have up to 18" of water ponding should be planted with grass.*
   - *An emergency spillway should be provided for the underdrained soil filter.*
   - *I would also recommend that similar spillways be provided for the bioretention cells given their location discharging to the steep slopes. These could potentially be located in line with the outlets to utilize the rip rap for outlet and emergency overflow.*

- *A final letter from the FocalPoint manufacturer confirming the system's design should be provided.*
- *Further information on roof drainage/roof slopes should be provided. Based on the originally submitted building elevations, I was not able to see how the roof drain will drain to the proposed drip edge.*
- *A grasspave material has been noted for the fire truck pathway. The Applicant should confirm that the selected system has been designed for the fire truck loading. There are two details provided, one on the civil and one on the landscape plan.*

Response: The following responses are provided for each of the bulleted comments:

- **The soil filters will be planted with a native grass cover as now shown on the landscape plans by ALA.**
- **The Grading and Drainage plan and Stormwater Management Plans have been updated to include small spillways for each BMP.**
- **The Focal Point information was previously contained in the Stormwater Management Report as an attachment. We have also included in this response package for ease of review.**
- **The rear of the building contains a pitched roof that will shed runoff toward the drip edge at the back of the building. Roof drains will be provided for the flat roof areas of the building. The drains will be piped to the Focal Point at the front of the site. This has been reflected on the architectural plans. We have revised the stormwater management summary as a greater portion of the roof will drain to the drip edge filter rather than the Focalpoint. There are no changes to the treatment percentages offered as part of the stormwater management plan**
- **The grasspave system is specified as the Ecoraster E40 that is rated for emergency and fire apparatus. The applicant reserves the right to substitute an "or equal" product that provides equivalent loading capacity.**

4. *A grease trap has now been provided, however details on the grease interceptor should be revised to meet City standards, which require a baffle wall separating the unit into 2/3 and 1/3 areas (Attachment 4).*

Response: The grease trap detail has been updated to meet the City standards including a double baffle system inside the structure.

7. *Additional plantings have been provided, and the City Staff are continuing to review the grading and drainage plans to ensure the slope at the rear of the property is adequately stable.*

Response: ALA Architects has discussed these conditions with Jeff Tarling. It has been noted that the existing slopes are located beyond the limit of work for the Homeless Service Center and thus the slopes will not be disturbed during of construction. As evidenced below in the photographs the slopes are vegetated with a mix of meadow and intermittent young saplings, alders and various tree species.

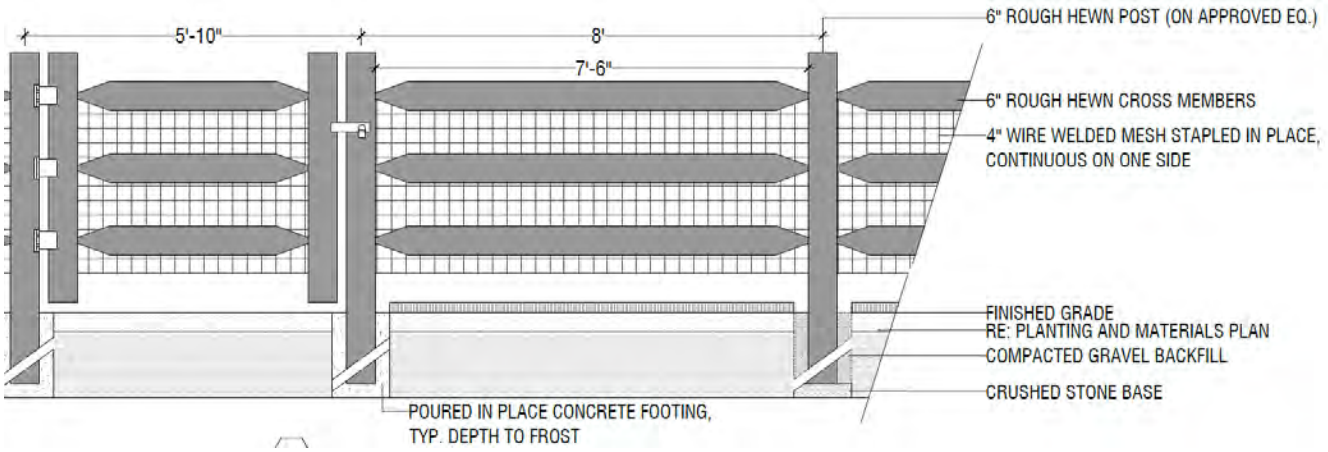
General Comments Posed by Planning Board and Public

2. *Identify all existing fencing on/near the site for other lots.*

… Staff Response: As noted at the July 27th workshop, there is no requirement that the proposed development construct a perimeter fence for either buffering or security purposes. The applicant's proposal to ensure that fencing is erected along the entirety of the property boundary shared with existing development is responsive to abutter concerns, and therefore is appropriate.

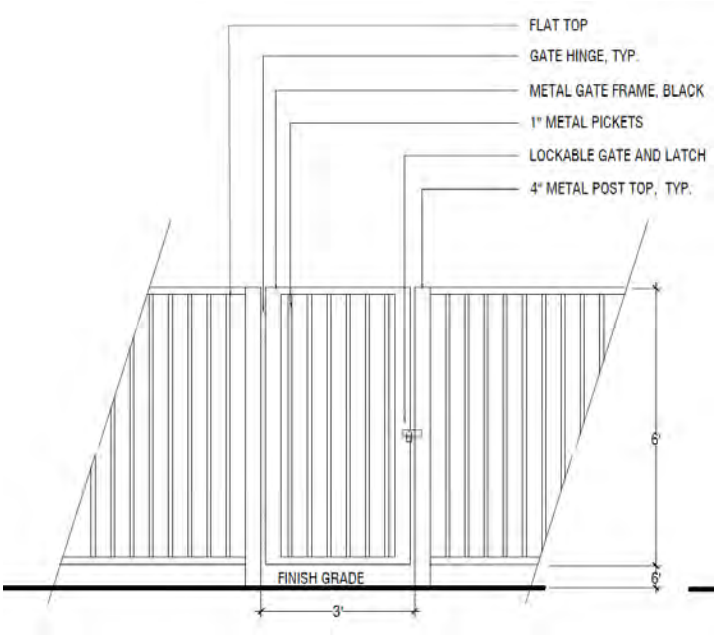
In addition, staff from Parks and Recreation have requested that additional fencing be erected to delineate the western and northern property boundary, in order to decrease permeability between the HSC and surrounding woodlands. Staff are coordinating with the applicant to determine the most appropriate form of fencing to ensure visual transparency, manage access to nearby trails, and deter unauthorized camping on adjacent conservation land.

Response: Fencing locations have been added to the Site Plan and Landscape Plans. Details include the use of a low wood post fence along the north side of the site and a traditional metal picket fence on the south and west perimeters. The applicant has committed to filling all gaps in perimeter fencing along the abutting properties to assure safety and security between the properties. The images on the following pages depict the proposed fencing styles. Chain link fencing to match the existing on the abutting properties will also be used as needed.



3. Show solid waste enclosure.

Response: A detail for the wood style solid waste enclosure has been added to the civil detail sheets Drawing C-8.1.



4. Management Plan updates.

Response: Per Board comment, the Management Plan has been updated with more detail on the HSC's conflict and neighborhood resolution procedures. The Plan has also been updated to reflect that the monitoring program will include the Portland Trails system. A copy of the updated Management Plan has been uploaded to eplan for staff and Board review.

5. August 19, 2021 Police Department Memorandum.

Response: The Police Department outlined five (5) potential safety issues that the development team has addressed as follows:

1) **The Management Plan has been updated to include monitoring of the Portland trails network and to maintain full time surveillance around the site. The inclusion of a perimeter fence system will also help address the potential for safety.**
2) **Video surveillance will be utilized for both interior and exterior activities. The HSS staff will work diligently with the Police Department to provide sensible and sensitive solutions for video surveillance. A condition of approval involving further/ongoing cooperation with the Police Department is appropriate.**
3) **An emergency call box has been positioned on the main entrance walkway halfway between the street and the building entrance.**
4) **The site planning and landscaping utilize Crime Prevention through Environmental Design (CPTED) concepts including low bushes and shrubbery among other techniques to provide for a safe onsite environment.**
5) **The team is committed to providing consistent messaging and enforcement regarding guest behavior and specifically interaction with the neighborhood. The Management Plan includes updates on this concerns as previously outlined and now contained in the updated Plan.**

We look forward to the Planning Staff and peer review final consideration of these application materials. We appreciate the various aspects of input received over the past month, all of which lends to a stronger plan and approach for this vitally important project. We look forward to a finding that the project is ready for a Public Hearing and possible Planning Board consideration for approval.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Uploads to Eplan:

- Stormwater Management Summary & Focal Point Information
- Updated Management Plan
- Architectural Elevation
- Civil Site Plans and Detail
- Landscape Plans and Details

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigfridson
Kristen Dow, City of Portland
Steve Weatherhead, Winton Scott Architects
Nick Aceto, ALA

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\P Applications\Local\major site plan\LOR\LOR#2\LOR2_grooms_homeless center_08.31.2021.docx

ATTACHMENTS

DESIGN WORKSHEET

FOCALPOINT

MAINE CHAPTER 500 PROJECTS

1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf) See step 2 to determine if minimum size is appropriate.**
   - Tributary impervious area: = 0.86 ac **(A)**
   - Tributary pervious area: = 0.56 ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 189 sf
   - FocalPoint bed area provided: = 200 sf
   - Dimensions of proposed FocalPoint: = 10 ft x 20 ft

2. **A 0.95-in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 400 ft^3
   - Peak ponding depth from 0.95-in 24-hr storm event: = below mulch in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = 1 : 2

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1-yr 24-hr storm event.**
   - 1-yr 24-hr peak flowrate: = 1.82 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (HD singles or taller - 1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 91

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled release of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☐

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer's representative**
   - The design has been reviewed by ACF Environmental ☐
   - Engineer will coordinate installation inspection with ACF Environmental ☐

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within FocalPoint must be a minimum of 174 sf per 1.0 acre of impervious area (26 sf per 0.15 acres). Thickness of the media is to be no less than 1.5 ft (18 in).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:

FOCALPOINT ACCESSORIES:

Pretreatment - Rain Guardian Turret

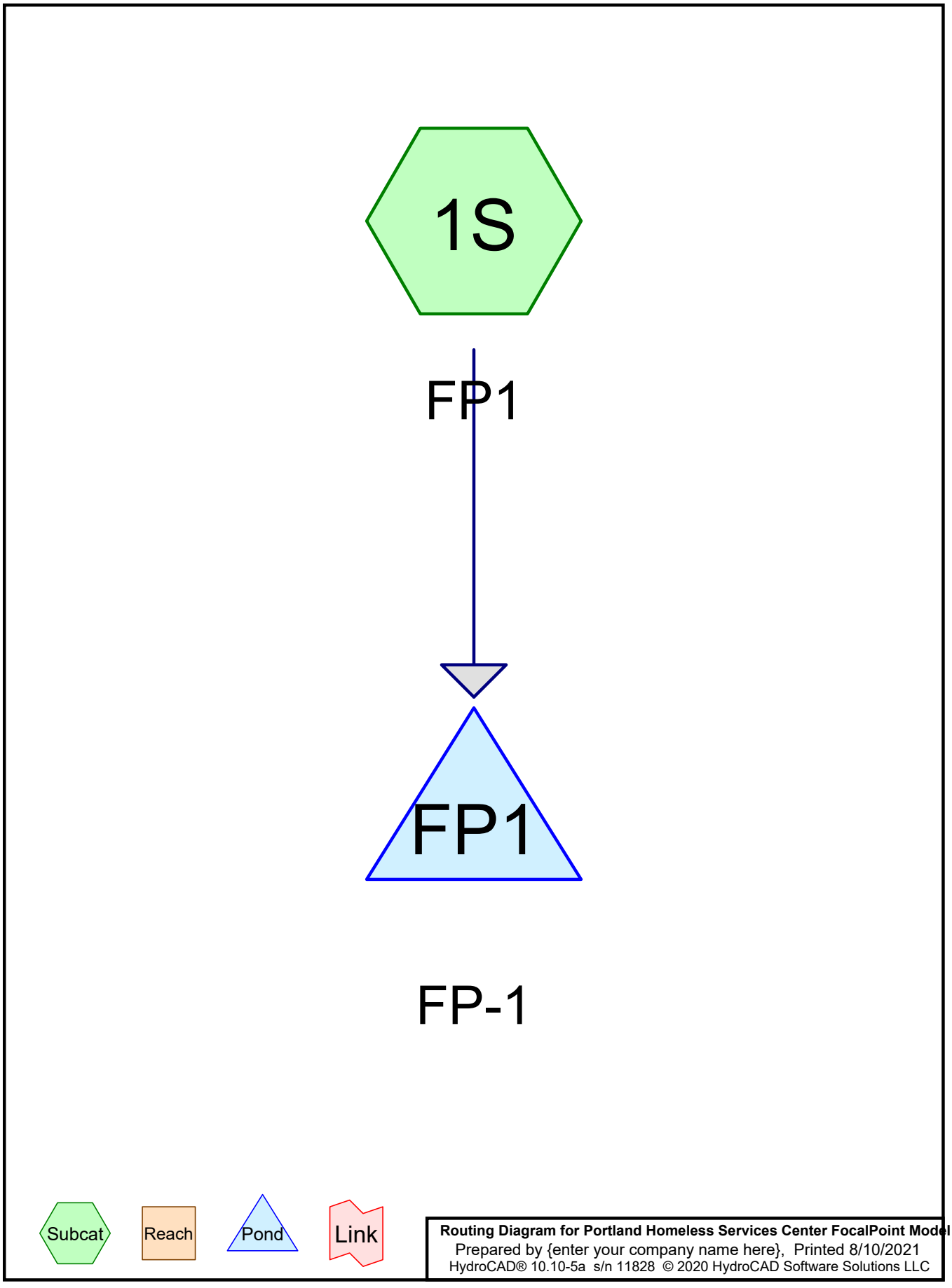
Pretreatment - Rain Guardian Foxhole

Pretreatment - PreTx

Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com


1S
FP1
FP1
FP-1
Subcat
Reach
Pond
Link
Routing Diagram for Portland Homeless Services Center FocalPoint Model
Prepared by {enter your company name here}, Printed 8/10/2021
HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: FP1

Runoff = 0.10 cfs @ 12.15 hrs, Volume= 501 cf, Depth> 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 0.95-in Rainfall=0.95"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 0.10" for 0.95-in event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 501 cf
Outflow = 0.10 cfs @ 12.15 hrs, Volume= 500 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.10 cfs @ 12.15 hrs, Volume= 500 cf
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.77' @ 12.15 hrs Surf.Area= 200 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 499 cf (100% of inflow)
Center-of-Mass det. time= 0.1 min (864.7 - 864.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.15 hrs HW=61.77' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.75' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 1S: FP1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf, Depth> 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-YR Rainfall=2.60"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 1.05" for 1-YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf
Outflow = 1.29 cfs @ 12.20 hrs, Volume= 5,358 cf, Atten= 29%, Lag= 6.0 min
Primary = 0.46 cfs @ 11.90 hrs, Volume= 4,675 cf
Secondary = 0.83 cfs @ 12.20 hrs, Volume= 683 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.62' @ 12.20 hrs Surf.Area= 200 sf Storage= 663 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (809.5 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.46 cfs @ 11.90 hrs HW=62.10' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Secondary OutFlow Max=0.82 cfs @ 12.20 hrs HW=64.62' (Free Discharge)
└**2=Orifice/Grate** (Weir Controls 0.82 cfs @ 1.12 fps)

Portland Homeless Service Center - Stormwater Management Summary

Revised 08.31.2021
08.11.2021
Designed By: KAB
Checked By: SRB

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	35078	0	35,078	35,078	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	52954	22,963	75,917	52,954	22,963
103a	0	7,664	7,664	0	0
103b	34364	24,258	58,622	34,364	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,178	5,728	3,107	3,226
101e	Roof Line Drip Edge Filter	2,923	3,273	-	-
101a, 102a, 103a, 104 (untreated)	-	-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

City of Portland Homeless Services Center

Management Plan

I. Overview:

Description:

The City of Portland Homeless Services Center at 654 Riverside Street will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18.

This will continue the city's mission of providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. In partnership with area service providers, we provide services to our consumers with an emphasis on compassion, dignity, respect and the highest standard professional demeanor toward this mission.

In the calendar year 2019 (last full year pre-Covid) the City served nearly 1,700 unduplicated individuals providing over 71,000 bed nights.

The Oxford Street Shelter currently serves a diverse population and we intend to continue that at our Homeless Services Center. We serve homeless women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, as well as those struggling with substance use and mental health. The Homeless Services Center has the capacity to serve an entire community's needs, complementing the smaller specialized shelters in the city and enhancing their capacity through a robust referral process maximizing resources across our system. This provides the highest level of service by those most equipped to help. This Homeless Services Center is designed to be compatible with the latest thinking of service provision, as the hub in the hub and spoke model as detailed in the work of the Statewide Homeless Council.

History of Oxford Street Shelter:

The Oxford Street Shelter opened in December of 1989. At 50 beds, it was the largest adult shelter in the state of Maine. Beds increased to 62 four years later and again to 80 beds in 1996 after leasing the adjacent building due to an increase in homelessness. The City and shelter staff continued to step up and meet community needs as they increased, seeing a rise in census in 1998 and 1999 until reaching 154 beds in 2000. Need continued to increase and community overflows were opened at the Salvation Army and the Preble Street Resource Center. Realizing the limitations of our space on an operational level (not having enough beds, difficulties being spread over multiple floors, transitioning from dorm to day use, etc.) and at the client experience level (not having the dignity of sleeping in a bed, needing to move throughout the day to meet basic needs of food and shelter, etc.), City

leadership started exploring the best way to improve our services and the lives of the people we serve. The process of this pursuit is outlined in **Exhibit 1**.

Impacts of COVID:

Prior to the COVID-19 Pandemic, our current facility at 203 Oxford Street was able to accommodate 154 individuals for overnight shelter. We utilized the Preble Street Resource Center to provide overnight accommodations for additional overflow space increasing capacity by 75 male beds. Our client's additionally utilized Preble Street's congregate soup kitchen for meal services.

At the onset of the pandemic, Oxford Street Shelter consulted with the CDC and reduced its maximum capacity to 75 beds based on their recommendations. Due to social distancing requirements causing the closure of our overflow space and meal facility, we opened a second 24 hour, socially distanced shelter. In addition, our staff began picking up meals three times a day from the Preble Street Soup kitchen and delivering them to our two facilities.

The pandemic has had a large influence on the design of the Homeless Services Center. The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.The footprint of the center has increased to allow for appropriate social distancing in areas where guests will be frequenting, including both the dining and sleeping areas. CDC space recommendations equate to 113 s.f. of floor area be allocated per person in sleeping areas. There is a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. There are 7' to 8' distances typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to afford some privacy and to provide a physical barrier between guests to further protect against COVID transmission. The CDC recommendations also include maintaining 6' distances between guests in eating areas. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

The CDC also provides guidance for HVAC systems to minimize transmission that include: maximization of outside air intake; use of HEPA level filters that are changed out at regular intervals; supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems; humidity control systems. Design staff will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

During the pandemic, our clients were grateful. While many of our community partners understandably closed programs or reduced hours, the City shelter remained open. Many of the spaces individuals had utilized for years were no longer available to them. At Oxford Street, many clients slept, connected with staff for their daily needs and ate their meals in metal folding chairs all in the same room. We feel strongly that clients deserve a better and more dignified space. We have seen that a more dignified space allows clients to feel more self-worth and motivation towards moving forward from temporary emergency shelter.

Lessons Learned:

Running two 24 hour facilities during the pandemic created challenges but also presented learning opportunities. Staff had been envisioning our new Homeless Services Center with a more dignified approach to shelter for some time, well before we began operating a temporary shelter at the Portland Expo.

At the time that we began utilizing the Expo, staff were amazed in the ways in which the open space could be used to create a more all-inclusive shelter: the layout of the Expo building with open site lines, the ability for clients to have more privacy and not need to line up outside, the room to have both day and night spaces set up without needing to be broken down for cleaning (thus shuffling clients around throughout the day), the capacity for providers to meet with their clients on-site, and the space for clients to store their belongings. This aligned with many of our goals for the Homeless Services Center.

Vision of a Homeless Services Center:

It is the goal of the City of Portland to open a new state-of-the-art, one-story, adult emergency shelter to replace the Oxford Street Shelter. The new shelter will be open 24-hours a day, 7-days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 2** for a more comprehensive list of services.

The City of Portland's shelter clients and valued staff deserve to live and work in a respectful and safe environment. We will no longer allow some of our most vulnerable community members to live in inadequate conditions and in locations where they are easily abused, taken advantage of, and judged for their perceived shortcomings.

The new location will be a one story building easily accessible to all. Our clients will be able to access the space 24-hours a day and will not need to leave with their belongings. They will have a large day space with an area for meal services including a kitchen where staff will serve meals. We will have indoor storage lockers, bathrooms, laundry services, and clients will be assigned to beds rather than mats on the floor. Sleeping areas will have beds where each individual will have a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The bed layout will provide increased ability to socially distance and will provide an increased sense of privacy, as beds will be set in quads.

Additionally, our new location will have a full service federally qualified health clinic, offering medical, mental health, substance use treatment, and dental services on-site. We will have small group rooms and offices for peer support and community providers to access, greatly improving the service delivery model and community collaboration.

Importantly, the design of the new facility has been informed not only by the multi-year planning process described elsewhere in this document, but by actual potential users of the facility. As part of the planning and design process, Amistad has conducted current client surveys regarding aspects of the new facility. Additionally, Amistad facilitated a design listening session with unhoused peer groups, who had a chance to offer direct feedback to the developer and the design team in attendance. Further workshops will be held on detailed design (during the architectural design development phase) and on operations (during the construction phase). Amistad's work has been submitted under separate cover as part of the Planning Board application.

Housing Services:

The City is dedicated to providing housing services to all who access our facility. While the pandemic made housing access difficult, our established relationships with landlords continued to afford our clients options to secure housing. In the year of July 1, 2020 to July 1, 2021 the housing team successfully placed 103 individuals into housing. The housing team's extraordinary work is recognized by experts in the field; in 2017, the National Alliance to End Homelessness (NAEH) honored the Oxford Street Shelter for our work on the Long Term Stayers Initiative with their Pioneers in Innovation and Excellence award, highlighting that in "the program's first two years, 125 people – representing a combined 150 years of shelter stays – have been successfully housed."[1]

The Long Term Stayers (LTS) initiative started in April of 2015 when the City collaborated with local housing services providers to target their efforts with a by-name list of the most vulnerable and difficult to house individuals staying at the Oxford Street Shelter. At the time, the shelter had 44% of the state's long term stayers[2]. In Portland, long term stayers are defined as people staying over 180 cumulative days in shelters or outdoors within a 365-day period. This definition was created because HUD's Chronic Homelessness definition did not capture single adults who tend to bounce from shelter to shelter whose lengths of stay in any one shelter do not meet the HUD definition of chronically homeless. From April 2015 through June 2021, this initiative targeted 580 people identified as long term stayers and housed 345 of them. According to their HMIS data, this group collectively had more than 650 years of homelessness, and more than 200,000 total bed nights. There has been a 91.03% success rate in scattered site apartments due to the combination of rental subsidies and support services.

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[1] NAEH. (n.d.). *National Alliance to End Homelessness Honors Pioneers inInnovation and Excellence at Annual Awards Ceremony.* End Homelessness. https://endhomelessness.org/wp-content/uploads/2016/10/Awards-Ceremoney-for-distro-101017.pdf

[2] Community Housing of Maine. (2021, July). *Maine's Long Term Stayers Initiative History & Accomplishments* [PowerPoint presentation].

On-Site Services Provided by Community Partners:

An integral part of the design for the Homeless Services Center is a facility that allows for providers to be on-site with our clients. Throughout the planning process we have received great support and commitments from many of our community partners seeking to offer services to clients at the new Homeless Services Center location. (Please see **Exhibit 3** for a list of community partners.) Below are a selection of responses we received from providers describing their plans for outreach and service delivery at the new facility in no particular order:

Greater Portland Health

Through a harm reduction model and through trauma informed approach, we propose to provide primary medical care, behavioral health services, substance use services, infectious disease services, dental services, and outreach support.]The clinic will include two medical providers and two medical assistants along with a dental team consisting of a dentist, hygienist and two dental assistants. Additional staff will include a social worker, a psychiatric nurse practitioner, patient service representative, community health worker and a financial assistance counselor.

Preble Street

Preble Street is very excited about partnering with the City of Portland to support the centralized service model for the Homeless Services Center. Preble Street offers a variety of services that specifically target individuals experiencing homelessness, so having a robust involvement with the Homeless Services Center, the largest emergency shelter in Maine, would be a necessary and important component of their work.

Preble Street would actively seek to have an outreach presence at the new Homeless Services Center through various programs. Preble Street's Veteran Housing Services currently tracks all veterans that enter the emergency shelter system in Maine and would work collaboratively with HSC staff to identify and link homeless veterans with intensive housing-focused case management. Similarly, the Anti-trafficking Services (ATS) offered by Preble Street would serve as a valuable resource for any victims of human trafficking who present at the HSC. In conjunction with providing intensive outreach and case management to these individuals, the ATS team would be available to coordinate services and referrals with HSC staff and able to provide trainings as requested to increase staff's awareness of human trafficking.

Additionally, staff from Preble Street's Rapid-Rehousing Services (RRH) would outreach and engage eligible individuals at the HSC and coordinate services with HSC staff. In its first year of operation, the RRH team enrolled many individuals who regularly stayed at the Oxford Street Shelter and secured permanent housing for a high percentage of these individuals. Given these precedents, it is likely that the HSC would be an important referral source for Preble Street's ongoing RRH work. Along these lines, the Street Outreach Collaborative (SOC), Preble Street's mobile street outreach team which targets individuals experiencing unsheltered homelessness, would work specifically with the unsheltered

community to problem-solve the barriers that may be preventing them from accessing the HSC and other emergency shelters. The SOC would also be able to help HSC staff support clients in maintaining their emergency shelter placement. In its first year of operation, SOC connected 158 individuals to emergency shelters in Portland.

In addition to these service specific outreach efforts, Preble Street Homeless Voices for Justice (HVJ) would also seek to have a presence at the HSC. HVJ currently does regular outreach at Oxford Street Shelter, which they would plan to continue at the new Homeless Services Center. This outreach is done to inform clients of campaigns, to share what HVJ is working on, to hear from clients about what needs are arising, and to build connections between HVJ Advocates and current shelter clients. Additionally, HVJ sees potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, HVJ also hopes to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in advocacy work.

As demonstrated, the clients at the HSC would be an important focus of outreach from a wide variety of Preble Street programs. In addition to this considerable outreach presence, Preble Street envisions a continuation of the close collaboration between the HSC and their emergency shelters (Joe Kreisler Teen Shelter, Florence House Women's Shelter, and the Wellness Shelter) to ensure that youth, vulnerable women, members of the unsheltered community, and other at-risk individuals are triaged and linked to other shelters, as necessary. This would occur because of on-the-ground coordination between HSC and Preble Street staff to help streamline emergency shelter bed management across both organizations and ensure that individual clients are matched to the most appropriate emergency shelter resource available. The Wellness Shelter, in particular, will be an integral part of the City's shelter work and recently an MOU was created between the City of Portland and Preble Street to formalize this: "The Preble Street Wellness Shelter works closely with the City of Portland Oxford Street Shelter to best serve individuals experiencing homelessness and plan effective overflow options. As a result of this partnership, including coordinated assessments and referrals to the Preble Street Wellness Shelter, the number of persons within the City who are unsheltered, unsafe, and become a concern for emergency services is greatly reduced."

Furthermore, Preble Street commits to continued collaboration with HSC staff and clients through Preble Street case management and advocacy programming including the H.O.U.S.E. (Homeless Opioid Users Service and Engagement) program, the Long-Term Stayers meetings, Maine Homeless Legal Aid Project, and needed clinical assessments provided by Preble Street LCSWs.

Homeless Voices for Justice

Homeless Voices for Justice's engagement with the new Homeless Services Center will mirror our current engagement at Oxford Street Shelter. Homeless Voices for Justice currently does regular outreach at Oxford Street Shelter, which we plan to continue at the

new Homeless Services Center. This outreach is done to inform clients of our campaigns, to share what HVJ is working on, to hear from folks about what needs are arising, and to build connections between the Homeless Voices for Justice Program and Advocates and current shelter clients. Additionally, we see potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, we hope to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in our advocacy work.

Spurwink

Spurwink is excited to partner with the City of Portland's new Homeless Services Center (HSC). Currently Spurwink provides Behavioral Health Home, Opioid Health Home, and Assertive Community Treatment services to individuals staying at the Oxford Street Shelter. These services provide an integrated, multi-disciplinary team-based approach to care coordination, treatment, and support. Spurwink will continue to offer these services to clients at the new HSC.

During the pandemic, Spurwink offered emergency medication assisted treatment for opioid use disorder for quarantined clients, committed staff to daily outreach in Deering Oaks and at City Hall during the summer of 2020, and recently committed staff to outreach related to TB testing. We hope to continue these types of innovative partnerships to help meet community needs.

Finally, the City is contracting with Spurwink to hire two Community Engagement Specialists. These staff will be dedicated to the new 22 Park Street housing first collaborative, but will also assist as needed with city-wide outreach and engagement efforts. Spurwink expects these staff members will have a heavy presence at the new HSC.

The HSC offers a terrific opportunity to streamline services for both clients and community providers. Spurwink is excited to support this initiative.

Through These Doors

Through These Doors is Cumberland County's domestic violence resource center, serving victims and survivors of abuse and anyone affected by abuse and other related issues such as stalking, dating abuse, elder abuse, and both human trafficking and sexual abuse in the context of intimate partner relationships. TTD has an important role in working within the City of Portland's array of services to homeless individuals. We know that domestic violence is a leading cause of homelessness, especially for women, and that homeless people are vulnerable to further abuse when they lack housing security. TTD's advocates are trained to provide holistic safety planning, advocacy, support, and resource sharing in the context of the homeless system.

In the City's planned homeless center, we envision embedding a full-time advocate (as funding permits) on-site to be easily accessible. TTD has a wide variety of other services including legal and court advocacy, assistance with legal practices such as protection from abuse orders, navigating the justice system, and engaging and working within the CPS system. Our advocate on-site within the City's planned homeless center will be a link to all other TTD services to provide seamless, consistent services, all free of charge to homeless individuals.

TTD's on-site advocate will also be a resource to City staff as they support homeless individuals dealing with current safety issues and/or long term impacts of violence. TTD advocates work within other systems in Cumberland County (including CPS, law enforcement, and the schools) and we are told that employees within each system appreciate having on-site consultation available.

Amistad

Amistad's contributions to the HSC's model of supports and services will reflect the unique, peer-to-peer role that the agency plays in the community. Amistad's front-line Peer Support Specialists are not social workers or case managers; they are people with life experiences that are relatable to those who may present as guests at the HSC. Peer Support Specialists engage with guests/clients in a manner that is relationship-based, that acknowledges the expertise of each individual within their own life experience, and that allows for each person in the relationship to respectfully challenge the other to recognize their personal opportunities for growth and change.

At the HSC, Amistad's certified Peer Support Specialists will be able to contribute by providing:

- One-to-one peer support with HSC guests. The support offered is relationship-based, goal-focused, and private, and will be provided on-site and by phone or video conference.
- Facilitation of peer support-based groups. Trained facilitators will provide support groups, with a curriculum that will rotate and evolve based on the current needs and interests of the HSC guests.
- Support for the establishment of the HSC's Utilizers Union, and services, in an ombudsman-like role, for HSC management and guests. Identified Peer Support Specialists will hold roles that support the establishment and ongoing functions of a Utilizer's Union at the HSC, and will provide ombudsman-like support between HSC guests and HSC management and staff regarding complaints, areas of tension, and prospective changes to HSC policies and practices.

The Opportunity Alliance

The Opportunity Alliance (TOA) is a dynamic, results-focused Community Action Agency for Cumberland County, which was founded in 1965. TOA provides 50 integrated community based and clinical programs serving more than 20,000 people annually throughout the state of Maine. With over 50 years of experience, TOA draws from a comprehensive set of

programs which address issues such as mental health, substance use, homelessness, lack of basic needs, and access to community supports. Through an extensive array of services, TOA provides opportunities for individuals to stabilize fragile situations and then works with them to achieve self-sufficiency. TOA has strong working relationships with system wide partners and providers including The City of Portland.

TOA's Project for Assistance in Transition of Homelessness (PATH) program is the beginning of services for unsheltered individuals with serious mental health and struggling with substance use, in our state's continuum of care. The PATH team's outreach and engagement component allows these individuals to build trust with a provider. Currently, the PATH team works closely with the Oxford Street Shelter to support individuals to access the shelter.

PATH will continue our collaboration with the new center, by continuing to provide outreach case management services in the community and encourage and support individuals who are interested in accessing the center.

The new center will allow our collaboration to strengthen, as it provides meeting spaces for PATH to work alongside center staff to initiate and complete applications for long term housing and other mainstream services.

Milestone

I am writing to share Milestone Recovery's plan to support the operations of the City of Portland's Homeless Services Center by offering on-site support services. Those services will include the regular presence of our Homeless Outreach and Mobile Engagement (HOME) Team both on the campus and to assist in providing transportation. In addition to the HOME Team supporting the Service Center, we are willing and able to offer our expertise around supporting people with substance use disorder (SUD) through sharing of resources and providing training.

We will continue engaging in coordinated and collaborative support for people that are unhoused and experiencing SUD. Milestone Recovery will also be able to offer group support and will explore offering treatment within the Service Center or engaging in facilitating access and transportation to community-based SUD treatment programming.Through collaboration with other community providers,we seek to support the needs of people who are unhoused through a holistic approach.

Shalom House

Shalom House will:

- Work with the Identified Individuals to provide assistance with housing, housing subsidies and to the extent permitted by funding, staffing, and all applicable state and federal guidelines, including program eligibility; and

- Communicate with the City and/or with the Identified Individuals any deficiencies in applications, issues with continuing required paperwork, and other issues that could jeopardize an Identified Individual's housing at the Homeless Services Center.

Portland Trails

Portland Trails is eager to partner with the City of Portland as well as the staff, service providers and folks who are receiving services at the Service Center. As a land manager of adjacent public conservation land and the trail system that provides both transportation and recreation opportunities for all community members, we will be part of the everyday experience of many service recipients. As a previously industrialized neighborhood invites more human activity, we want to engage in regular dialogue to ensure that transition is as smooth as possible for all.

II. Staffing and Management Responsibilities

Staffing Roles:

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three managers there will be on-site coverage 6am-11pm, as well as 24/7 on-call rotation. Having round-the-clock coverage affords clients the opportunity to connect with a member of the management team whenever desired. This level of access fosters an environment responsive to the needs of our clients.

The Shelter Director is responsible for supervisory and administrative work managing homeless shelters, supervising shelter attendants, security staff, housing counselors, senior human service counselors and managers. This work typically involves the development, planning, promotion, coordination and administration of Division programs. The Program Manager of a City Shelter is directly responsible for the operations and housing programs of the shelter. This position will be directly involved in budget development & management, personnel supervision, and development and implementation of various policies. Regular assessment of program plans and accomplishments will be reviewed in conjunction with the Social Services Division Director. The Director supervises a staff of professional, administrative and support staff, both directly and through designated supervisors. The Shelter Director participates in all grant application processes, program planning, and service evaluations including shelter audits. This position is responsible for meeting program reporting requirements, monitoring outcome measures and expenditures, compliance with all applicable federal and state regulations. The Shelter Director represents Shelter programs in the community, serves as a member of relevant committees, task forces, etc. The Director serves as liaison with community groups and individuals and neighbors regarding homeless issues. Additionally, the Director develops policies and procedures to support complex safety needs associated with homeless shelters.

The Assistant Director of Shelter Operations works a flexible schedule but primarily provides evening management coverage. The Assistant Director of Operations is an administrative management position responsible for oversight of overall shelter operations including

compliance and ADA regulations, purchasing, human resources management, and ensuring overall consistency for shelter operations. This position assists the Shelter Director with compliance of policies, procedures and regulations. In concert with the Shelter Director, this position oversees safety guidelines for facilities. This role is responsible for hiring shelter attendants, security guards and shelter supervisors in consultation with the Shelter Director. The Assistant Director of Operations must have knowledge of local homeless resources, staff supervision, crisis management, experience working with a diverse population including chronically homeless, mentally ill, physically disabled and substance addicted populations.

The Assistant Director of Housing Services works a flexible schedule but primarily provides daytime coverage. This is an administrative/management position responsible for coordinating housing and support services and will provide direct supervision to the Housing Service's Team. This position will be responsible for implementing established shelter policies regarding housing for all clients. This individual will maintain relationships with service providers and landlords that will help benefit our clients. The Assistant Director of Housing Services is responsible for connecting shelter consumers to needed services, including but not limited to mental health, substance use services, and employment services. The Assistant Director of Housing Services must have experience with housing search and placement and a strong understanding of HUD best practices, the ability to communicate effectively and the ability to provide excellent customer service.

In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage. Our supervisors, or Senior Human Service Counselors, will work flexible hours providing both day and overnight coverage to include weekends. They will supervise program staff in the uninterrupted operations of the shelter and are part of the team that facilitates orientation of new program staff. This position assists in staff scheduling and performance evaluations. They will serve as liaisons between community groups and members of the public regarding program issues. They will respond to crises including medical or mental health emergencies, and physical altercations or threats of violence. Senior Human Service Counselors will also provide housing orientation and housing triage to new clients.

The HSC will be staffed 24/7 by our Shelter Attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to every day operations and work a flexible schedule across 24 hours. They will assist new clients with orientation to the facility. Our shelter attendants must possess the experience and the ability to work with clients with mental health and substance use issues. Building on their experience, each Shelter Attendant receives training to provide the following knowledge, skills, and abilities: a working knowledge of shelter policies, procedures and best practices, as well as working knowledge of community resources. This equips shelter staff to support our clients and make the necessary referrals to our housing team, as well as referring to other community partners. With the new model, many referrals will occur on-site, including to the Federally Qualified Health Clinic.

The Homeless Services Center will have a team of dedicated Housing Counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. All of our

Housing Counselors have experience working with the homeless population, housing, mental health, substance use, and community outreach. They have knowledge of the principles and practices of case management/casework. Additionally, they must have working knowledge of mental health, substance use issues and homelessness.

The Homeless Services Center offers housing services to all clients accessing the service center and will have housing staff on-site 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[3]

A key part of our housing team is the Housing Retention Specialists. They connect with clients as they transition from the shelter. In support of the housing-first model, these specialists wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, which can include connecting to community meals. Housing Retention Specialists also work to make appropriate, supportive referrals to medical care and case management services. Our Housing Retention Specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for public reporting. The Administrative Assistant aids management with review of data before grant submissions. This position ensures accurate filing of incoming client intakes and nightly paperwork in accordance with state regulations. They assist in ordering appropriate supplies for the HSC. This person also works with management on specialized tasks, giving great attention to detail and a high level of accuracy.

Our Facilities Team is an integral part of ensuring that the space is a safe, clean and inviting environment for clients to access and staff to work. We have facilities staff on-site from 6am-2am. Our Facilities Team responds to all maintenance emergencies and works with all maintenance vendors to ensure our building and grounds are operating at peak condition. Facilities staff duties include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance as necessary, routine exterior maintenance, including snow removal, and other tasks as required. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

[3] NAEH. (2016, April 16). *Housing First.* End Homelessness. https://endhomelessness.org/resource/housing-first/

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security Staff will have an office located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security Staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. Security Staff are trained to address conflicts that arise on property or grounds and will assist HSC staff and Emergency First Responders in securing an area during an emergency. Security Staff must have strong and effective communication skills, including strong active listening skills and speaking skills as they will be communicating with clients, other staff, first responders and neighbors. Security team members must have excellent customer service skills. Additionally, security staff must have the ability to remain calm during unusual occurrences, disturbances, or other stressful situations.

The management team will meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For a full list please see **Exhibit 4**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Using this client-centered model, staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the Homeless Services Center. If guests need shelter after this program's hours the Homeless Services Center phone number and the after hours General Assistance number will be prominently displayed at the Prevention and Diversion Center, our contact information will be available through 2-1-1 and community outreach programs will have access to our 24-hour line for after hour admissions. Should a client call for assistance after hours, Homeless Services Center staff will provide transportation from the Prevention and Diversion Program to the Homeless Services Center.

The City of Portland does not turn anyone in an emergency of homelessness away. Clients accessing the shelter complete a housing-focused, strengths-based intake assessment, are assessed for symptoms of infectious disease (at which point appropriate medical referrals would be made) and after completion of an intake are assigned a bed.

The Homeless Services Center will continue the City's current model of providing 24 hour continuous services to our clients. Unlike the City's current shelter, clients will have ample room to move throughout the facility, allowing for the space to remain clean, safe and sanitized while not restricting individuals to small areas. Following the lessons learned from the Expo shelter, City staff feel it is best practice to ensure that we have an open facility with clear site lines where clients can have access to services on-site. Clients will have the ability to utilize laundry facilities and shower facilities as needed. On-site meals will be available three times a day, understanding that many of our clients are busy seeking housing or are employed and may miss meal times, staff will ensure clients have access to food outside of those meals. Mail services will be provided on-site to ensure their ability to receive important documents that are imperative to housing: state identification, birth certificates, etc. In addition, clients will have access to their assigned beds throughout the day.

It is important to the City that all clients entering the Homeless Services Center feel comfortable in their sleeping areas. HUD's Equal Access Rule protects the rights of transgender and gender non-conforming people by mandating that "access to shelter and housing must conform with, and adhere to, an individual's self expressed gender identity." [4]. Homeless Services Center staff ask individuals to self-select their dormitory based on their self-identified gender. For individuals who do not feel safe or comfortable sleeping in the men's or the women's dormitories, the City will provide separate sleeping space. Self-identified trans, nonbinary and gender-diverse clients are informed that they can request this accommodation. In addition, the Homeless Services Center will include nine restrooms for clients and three in staff areas which are barrier free, fully accessible and designated gender neutral in addition to the larger restroom facilities.

The new facility will also have an expansive outdoor space-allowing clients to safely gather in a number of private areas. Clients will have access to an enclosed courtyard just off the general dayspace- part of this courtyard will have a covered pavilion for eating space, meeting with community providers and housing workers or social gathering. Additionally, the private courtyard will have exercise facilities and raised garden beds so that clients can participate in growing food for the meals. A green space with a raised platform area will be available for client use. In addition to the raised garden beds, a healing garden will be located on the other side of the facility. This will be a space for quiet reflection, small groups or meetings with community providers and housing staff.

The programmed outdoor spaces detailed above will be fenced. This will be to maintain site control and provide a higher level of protection to those seeking emergency shelter. We will work to ensure this fencing design fits in with the trauma informed design of the property. We will also continue to seek feedback from our neighbors as, and if, operational issues relating to fencing arise.

The security staff will be responsible for monitoring entry and exit into the building, as well as the perimeter entrance and exits via video surveillance. This will leave our front desk staff

[4] NAEH. (n.d.). *Trans and Gender Non-Conforming Homelessness*. End Homelessness. https://endhomelessness.org/trans-and-gender-non-conforming-homelessness/

available to respond to the needs of clients and service providers. The access points to the building include:

- *The primary building entry off Riverside Street*- The HSC's main entryway will be off the well lit and inviting walking path leading from Riverside Street to the HSC. The main doorway will be a dual door system monitored by security staff. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on-site.
- *Controlled External Entrance to locker facilities*- Located in tandem to the primary entrance, clients may first enter the external locker facility. There will be enough on-site locker storage for each client accessing the Homeless Service Center. Clients will have the ability to access their own storage space as needed. This space will exit into the dual door vestibule.
- *Controlled Staff entrance and exit*- These entrances will lead to staff administrative and housing offices, space for community providers to hold confidential meetings with clients, as well as conference room space for on-site lease signings or small trainings.
- *Clinic entrance*- The clinic will be a space that is open to the general community. Clinic staff will have the ability to admit any patient they may be treating.
- *Controlled exit from the dayspace to the private courtyard with covered eating space, controlled exit from the male dormitory to the community garden, controlled exit from the female dormitory to the community garden*- These three exits will be accessible only to individuals who are already accessing the facility and will lead to fenced in areas that provide privacy, confidentiality and safety our clients.
- *Controlled fire exits off dormitories and client bathrooms*- a mandatory number of fire exits that meet the necessary fire code requirements will be located along the rear of the building. These will be accessed in emergency situations and will be accessible for entry to those who have already accessed this facility when needed.
- *Loading and service area*- the secure loading and service area off of the kitchen and dining area will be utilized for food and donation deliveries, as well as pick up of dirty linens and the drop off of clean linens through the City's partnership with the Barron Center. We anticipate food deliveries to occur three times daily, in line with our three meals a day. We also anticipate a daily morning laundry pick up and drop off and will be receiving weekly deliveries for service center supplies.

In accordance with the Americans with Disabilities Act and Chapter 5 of the City of Portland Code of Ordinances, service animals are always welcome and are required to remain on a leash or harness at all times. Pets and other animals, however, are not allowed. We recognize the positive impact and importance companion animals have in the lives of the clients who present with them as well as the barrier to entering shelter their interdiction presents. To mitigate this barrier and improve the experience and housing success of our clients, whenever possible we work with community partners to attempt to find their animals alternative accommodations for the duration of their stay in shelter. This includes collaborating with the animal control officer, leveraging their relationships with local programs and rehousing individuals with their animals as soon as possible.

IV. Transportation

The Homeless Services Center will employ a Transportation Demand Management (TDM) approach to handle client transportation needs. Because most clients are not anticipated to drive, TDM is important beyond its traditional goals of simply reducing vehicle trips. The facility's TDM plan is included as **Exhibit 5**. Some additional points and summary information are below.

The Homeless Services Center will include a City operated 15 passenger van as a shuttle service to clients. The shuttle will operate with regular scheduled trips throughout the day to stop at service centers for appointments as well as get back to the facility, and will include after hours operation on an as needed basis. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize.

As a safety policy, staff operate the shuttle or any City vehicle, in pairs while transporting clients. This allows for the driver to remain fully focused on the safe operation of the vehicle should the passenger staff need to assess a client in medical distress or help to de-escalate any situation in the vehicle. It also allows the passenger to safely assess the vehicle inhabitants and engage with them so that nothing rises to this level of need. For individuals departing directly from the Homeless Services Center our staff will have developed relationships with these clients. They will be aware of whether these individuals are appropriate to transport via the shuttle or may require an alternate form of transport at that time. They will also be able to assess whether some clients may have previous conflicts that might indicate they should be transported separately. For individuals coming from the Prevention and Diversion Center, a safety assessment will be done with all individuals prior to transporting them. Any staff person driving the 15 passenger van must receive training from the City's Safety and Training Officer that includes safe driving practices specific to vans. As a Covid precaution the van and other city vehicles have partitions that have been installed for safety.

In addition to the shuttle van, the Homeless Services Center will continue the long-standing practices of Oxford Street by using taxi vouchers, Metro, and our current sport utility vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the Homeless Services Center will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The Homeless Services Center premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Best practice dictates clear sight lines which will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring

area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

HSC staff will provide once daily checks of the trail system adjacent to the property. Staff will also coordinate with Portland Trails and will participate in their weekly walk of that section of trail.

Cameras will be mounted externally for easy surveillance of the perimeter. Cameras are also mounted in internal common spaces not to include private areas, such as sleeping quarters and restrooms. Camera monitors will be visible from the security office, which will be staffed. Our security staff will review live feed of the cameras and we will also have access to recorded data as needed. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations. This will be reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire Homeless Services Center population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. In addition, all workstations are equipped with panic alarms for any potential emergency. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The Homeless Services Center presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed design impacts client success as well as the neighboring community. This Homeless Services Center was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the

safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 7**). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding good neighbor relations at intake. As stated in the above section *Controls for Client Behavior and Noise Levels*, we feel it is important to provide clients clear expectations of the Homeless Service Center Rules at intake. This ensures clients are aware of the expectations for their behavior while utilizing the HSC and clearly outlines the rules in place to provide safety to clients, staff and the neighborhood. Additionally, we have a Neighborhood Engagement Strategy (please see **Exhibit 8**) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect the Homeless Services Center surroundings, the neighborhood and meet any neighborhood needs or concerns.

The following steps are taken to ensure guests of the HSC are informed and engaged around the rules and expectations of our facility:

- Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations, including the importance of being a good neighbor.
- The Homeless Service Center Staff hold regular house meetings to cover a variety of topics including reinforcement of important shelter rules and guidelines and the importance of being a good neighbor.
- Supervisors and staff meet multiple times daily for "shift change" meetings to pass along critical information, such as any client who may have an important housing appointment they need connecting to, a client who may be struggling due to ongoing mental or physical health concerns, or neighborhood concern that has been relayed that needs ongoing monitoring.
- If needed, staff will meet with clients on an individual basis to address concerns in a proactive manner and work to connect clients with any helpful resources such as but not limited to Cumberland County Crisis through The Opportunity Alliance, Detox and

substance use services, Adult Protective Services, First Responder Services of Portland Medics, Police and Fire and Greater Portland Healths onsite services.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As such, when neighborhood concerns arise, staff take immediate action to resolve the concern. Homeless Service Center staff are committed to working with clients, neighbors, businesses, and community partners until an issue has been resolved.

Mechanisms to resolve neighborhood complaints include, but are not limited to:

- Half-hour perimeter checks of our facility, grounds and surrounding areas, this will include as needed checks of the Portland Trail System.
- As mentioned previously, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. In addition, this will include as-needed, but in any event no less than daily, checks of the Portland Trails System.
- The Homeless Services Center staff will provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. Concerned neighbors are invited to call to discuss any potential issue or concern related to the Homeless Services Center. All calls will be logged and tracked.
- Additionally, The Homeless Service Center will have a member of the management team on call 24/7 to assist in resolving any issue. This allows for swift notification to managers of any neighborhood issue or concern.
- While neighborhood complaints could involve a discussion and staff intervention with a small group or single client of the Homeless Services Center, occasionally larger interventions will include our committed community partners listed in this management plan. Staff may also request assistance from:
    - The HOME Team
    - TOA Crisis Response Team
    - Police Department
    - MEDCU and Fire Department
- Once addressed, a supervisor of the Homeless Services Center will make a return call to the neighbor in order to confirm resolution.
- Calls will be tracked and logged and reviewed monthly at the neighborhood advisory committee meeting.
- The Homeless Services Center staff is happy to meet with all partners and neighbors to ensure a sense of positive community, overall wellbeing and safety.
- The Homeless Services Center will provide a representative to a minimum of 75% of regularly scheduled monthly Neighborhood Association meetings and looks forward to feedback from our neighbors at these meetings.

The City will also create an advisory group consisting of representatives from the neighborhood association, neighborhood residents, area businesses, Portland Police Department, Homeless Service Center staff, Homeless Service Center clients, the District

Attorney's office, Portland Trails and the District 5 City Councilor or his/her designee.[5] Specific members of the Neighborhood Advisory Committee will be identified and finalized before the end of construction of the Homeless Services Center.

For the first year, the Neighborhood Advisory Committee will meet monthly and will be chaired by a representative of the City's executive staff. The group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts and/or improve client services. This group will also provide the review of the Neighborhood Engagement Strategy. Minutes will be recorded and maintained for a 24 month period at the Homeless Service Center and will be made available for review by interested parties. These minutes will reflect specific recommendations of the advisory group and will be annotated to reflect whether these recommendations have been implemented. Upon agreement of the majority of group members, the advisory panel will shift to quarterly meetings in year two.

IX. Monitoring:

The Homeless Services Center management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee, and various housing related boards and committees of the City, such as, but not limited to, the Rent Board and the Housing and Economic Development Committee.

[5] Sauschuck, M. J. (2018, September 8). *Security Planning and Procedures for Proposed Homeless Service Center.* Portland Maine. https://www.portlandmaine.gov/DocumentCenter/View/22367/HSC-Memo

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly and those will be posted on the ESAC webpage which are linked from the City's webpage. Additionally, we post weekly updated data and statistics to the City of Portland Health and Human Services website.

This management plan may be subject to periodic updating and review. As with all elements of an approved plan, proposed changes to the approval require amendments. In the event that changes to the management plan are needed, Health and Human Service Staff shall submit to the Department of Planning & urban Development any proposed amendments to this management plan and the Department of Planning and Urban Development will determine whether such changes qualify as a major amendment, and therefore subject to review and approval by the Planning Board, or whether they qualify as a minor amendment, and may be reviewed and approved by the Planning Authority.

Exhibit 1: Overview of the Process to Replace the Oxford Street Shelter

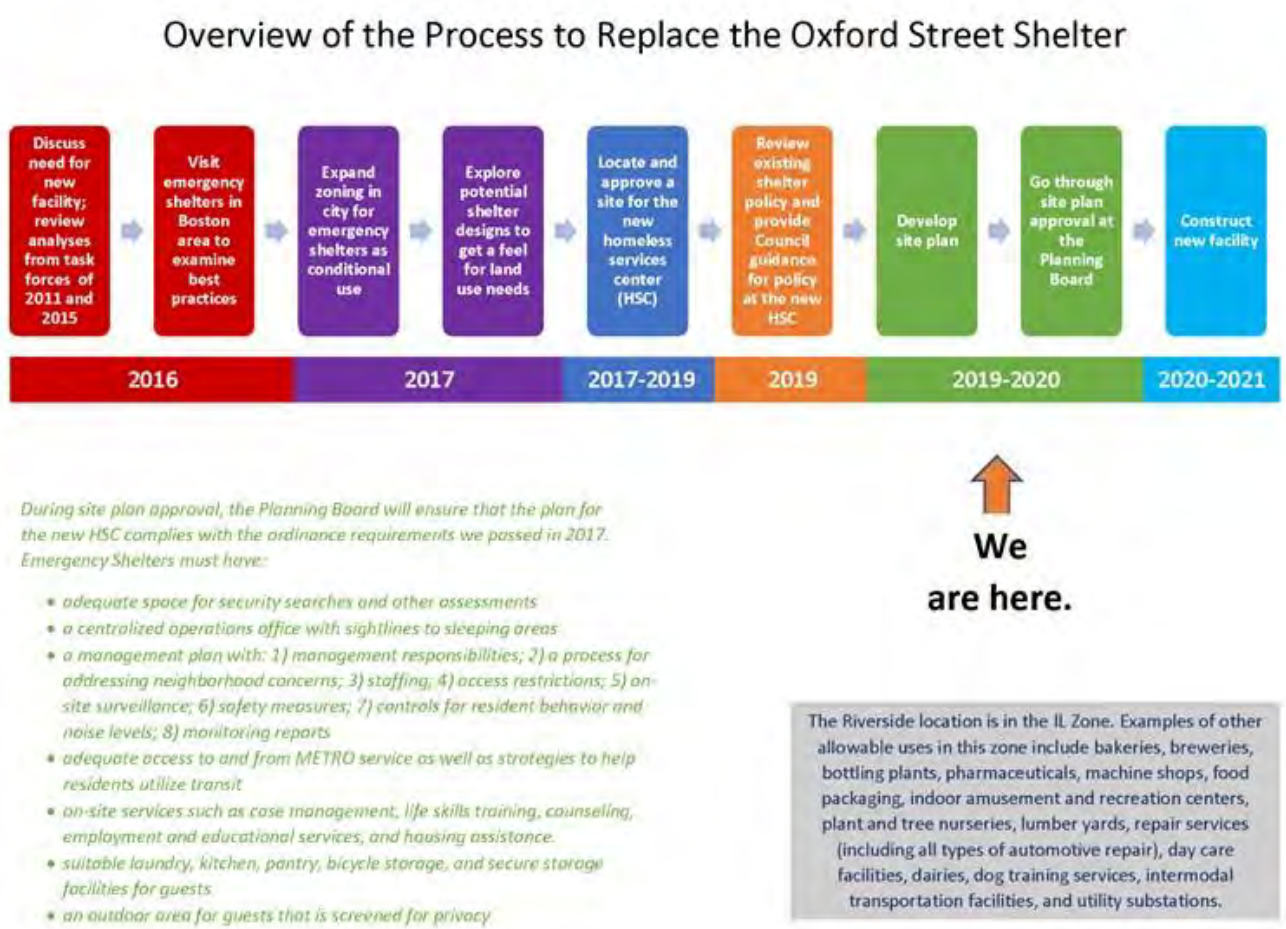

Exhibit 2: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Metro Route 2
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Mail services
- Meals
- On-site health care clinic
    - Primary Medical care
    - Infectious Disease Services
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services
    - Peer support groups

Exhibit 3: Service Providers Planning to Offer Services or Outreach On-Site[6]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - The Public Health Division
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[6] This list appears in alphanumeric order.

Exhibit 4: Staff Training and Professional Development[7]

- **Bloodborne Pathogens training**
  OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure
  Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting HIV, Hepatitis C, or other bloodborne diseases
- **Cardiac Science: AED**
  The Automated External Defibrillator (AED) training teaches basic AED rescue skills and correct defibrillation procedures.
- **Customer Service Training**
  Through this customized training, you will have the opportunity to explore the City's vision, goals, and values and how they relate to a culture of excellent customer service, learn about our new customer service vision, renew your commitment to customer service, learn best practices, reinforce the structures already in place that support great customer service, and identify the things you need to improve customer service.
- **Diversity and Inclusion Workshop**
  The City of Portland is committed to an inclusive workplace in which differences are respected and valued. Portland's demographics are rapidly changing and, by extension, so are our employee, visitor, and customer populations. During this interactive, two-hour workshop, participants will increase their awareness of personal biases - both explicit and implicit - and how they impact the way in which we navigate the world; explore practical, proactive strategies for responding to acts of bias and prejudice; and examine strategies to promote respect for diversity, equity and inclusion within the City.
  https://implicit.harvard.edu/implicit/takeatest.html
  Implicit Association Tests are online tests designed to explore our hidden or implicit biases, aimed to detect the strength of a person's automatic associations between concepts(e.g. women, homosexuals) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). You will be asked to sort pictures and words into groups as fast as you can. IATs evaluate automatic associations on many different topics such as race, religion, gender, sexual orientation, and weight
- **Emergency Action Plan training**
  Helps train employees on what to do in an emergency whether it's a fire, flood or an active shooter. The City has a predetermined emergency action plan to assist employees in knowing what to do in these different emergency situations. The training goes through the plan.
- **Equal Access to Housing training by GLAD**
  This training covers ways you can create a more welcoming and safer environment for LGBTQ persons. Learn the basic concepts and expectations of the HUD Equal Access to Housing rules and what rights are covered under this rule for individuals regardless of their sexual orientation and in accordance with the individual's gender identity, and in a manner that affords equal access to the individual's family.

[7] This list appears in alphanumeric order.

- **First Aid and CPR**
  Providing basic first aid, CPR and knowledge to assist guests until EMS arrives.
- **General Assistance Training**
  An overview of the General Assistance Program and the nuances that impact securing housing for individuals experiencing homelessness.
- **Homeless Management Information Systems trainings**
  -Maine Housing Emergency Shelter and Housing Assistance Program
  -Stability Through Employment Program
  -Rent Smart
  -Data & Security
- **Housing Training for Supervisors**
  An ongoing overview of housing assistance, voucher programs, general assistance, community resources and ways to keep conversations in shelter housing and solutions focused.
- **Human Trafficking in Maine: Identification and Response by Preble Street and Maine Coalition Against Sexual Assault**
  Understand the problem of human trafficking. Learn how to identify survivors of human trafficking. Learn how to meet the needs of people who have been trafficked.
- **In their Shoes Refugee Training**
  This is an interactive simulation provided by Catholic Charities Refugee and Immigration Services. The program is designed to help participants walk in the shoes of a refugee and come to understand the tough decisions faced by someone fleeing for safety.
- **Introduction to Cultural Competency**
  This interactive class explores the various cultures that we inhabit and steps that we can take to become more culturally competent. Cultural competency - the ability to understand, communicate with, and effectively interact with people across various cultures- is a lifelong journey and a skill essential to succeeding in today's culturally-diverse work environment.
- **Language Access Training**
  In this one-hour training, we cover how to identify a Limited English Proficiency individual; the distinctions between interpretation and translation; how to access and best utilize an interpreter; and translation of departments' vital documents. City staff who routinely interact with members of the public are expected to attend.
- **Mental Health First Aid Training Conducted by NAMI Maine**
  Mental Health First Aid is a national best-practice, evidenced-based certification course that is 8 hours in length and leads to a 3 year certification issued by the National Council on Behavioral Health.
- **Military Culture 101**
  A program designed to educate service providers on Military culture and resources Veterans can access.
- **Narcan/Overdose Reversal/Response Training**
  The Public Health Division provides best practice training on recognizing and responding to an overdose, on an as-needed basis, at the request of shelter staff. This training includes: risk factors, prevention strategies, signs and symptoms, and appropriate response, including calling 911 and administering Narcan. In addition to training, the Public Health Division provides Narcan at no cost to the Shelter.
- **National Alliance to End Homelessness Conference & Capitol Hill Day**

The 2019 National Conference on Ending Homelessness and Capitol Hill Day was the nation's largest convening of service providers, leaders, advocates, and consumers working to end homelessness in the United States. The July conference featured dedicated tracks focused on families and youth experiencing homelessness, updated content on chronic homelessness, veterans, single adults, and other populations. Capitol Hill Day offered an opportunity to speak with members of Congress and their staff and advocate directly for the resources that will benefit homeless families, individuals and youth in your districts.[8]

- **New Employee Orientation**
  For all newly hired employees, a New Employee Safety Orientation online training is required to be completed by new hires through our Maine Municipal Association website, NEOgov. This training covers the following safety issues: Accidents and Emergencies, Fire Safety, Preventing Slips, Trips and Falls, Back Safety, Ergonomics for the Office, Personal Protective Equipment, Hazard Communication, Bloodborne Pathogens, Defensive Driving and Equipment Safety.
  In addition, the following City policies are reviewed with new hires within the first 4-6 weeks of their employment: Equal Employment Opportunity and Nondiscrimination Policy, Policy against Harassment, Workplace Conduct Policy, Drug Free Workplace Policy, Work Related Injury Management, Technology Use Policy, and our Communication and Social Media Policy. New hires are provided an overview of policies via a powerpoint presentation either in person or at the employee's discretion (new protocol during response to COVID pandemic).
- **New Per Diem Training**
  Conducted with all new employees, this training is an overview that covers a broad range of topics including customer service, review of shelter policies and safety, emergency response (how to call for assistance in an emergency, how to communicate to dispatch, use of your two way radio), overdose reversal and use of naloxone, scenario training (which can include how to de-escalate a client in distress, use of progressive discipline, etc).
- **Rapid Resolution Housing Training**
  Rapid resolution is a client-centered, problem-solving approach designed to meet the housing stability needs of most persons seeking homeless assistance.
  Client-centered—with a focus on the client's agency in resolving his or her own housing crisis; Flexible–all available housing options are creatively explored through a problem solving conversation; and Immediate–providers recognize a critical window of opportunity to act swiftly to resolve the housing crisis.
- **Reasonable Suspicion for Supervisors**
  This training is to assist when supervisors have evidence or reasonable cause to suspect an employee of drug use. This is needed for the supervisor to know how to follow proper protocols and documentation.
- **Serious Accident Reporting**
  This training defines "serious physical injuries" and the steps to take when reporting to the Maine Department of lAbor is necessary as outlined in the City policy "City of Portland Mandatory Reporting Requirements for Employee On-the-Job Death

[8] "Conferences" *National Alliance to End Homelessness* https://endhomelessness.org/events/conferences/

or Serious Injury Standard Operating Procedure."

- **Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health**
  Trauma-informed care recognizes the physical, mental, behavioral, social and emotional impacts of the experience. Tese training covers core principles and explains Adverse childhood experiences (ACEs) which are stressful or traumatic experiences that happen during the first 18 years of life.
- **Understanding and Supporting LGBTQ Individuals**
  Provides attendees the opportunity to learn more about what it means to be part of the LGBTQ community with special attention given to understanding what it means to be transgender, non binary, and gender non conforming. The presentation will address ways in which City of Portland staff can be more inclusive in their day-to-day work by using inclusive language and terminology, navigating names and pronouns, processing forms and documents, and implementing smart practices to use to make your workspace more inclusive of everyone.
- **Verbal Judo**
  Provides staff with de-escalation techniques through verbal communication to avoid further conflict with individuals including redirection strategies, ultimately decreasing resistance. The goal of the course is to enhance professionalism, decrease community complaints, decrease liability, lessen stress and increase morale for guests employees.
- **Violence Against Women Act training by Through These Doors**
  Provides an overview of the Maine Coalition to End Domestic Violence, the individual resource centers serving Maine and the services offered, presents *Violence Against Women Act overview: "What is VAWA? Who is protected? What programs are impacted?"* and reviews housing protections for survivors and the responsibilities for housing providers.
- **Workers Compensation for Supervisors**
  Explains the procedure for referral to partner urgent care providers and reporting requirements when staff are injured while performing their duties.

Exhibit 5: Transportation Demand Management Plan

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Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street – Portland, Maine
Revised August 31, 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile[1] of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[2]
- Sight lines in each direction at driveway exceed 500 feet[3]
- Driveway separation – 176 feet4
- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 – 16892) yields 14 crashes and Critical Rate Factor (CRF) of 0.785. Riverside Street at the site driveway is not a High Accident Location.

[1] Measure from Forest Ave outbound Transit stop to the proposed door is 2,340 LF or 0.44 mile
[2] MDOT AADT information – Riverside St N/O Warren Avenue
[3] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.
[4] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.
[5] From MDOT for period 01/01/2018 to 12/31/2020

- Collision data for the Intersection of Forest Ave and Riverside Street (Node 16892) yields 41 accidents from 01/01/2018 to 12/31/2020. The intersection is considered a high crash location with a CRF of 1.17. The majority of accidents result from vehicles following too close and driver inattention on the Forest/Route 302 inbound leg and on the Riverside northbound leg. Accidents do not appear to be related to pedestrian crosswalk movements.
- Collision data for Forest Avenue from the Riverside Intersection to the Riverton Drive (nodes 16892 to 18508) yields 5 accidents. This location is not identified as a high accident location. Safety measures at the Transit stop crosswalk include a recently installed Rectangular Rapid Flashing Beacon (RRFB) assembly that is push button activated to signal vehicular traffic of crossing pedestrian movements. The project has also committed to wayfinding strategies to include signage and pavement markings to clearly identify the safe walking route for Shelter users from the transit stops to the Shelter.
- Street lighting from the Forest Ave transit stops to the shelter includes a cobra head light over the outbound transit stop and a streetlight on the NW corner of the Riverside intersection. On Riverside Street there are several pole mounted cobra head streetlights. At least four utility poles are available for additional streetlights if necessary to improve lighting over the proposed 6' wide sidewalk on the west side of the street. Additional lighting will be discussed with the City DPW and CMP.
- Nearby Peak hour traffic volumes are summarized as follows:[6]

TABLE 1
TRIP GENERATION

Site	Traffic Count AM Peak Hour (6:30 – 7:30 am)	Traffic Count PM Peak hour (3:45 – 4:45 pm)	ITE[7] AM Peak Trips	ITE PM Peak Trips
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1,229**	**1,652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 6' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These existing bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding

[6] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)
[7] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;
- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals. There are basically 30 runs from METRO Pulse outbound beginning at 5:45 am and ending at 10:40 pm. The Route 2 alternates hourly service to the Hannaford Street on Riverside and to Prides Corner which does reduce overall service to Westbrook and points west. Saturday service is decreased with 16 outbound runs beginning at 6:20 am and ending at 9:40 pm. Sunday service includes 8 runs from 8:20 am to 3:20 pm.

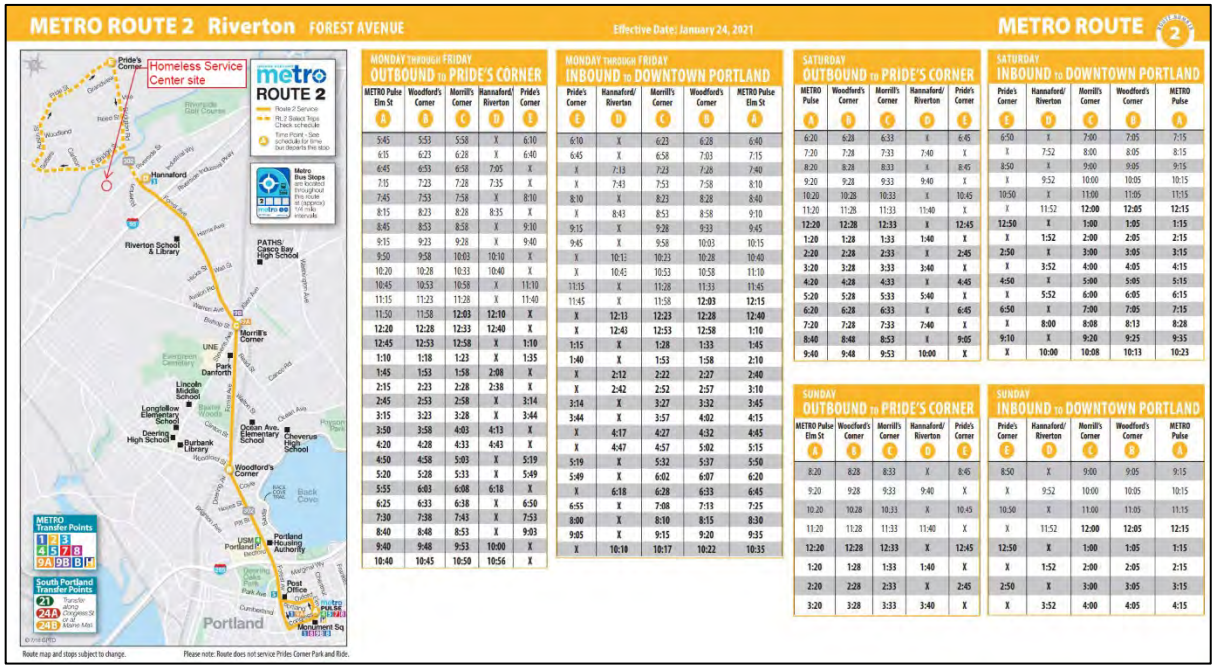


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

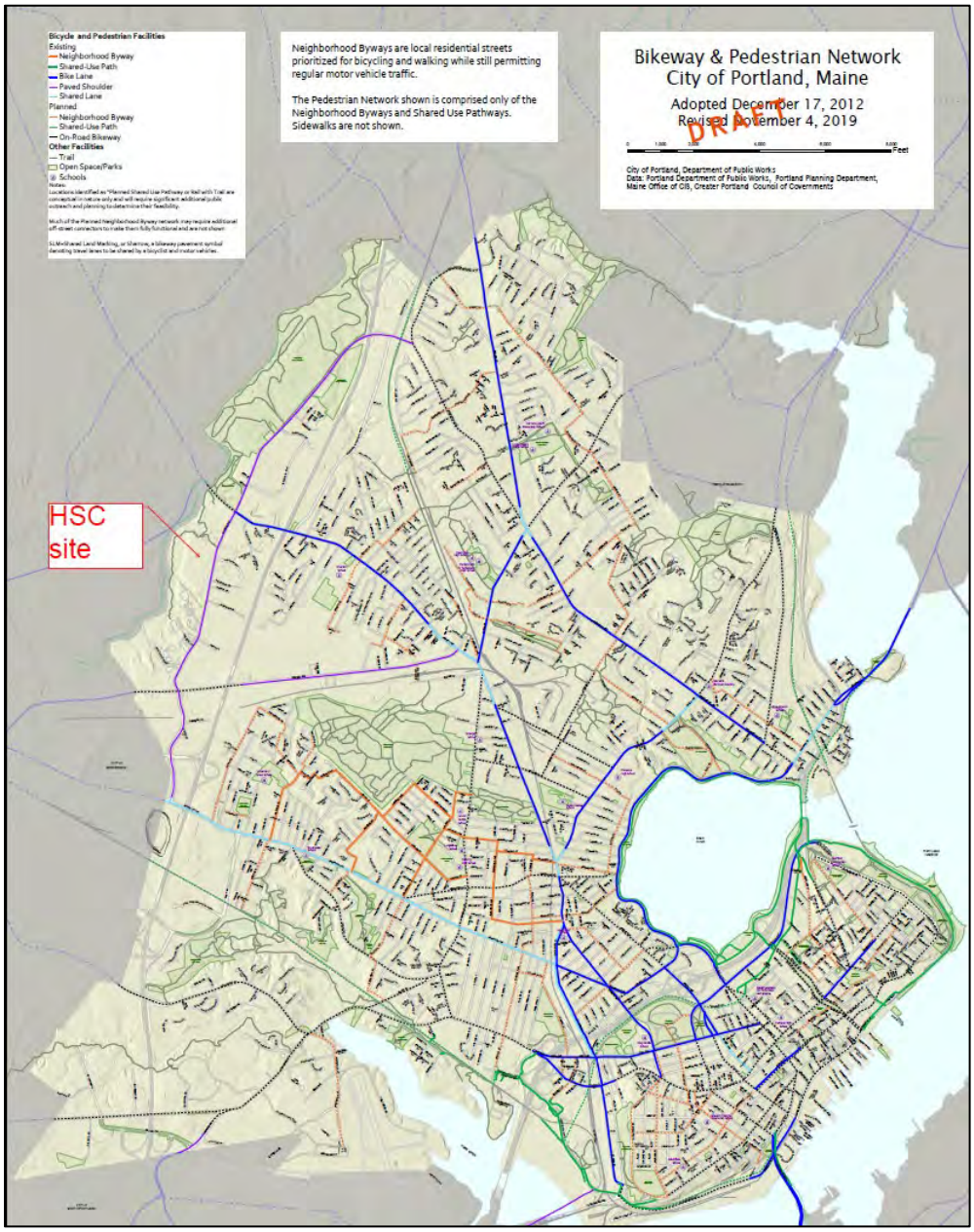


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hour staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however, in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered. A target period of 3 years is set and will be re-evaluated as part of the annual reviews.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN

Agency/Position	Number of Anticipated Vehicles	Time-in	Time-out
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

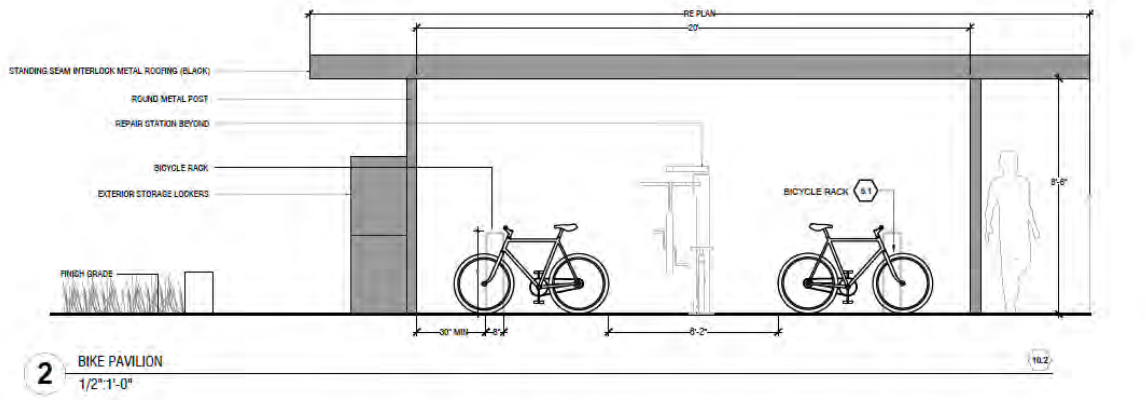
Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.4 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. Currently free bus passes are offered to shelter guests. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Signal improvements will include the implementation of Leading Pedestrian Interval or Blank out signs to prohibit vehicular right turn conflicts with pedestrian crossing movements. Wayfinding signage will be provided at bus stops and along Forest Avenue and Riverside Street to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order. A new bus shelter[8] is proposed for the Inbound transit stop at the Riverton Drive location.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion as detailed as follows:

[8] Per city staff a private fuel station development on Forest Ave is responsible to install the new bus shelter.



The development activity will result in the construction of a new 6' wide City standard paved sidewalk from the Forest Avenue intersection to the site entrance as well as 12' wide paved entry sidewalk into the site. Pedestrian Signal improvements at the Forest Ave/Riverside intersection will be performed for safety and coordination with the existing traffic signals. A restriction on right turns off Forest Ave onto Riverside will be implemented during crossing phases to minimize conflicts with vehicles and pedestrians.

The operators will prioritize the availability of information to guests to include bicycle and walking information. Equipment will be made available to guests to include reflective material for clothing, bicycles and carts. The operator will consider partnership opportunities with support organizations for such things as bike repair training.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; At least 2 spaces closest to the building will be designated for ride share parking; The TDM Coordinator will query staff participants for other possible perks that may interest them that might include gift certificates or similar rewards for promoting and participating in the TDM;
- Implement a ride share registry to match employees interested in ride share;
- Employees are encouraged to bike or walk as part of the City's Wellness Program that offers discounts as part of the health coverage benefits package; and
- Continued participation in the annual Commuter Challenge events.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with staff and guests by acknowledging the challenges associated with TDM goals and objectives that may include lack of access for walking, biking, equipment, ample opportunity for access to transit or other aspects that just make it difficult for guests or staff to participate in TDM strategies. Understanding participant's views and challenges will help inform future modification and improvement to the TDM plan and this will be prioritized as part of the annual reporting.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips

using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

Exhibit 6: Resident Contract

GUEST CONTRACT

The Homeless Services Center is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our facility. Any violations of our safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the building or on the premises is strictly prohibited and could be grounds for restriction from access.
- **Weapons of any kind are not allowed in the building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into the building or waiting areas. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access.**
- **Use of inappropriate speech can result in restriction of access. The City has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The City has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction to access.**
- Sexual activity of any kind is not permitted in the facility or on the grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the facility and on the grounds. This includes wearing shoes while moving around the facility to protect from injury.
- Out of respect for others, cell phones must be turned off or silenced after 8pm in the dorms. Guest phones are available for use. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**
- Electronic devices that do not emit light, are used with headphones and do not disturb other shelter guests may be permitted at the discretion of the supervisor on duty.
- The lights out in the dorms will be 8:30pm.
- Good personal hygiene is a priority. Showers are available with 24 hour access, personal hygiene items are available upon request from staff at the front desk.
- Guest laundry services are available, please see staff for any assistance needed.
- Clean blankets, towels and other linens will be provided.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- Lockers are available on-site. Please see a staff member to sign up. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- The City is not responsible for lost and stolen belongings. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Service Center ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests are expected to attend housing orientation the day following their intake to the service center for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please respect our neighbors and neighborhood at all times.

Agreements

- *I hereby accept shelter at the City of Portland Social Services Division Homeless Services Center and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.*
- *I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.*
- *I authorize the Social Services Division Homeless Service Center to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.*
- *I understand that Service Center Staff and/or management may restrict my access to the facility and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff and relating to staff at the Service Center.*

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 7: Reasonable Rules

HOMELESS SERVICES CENTER POLICY – REASONABLE RULES

The **Homeless Services Center (HSC)** is a City run facility for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in the City run facility. In addition, the City reserves the right to refuse admission to the HSC to any individual whose presence is determined by the City to pose a danger to other individuals residing in the HSC or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in the HSC facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to the facilities or property or neighborhood
- Smoking or vaping is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 8: Neighborhood Engagement Strategy

Homeless Services Center

Neighborhood Engagement Strategy

Staff of the **Homeless Services Center** are committed to maintaining a positive relationship with our surrounding neighbors through engagement and collaboration.

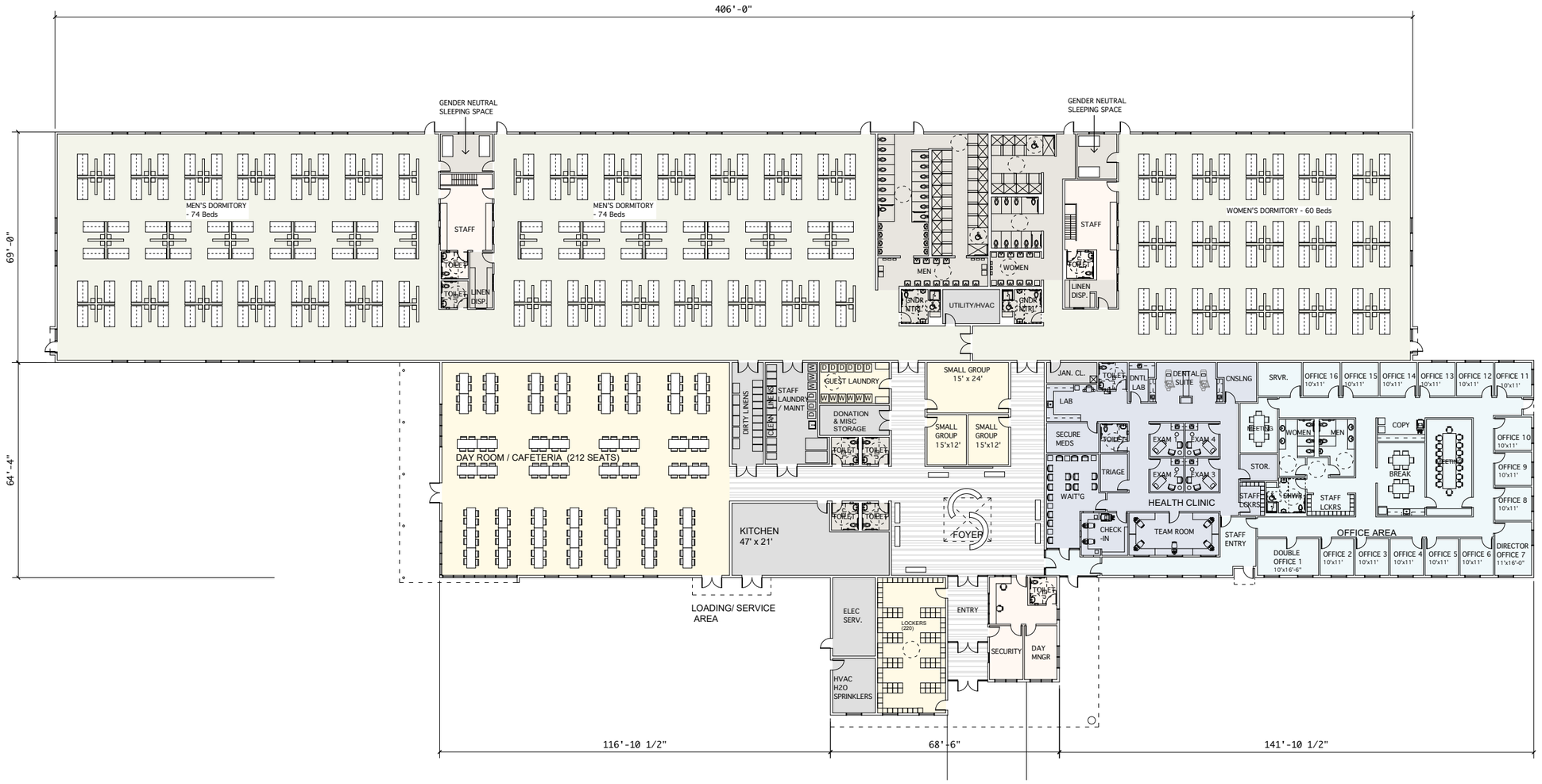
Staff build and maintain good relationships with both clients and neighbors and can assist in neighborhood issues as they arise. We work to ensure client behavior expectations are clear through regular Service Center meetings with clients. A recurring topic at these meetings will include having a positive impact on our neighboring community.

The HSC runs a 24-hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving guests along from a neighbor's front steps, etc. and can decrease police calls for service.

Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

The HSC offers ample locker storage to allow clients a place to leave their belongings while going on housing showings, job interviews, etc.

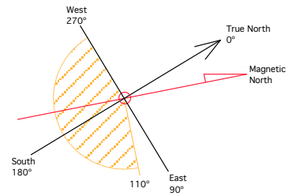
A representative of the HSC will attend a minimum of 75% of the monthly Riverton Community Association meetings.



FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



Winton Scott Architects

5 milk street, portland, maine 04101
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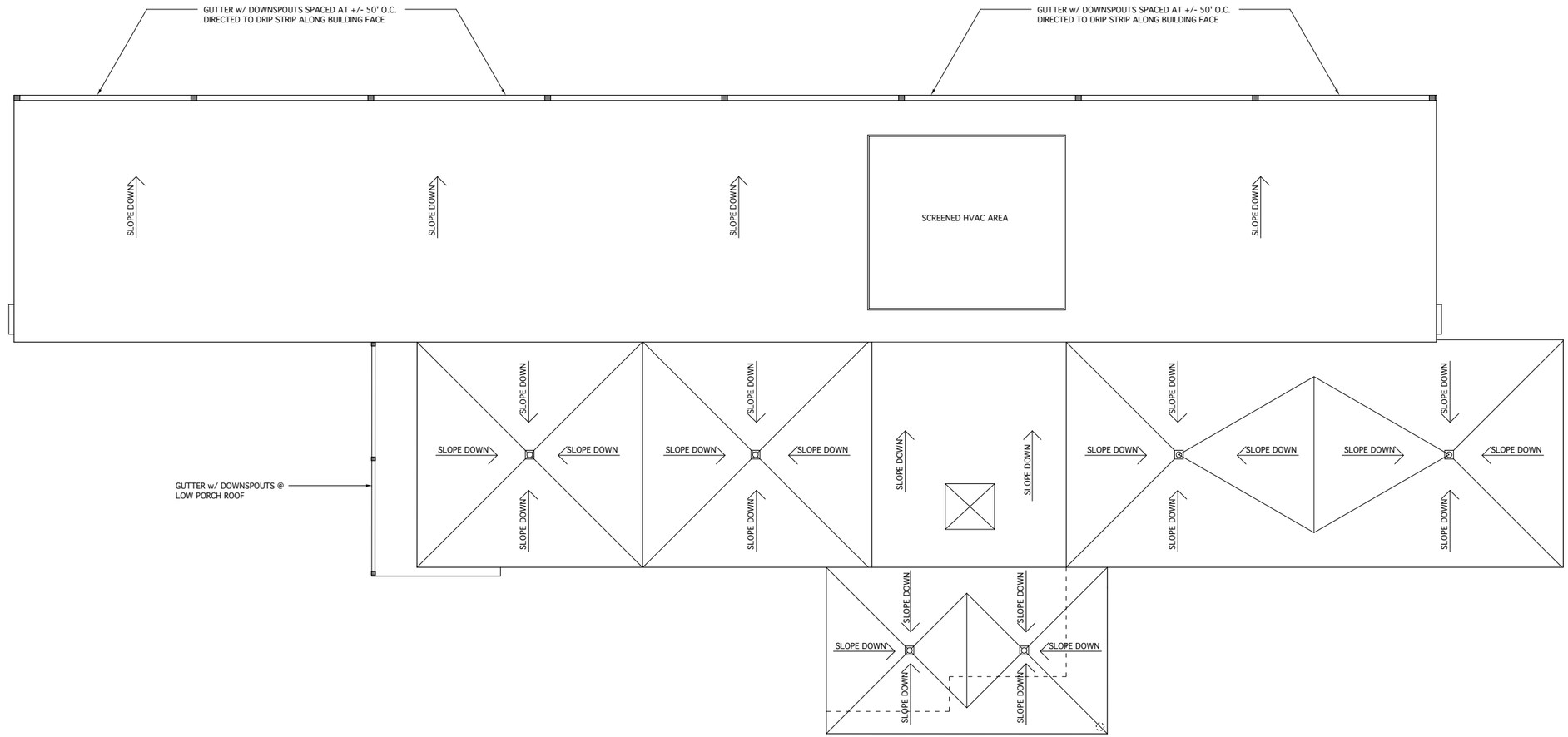

ROOF PLAN

SCALE: 1/16" = 1'-0"

WSA
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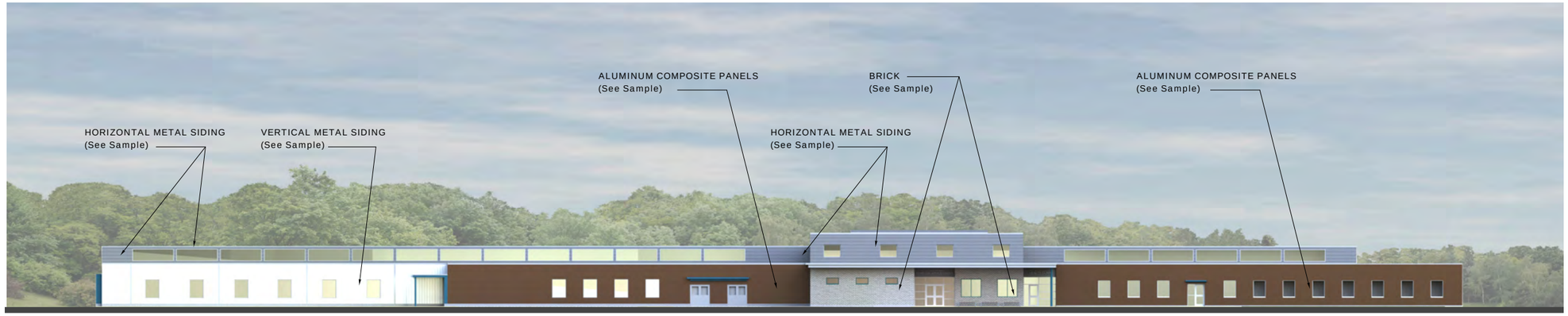
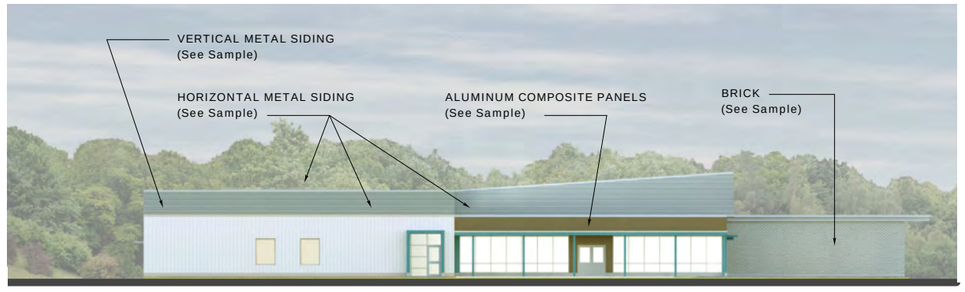
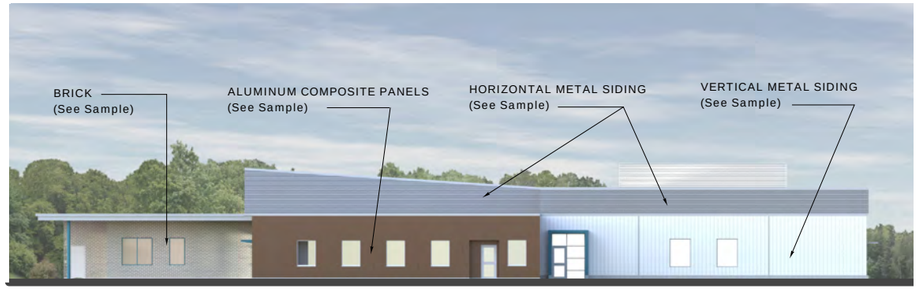


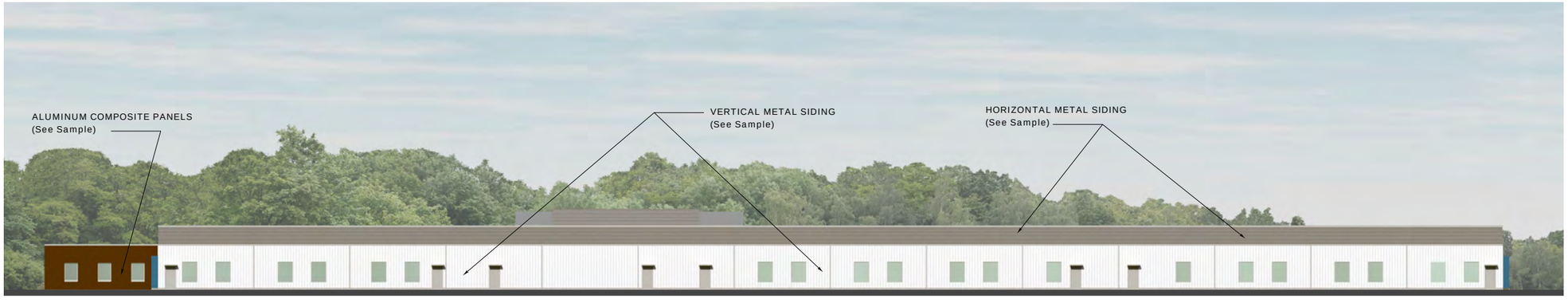
East Facade



South Facade



North Facade



West Facade

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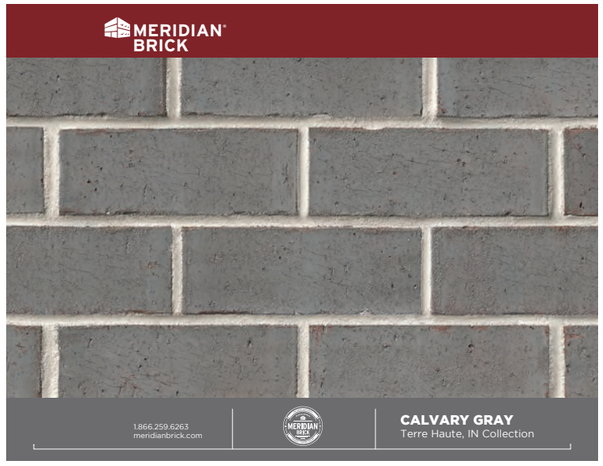
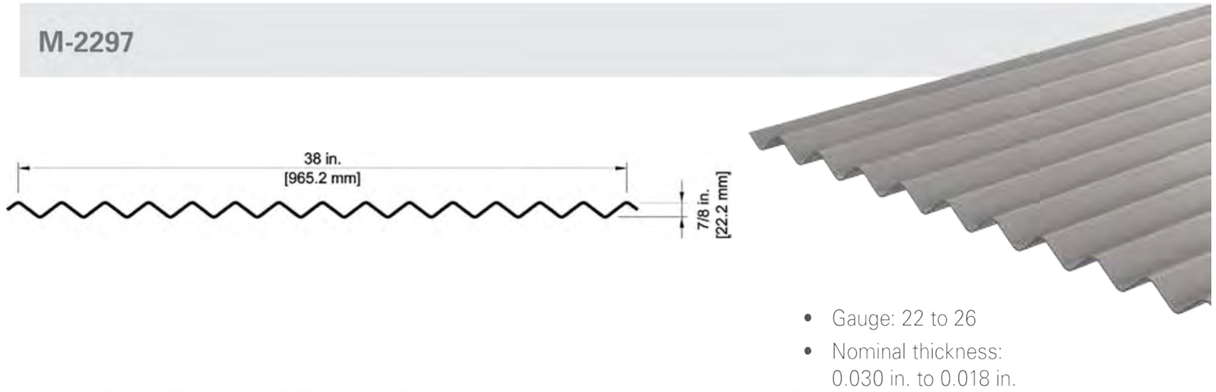


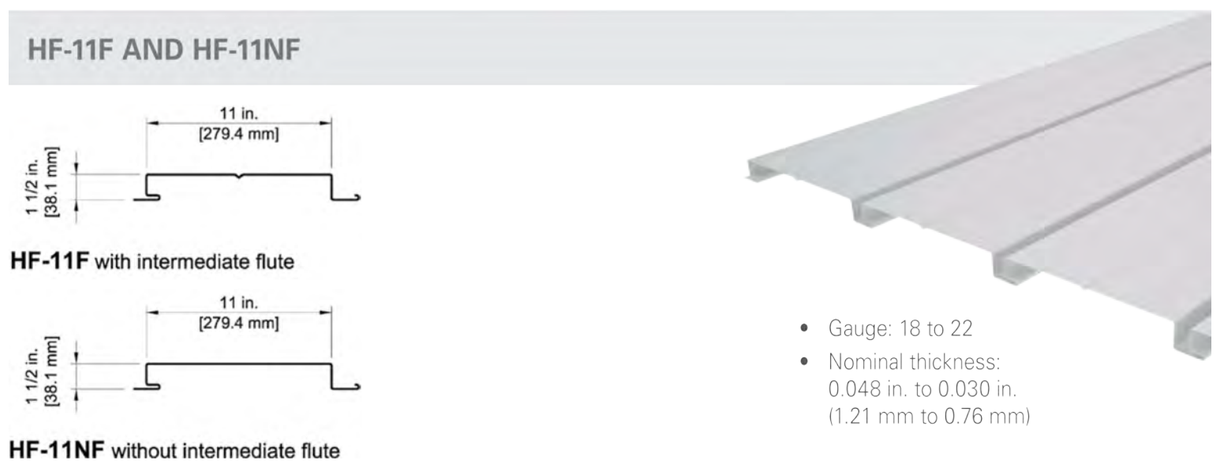
BRICK - Front Entrance Area



- Gauge: 22 to 26
- Nominal thickness: 0.030 in. to 0.018 in.

HORIZONTAL METAL SIDING - Upper portion of Dormitories and Walls at Central Gathering Space Sloped Roof. (Medium Gray)

ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



- Gauge: 18 to 22
- Nominal thickness: 0.048 in. to 0.030 in. (1.21 mm to 0.76 mm)

VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)

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Front Perspective

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Entrance Plaza

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Cafeteria / Dayroom Porch

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Main Gathering Space

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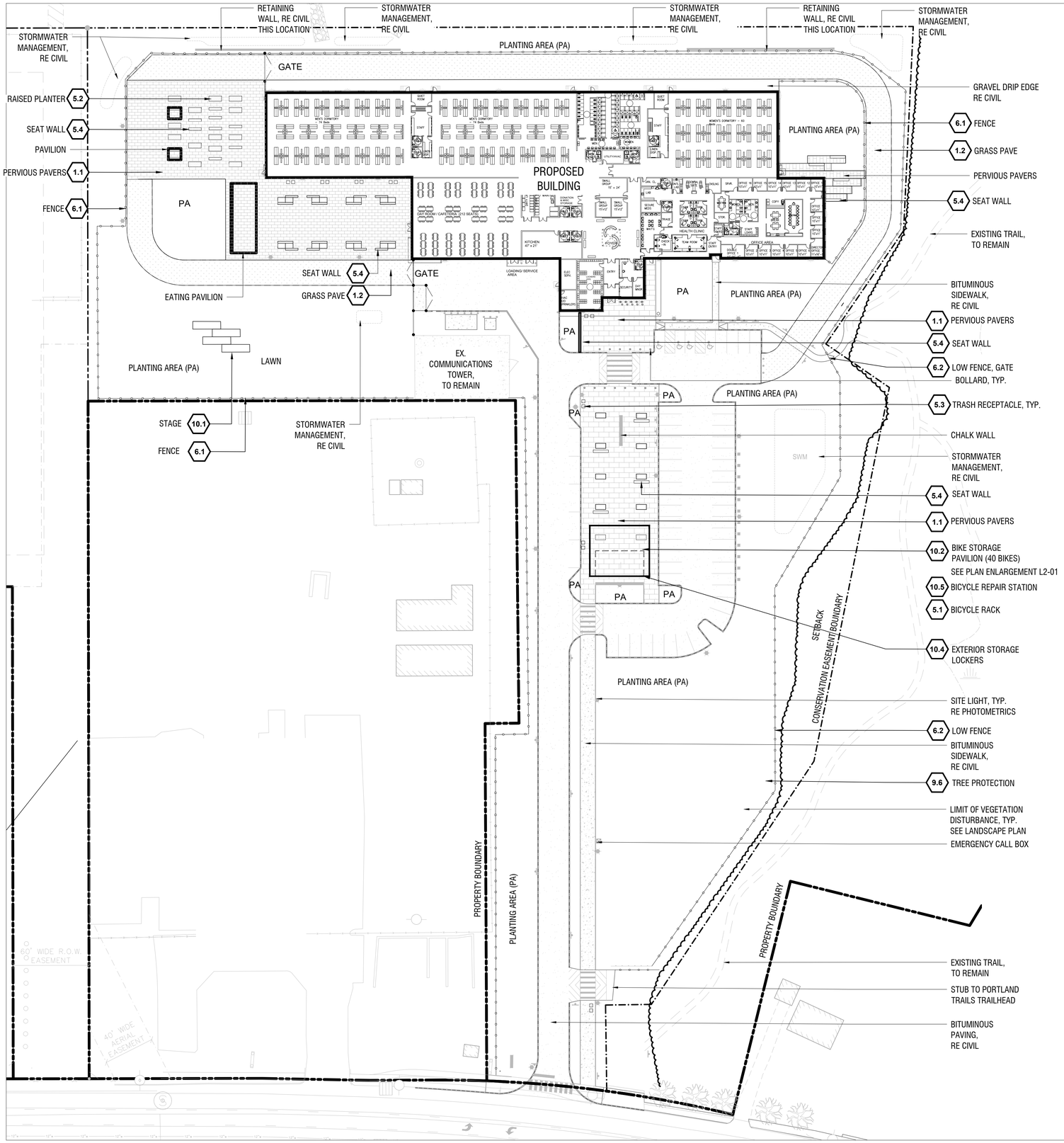


MATERIALS LEGEND

SYMBOL	
	HARDSCAPE; CONCRETE PAVERS A (SF TBD)
	HARDSCAPE; CONCRETE PAVERS B (SF TBD)
	BITUMINOUS PAVING (SF TBD)
	BITUMINOUS SIDEWALK (SF TBD)
	PERVIOUS PAVING (SF TBD)

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

OWNER:
DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

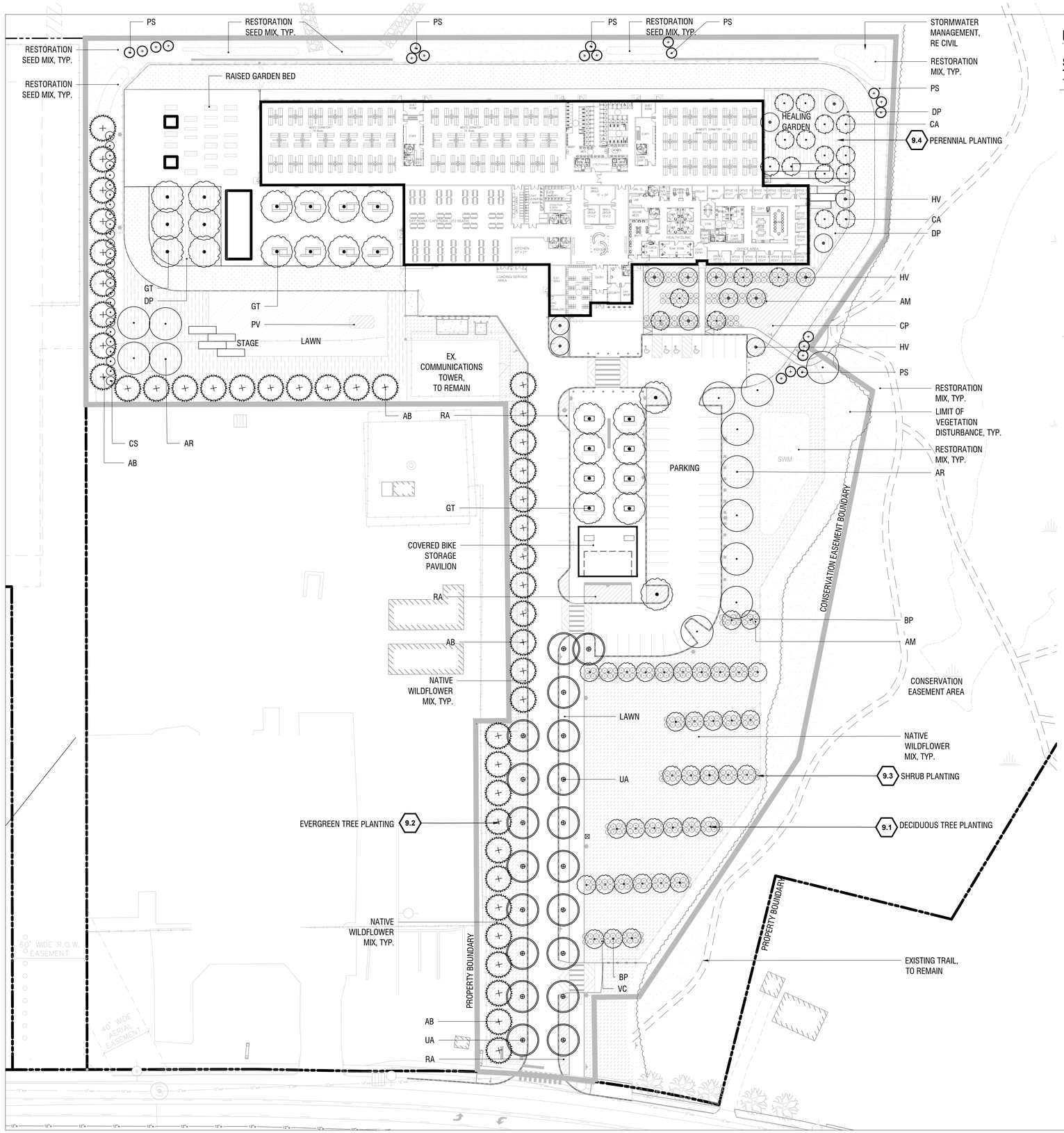
SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AR	ACER RUBRUM	RED MAPLE	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
	UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" MIN	PER PLAN
	PS	PINUS SEMBRA 'CHALET'	CHALET SWISS STONE PINE	TBD	3'-5' HEIGHT	PER PLAN
SHRUBS						
	CS	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
	AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	LOW BLACK CHOKEBERRY	TBD	TBD	PER PLAN
	RA	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	TBD	TBD	PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CP	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN
	MS	MISCANTHUS SINESIS	SILVER GRASS	TBD	TBD	PER PLAN
	PV	PANICUM VIRGATUM	SWITCHGRASS	TBD	TBD	PER PLAN
	PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX "
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

0 20 40 80

ACETO LANDSCAPE ARCHITECTS
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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

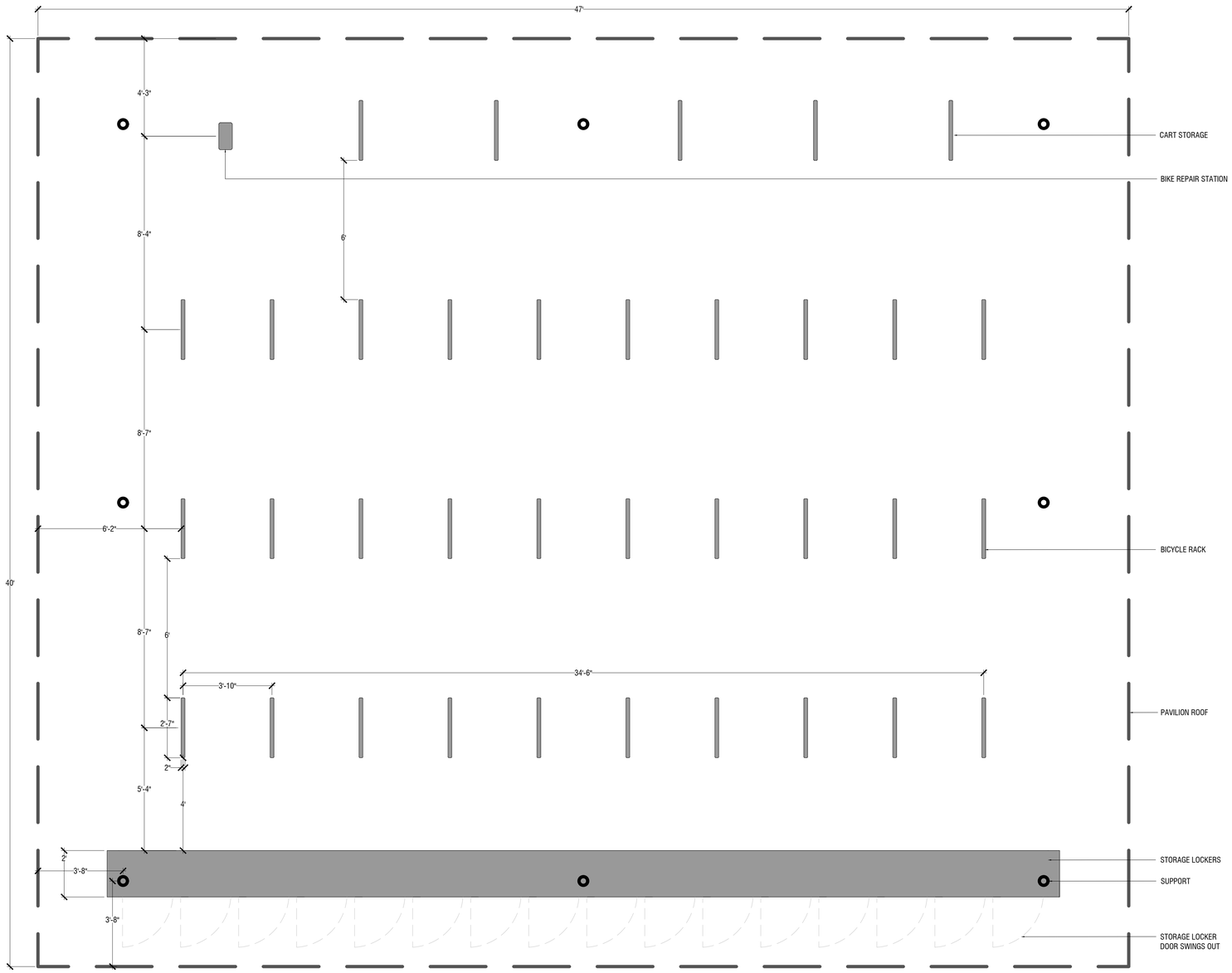
SHEET TITLE

LANDSCAPE PLAN

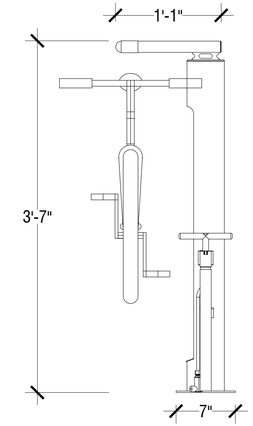
SHEET INFORMATION

L 2-00

NOT FOR CONSTRUCTION



1 BIKE PAVILION PLAN ENLARGEMENT 10.3
NTS



2 BIKE REPAIR STATION 10.5
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
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654 RIVERSIDE STREET
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CITY OF PORTLAND

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CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

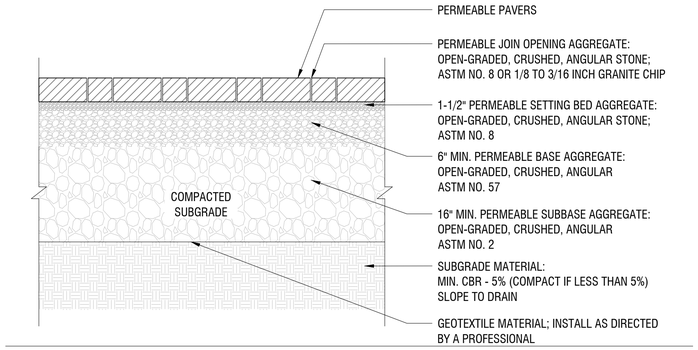
SHEET TITLE

LANDSCAPE
DETAILS

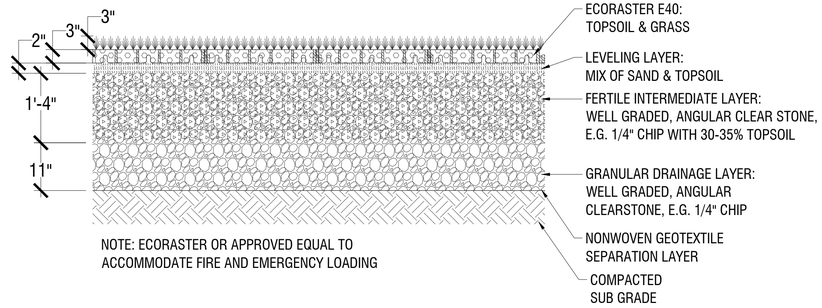
SHEET INFORMATION

L 2-01

NOT FOR CONSTRUCTION

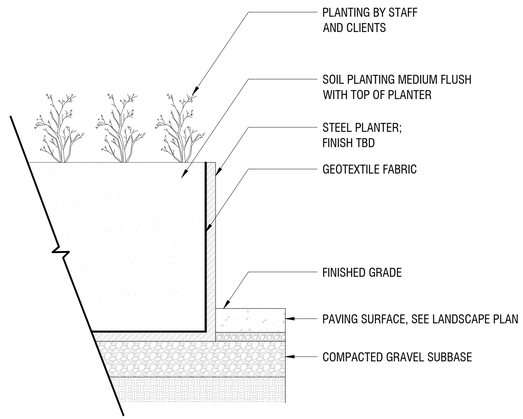


1 CONCRETE PAVERS - PERVIOUS
NTS

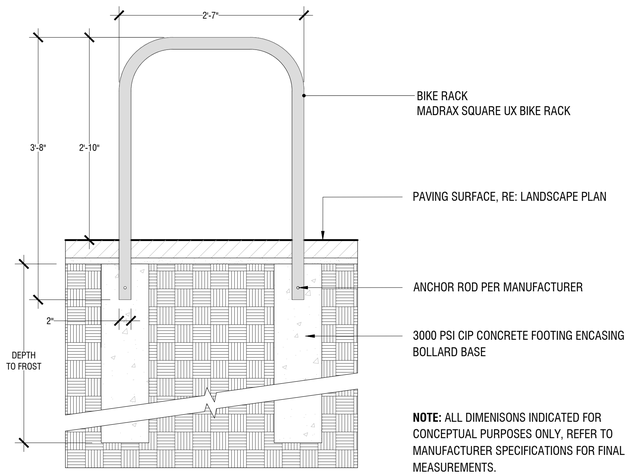


NOTE: ECORASTER OR APPROVED EQUAL TO
ACCOMMODATE FIRE AND EMERGENCY LOADING

2 GRASS PAVE
3/4"=1'-0"

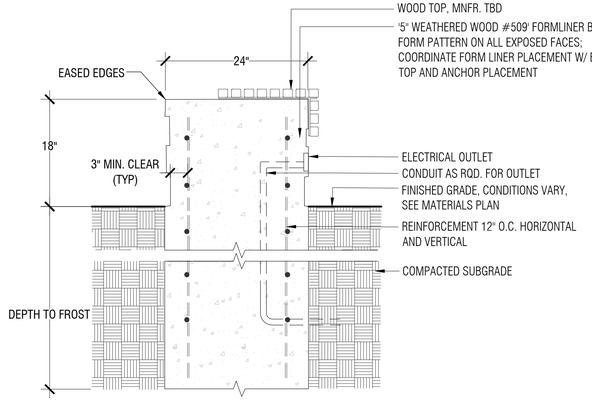


3 RAISED PLANTER
1":1'-0"

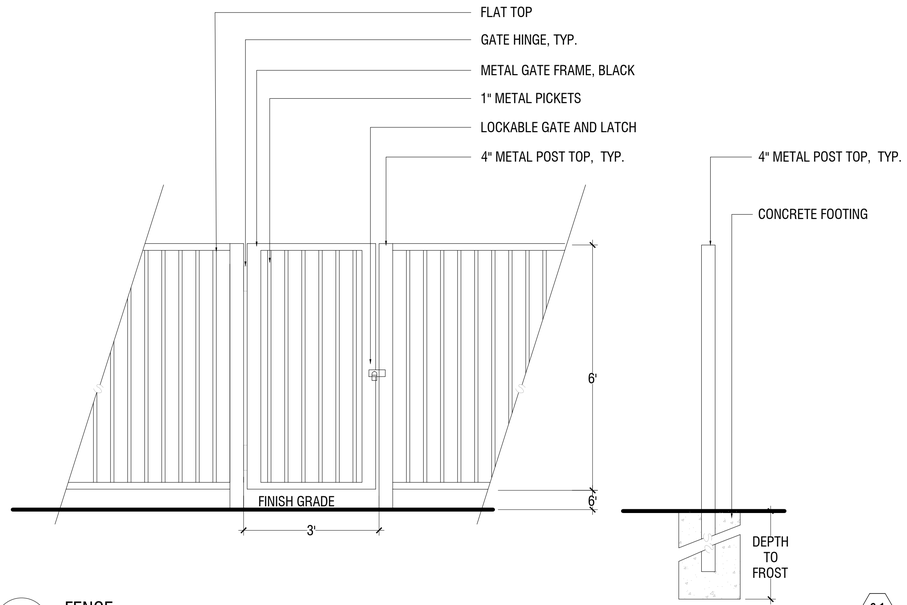


NOTE: ALL DIMENISONS INDICATED FOR CONCEPTUAL PURPOSES ONLY, REFER TO MANUFACTURER SPECIFICATIONS FOR FINAL MEASUREMENTS.

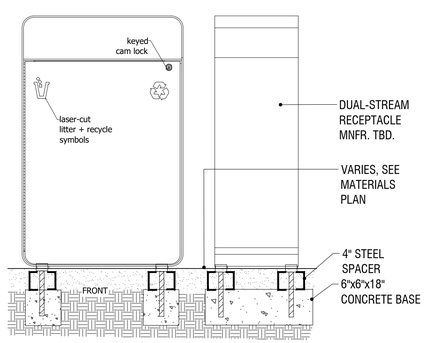
4 BICYCLE RACK
1":1'-0"



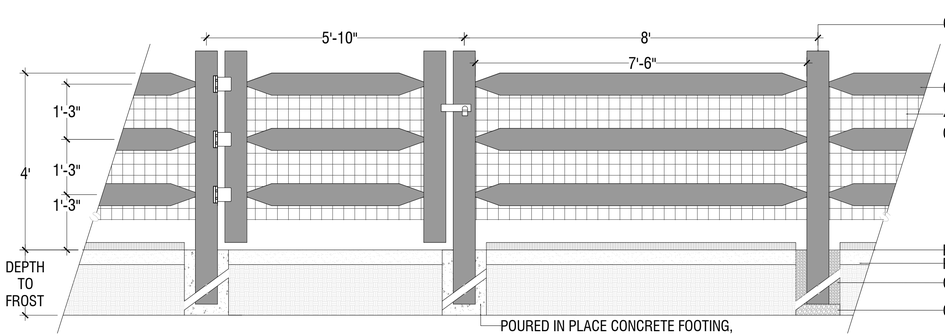
5 SEAT WALL
1":1'-0"



6 FENCE
NTS



7 TRASH RECEPTACLE
NTS



8 LOW FENCE
NTS

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00	
1.2	GRASS PAVE	2/L3-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
4.0	SITE WALLS/ EMBANKMENTS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
5.0	SITE FURNITURE		
5.1	BICYCLE RACK	4/L3-00	
5.2	RAISED PLANTER	3/L3-00	
5.3	TRASH RECEPTACLE	7/L3-00	
5.4	SEAT WALL	5/L3-00	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	FENCE	6/L3-00	
6.2	LOW FENCE	8/L3-00	
7.0	SITE LIGHTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L3-01	
9.2	EVERGREEN TREE PLANTING	2/L3-01	
9.3	SHRUB PLANTING	3/L3-01	
9.4	PERENNIAL PLANTING	4/L3-01	
9.5	STEEL EDGING	5/L3-01	
9.6	TREE PROTECTION	6/L3-01	
10.0	MISCELLANEOUS ELEMENTS		
10.1	STAGE	1/L3-02	
10.2	BIKE PAVILION	2/L3-02	
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03	
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02	
10.5	BIKE REPAIR STATION	2/L3-03	

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S
COLLABORATIVE AND
CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

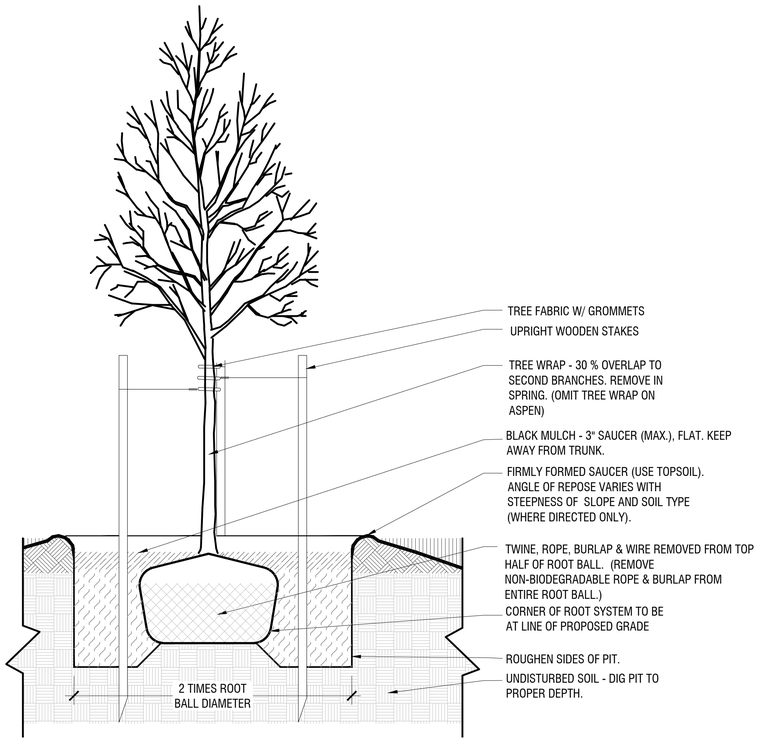
SHEET TITLE

LANDSCAPE
DETAILS

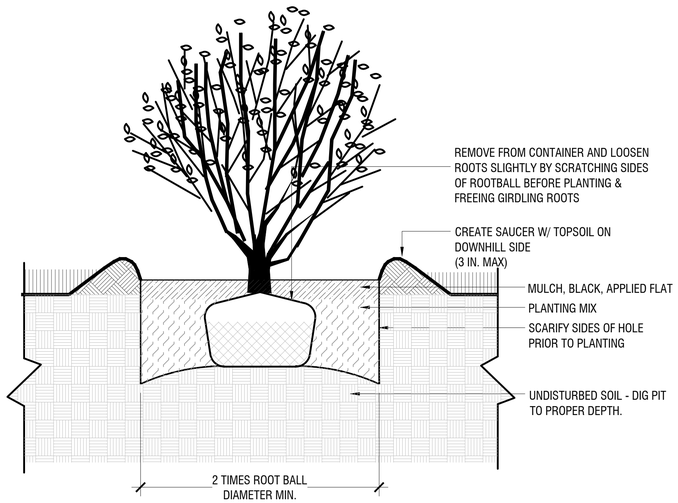
SHEET INFORMATION

L 3-00

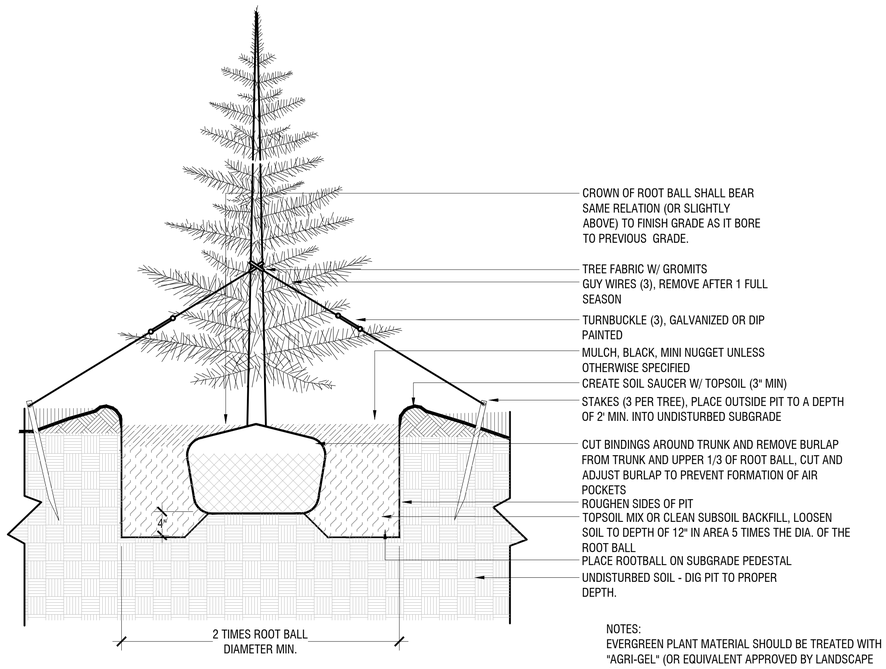
NOT FOR CONSTRUCTION



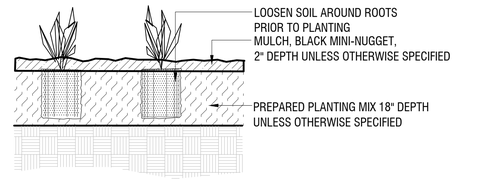
1 DECIDUOUS TREE PLANTING 9.1
1":1'-0"



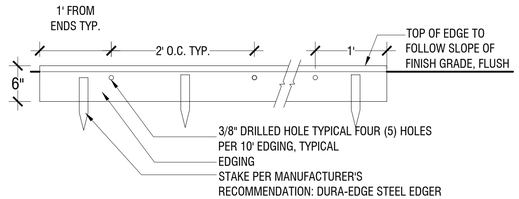
2 EVERGREEN TREE PLANTING 9.2
1":1'-0"



NOTES:
EVERGREEN PLANT MATERIAL SHOULD BE TREATED WITH "AGRI-GEL" (OR EQUIVALENT APPROVED BY LANDSCAPE ARCHITECT). DIP TREE ROOTS BEFORE PLANTING.



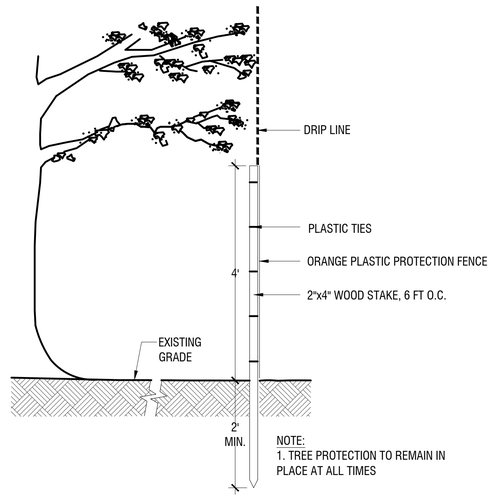
3 PERENNIAL & GROUND COVER PLANTING 9.4
1":1'-0"



4 STEEL LANDSCAPE BED EDGING 9.5
1":1'-0"

5 SHRUB PLANTING 9.3
1":1'-0"

6 TREE PROTECTION 9.6
N.T.S.



NOTE:
1. TREE PROTECTION TO REMAIN IN PLACE AT ALL TIMES

NOTES:
1. ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
2. TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
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SEAL

PROJECT TITLE
CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

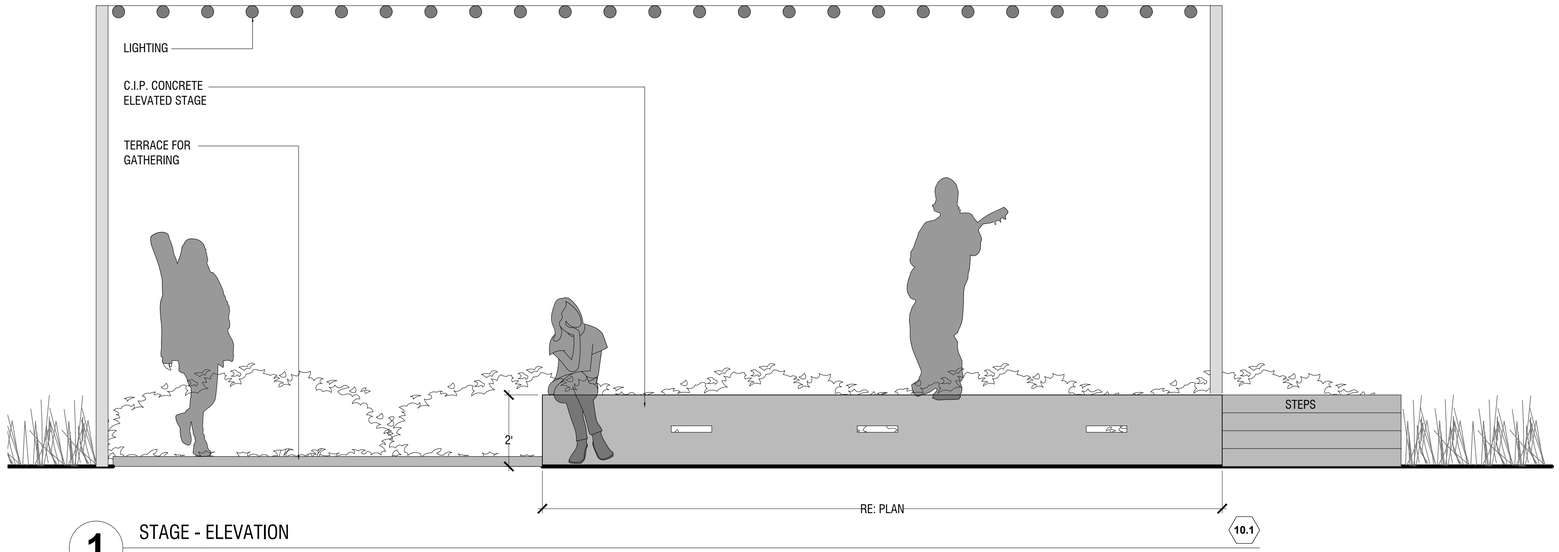
PREPARED FOR
DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

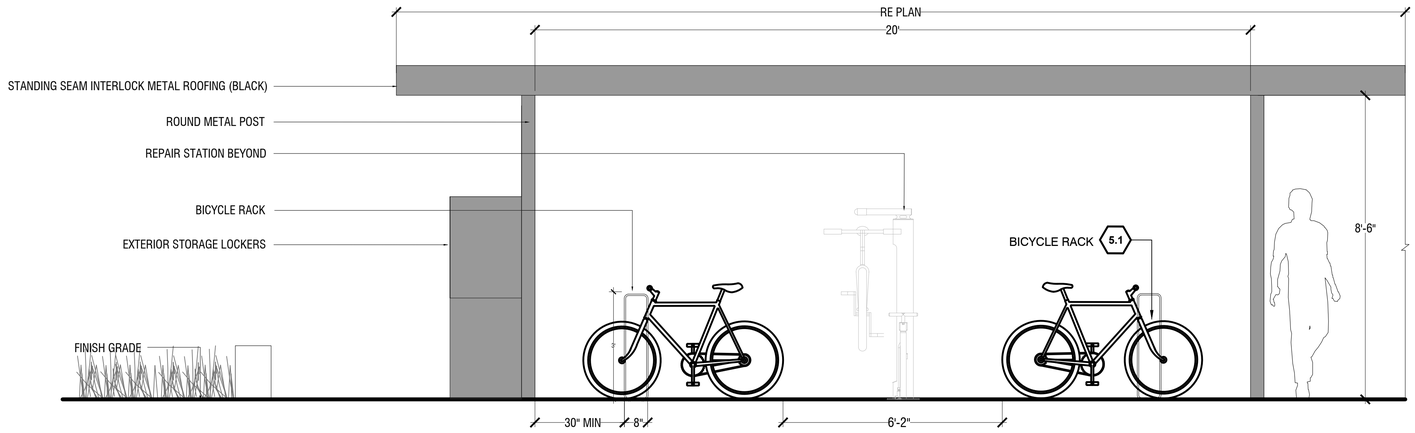
ISSUE DATE
AUGUST 31, 2021

SHEET TITLE
LANDSCAPE DETAILS

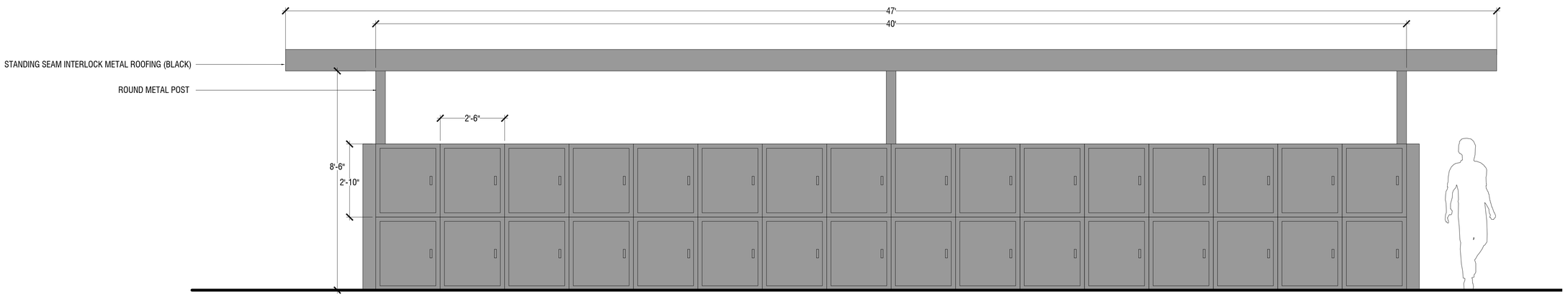
SHEET INFORMATION
L 3-01
NOT FOR CONSTRUCTION



1 STAGE - ELEVATION
1/2":1'-0"



2 BIKE PAVILION
1/2":1'-0"



3 EXTERIOR STORAGE LOCKERS
1/2":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
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	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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ISSUE DATE

AUGUST 31, 2021

SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-02

NOT FOR CONSTRUCTION

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

August 17, 2021

Ms. Celina Daniell
Gorrill-Palmer
707 Sable Oaks Drive
Suite 30
South Portland, ME 04106

Project: MHPC #1348-21 DC Predevelopment; City of Portland; 638 Riverside Street
Proposed Homeless Service Center

Town: Portland, ME

Dear Ms. Daniell:

In response to your recent request, I have reviewed the information received August 4, 2021 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

Based on the information submitted, I have concluded that there will be no historic properties (archaeological or architectural) affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act.

Please contact Megan Rideout at (207) 287-2992 or megan.m.rideout@maine.gov if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

PHONE: (207) 287-2132 FAX: (207) 287-2335

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

August 3, 2021

Celina Daniell
Gorrill-Palmer
707 Sable Oaks Drive, Suite 30
South Portland, ME 04106

Via email: cdaniell@gorrillpalmer.com

Re: Rare and exemplary botanical features in proximity to: #3824.01, Homeless Service Center, 638 Riverside Street, Portland, Maine

Dear Ms. Daniell:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received July 29, 2021 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Notice of Public Meeting Certification

I, Celina Daniell of Gorrill Palmer (Consultant), hereby certify that notices of Neighborhood Meeting and Planning Board Workshop signs were posted from July 16, 2021 to August 2, 2021 prior to the Neighborhood Meeting held on July 26, 2021 at 5:30 PM and the City of Portland Planning Board Workshop Hearing held on July 27, 2021 at 4:30 PM for the proposed project PL-001682-202 located at 638 Riverside Street. Photo documentation of sign in situ:

Signed,

Celina M. Daniell – Gorrill Palmer Consulting Engineers
July 20, 2021

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\G Abutters\Sign Certification\Sign Certification Homeless Center .docx

Relationships.
Responsiveness.
Results.

Delegated Review Authorization to the City of Portland for Homeless Service Center at 638 Riverside Street in Portland, ME

PREPARED FOR:
DC Predevelopment LLC &
City of Portland

July 2021

SUBMITTED BY:
Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, ME 04106
207.772.2515

July 23, 2021

Ms. Alison Sirois
MeDEP
312 Canco Road
Portland, Maine 04103

Subject: Homeless Service Center
638 Riverside Street
Delegated Review Authorization to the City of Portland
Applicant: DC Predevelopment LLC and City of Portland

Dear Alison:

On behalf of **DC Predevelopment LLC (Applicant) and the City of Portland (Co-applicant),** our office is pleased to provide the accompanying package of materials related to the proposed Homeless Service Center located at 638 Riverside Street in Portland. This submission package is intended to allow your consideration for the City of Portland Planning Authority delegated review of the site plans for the project under the Site Location of Development Act.

In accordance with the typical Site Location of Development application sections we offer the following abbreviated background by section. Further information is outlined in the accompanying materials that have been made part of the Level III Site plan application to the City.

Section 1 – Development Description

The applicant is proposing to construct a 51,624 SF Homeless Service Center with associated parking area for 28-30 vehicles. The existing 7.01+-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west. The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The proposed project will involve site work construction including building and foundation work, utilities construction including water, sewer, drainage, gas, power, and/or communications extensions into the buildings and landscaping. The proposed development will result in 3.44± acres of proposed impervious area. The site development will include stormwater management measures to satisfy the Chapter 500 Stormwater Management regulations including Basic Standards and General Standards. For additional information and background, please see the accompanying Cover Letter to the City in the Major Site Plan Submission material.

Section 2 – Title, Right or Interest

The City of Portland currently owns the property as evidenced in the deed recorded in CCRD Book 27825; page 68 attached to the Title, Right or Interest section of the Major Site Plan Application material. As outlined in City Council Order 281 – 20/21 the Portland City Council has authorized DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process.

Section 3 – Financial Capacity

See attached section made part of the City submission

Section 4 – Technical Ability

See attached section made part of the City submission

Section 5 – Noise

The development is classified as a minor noise generator. All HVAC equipment will meet the City's local noise standards for sound levels at the property line.

Section 6 – Visual Quality and Scenic Character

The site is not located in an area of significant visual quality or scenic character.

Section 7 – Wildlife and Fisheries

A letter has been sent to the Maine Fish & Wildlife and will be forwarded to your office upon receipt.

Section 8 – Historic Sites

A letter has been sent to the Maine Historic Preservation and will be forwarded to your office upon receipt.

Section 9 – Unusual Natural Areas

A letter has been sent to the Maine Natural Areas Program and will be forwarded to your office upon receipt.

Section 10 – Buffers

Various new tree plantings consisting of both evergreen and deciduous will be planted along the shared boundaries with the Lucas Tree Experts site and the Suburban Propane site, both located along the southerly sideline shared with those uses. See accompanying narratives that are part of the Major Site Plan submission. The City is the owner of the conservation land along the north and west sides of the property. The existing woods within these areas will remain as a permanent buffer to at least ½ the property perimeter.

Section 11 – Soils

A high intensity soil survey has not been performed for the site since the development will be served by public water and sewer utilities. A geotechnical investigation is currently being drafted by S.W. Cole which has found that the onsite soils have been found to be suitable to support the proposed development activity. Please see attached Stormwater Management Report for further information.

Section 12 – Stormwater Management

The stormwater management design will include measures to comply with the water quality treatment standards. A waiver is requested of the stormwater flooding standards since the site is directly tributary to the Presumpscot River, which is considered a major river.
The BMP's the applicant is proposing include:

- (5) Bioretention Filter BMP's
  - Four will be employed on the westerly (rear) of the site to treat are from the perimeter fire lane
  - One will be employed at the east side of the main parking field to treat runoff from the driveway and some portion of parking area.

- (2) Grassed Underdrained Soil Filter BMP's
  - One GUSF BMP will be employed in the southeast corner of the building to treat are from the east half of the building roof and some portion of fire lane and exterior gathering space
  - One GUSF will be located at the north side of the parking area to treat runoff from the main entrance/plaza area and some portion of the parking lot.

- (1) Roof Dripline Filter BMP
  - One drip edge filter BMP will be employed along the west end of the building to treat runoff from the west half of the building

- (3) Level Spreaders
  - Three level spreaders will be constructed around the perimeter of the site
  - All BMP's will discharge to the level spreaders or an existing closed drainage system which discharges to the west of the site.

Please see attached Stormwater Management Report for further information.

Section 13 – Urban Impaired Stream Submission

Not applicable – the site is tributary to the Presumpscot River.

Section 14 – Basic Standards

See accompanying Erosion Control details and narratives contained with the plan documents.

Section 15 – Groundwater

The development does not involve any new wells or onsite wastewater disposal. Groundwater is not expected to be encountered during construction as the observed groundwater depth is greater than 9' below grade. All stormwater management systems will be located with the bottom of the system at least 3' separated above the groundwater table.

Section 16 – Water Supply

The development will be served municipal water from the Portland Water District. The City of Portland requires a determination letter from the PWD, which will be supplied to them upon receipt.

Section 17 – Wastewater Disposal

The development will be served by municipal wastewater collection and conveyance and treatment at the Wastewater treatment plant. The City of Portland requires a wastewater capacity authorization from their DPW staff, which will be made part of their approval.

Section 18 – Solid Waste

The site will include a solid waste and recycling enclosure area for the placement of trash collection cannisters. A contracted waste hauler will be responsible for the removal of all waste on a routine basis.

Section 19 – Flooding

The development site is not located within a mapped flood area according to the City of Portland flood mapping.

Section 20 – Blasting

Not applicable to the project.

Section 21 – Air Emissions

The development will not result in any major sources of emissions including either point source or non-point sources. Any mechanical equipment including an emergency power generator will have exhaust that will comply with all local, state and federal limits.

Section 22 – Odors

The Development will not result in any major sources of odors as does not involve production, manufacturing or related odor sources.

Section 23 – Water Vapor

The development does not involve the large-scale emission of water vapor as it is not a processing plant or power generating facility.

Section 24 – Sunlight

The development will not block access to direct sunlight for structures utilizing solar energy.

Section 25 – Notices

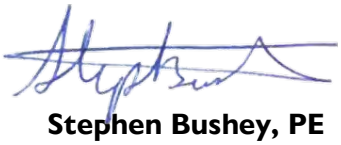
The project has been publicly noticed for both the City of Portland Planning Board workshop and a neighborhood meeting that will be held on July 26, 2020. As required, once the meeting has been held, supporting evidence and Certification of the Meeting will be filed with the City of Portland.

We trust that this information will allow your prompt consideration and response to the City Planning Department (James Rather – Planner jrather@portlandmaine.gov). The project is tentatively schedule for a Planning Board Workshop on July 27, 2021.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER



Stephen Bushey, PE
Senior Associate
Phone: 207-772-2515 x286
sbushey@gorrillpalmer.com

Attachments

c: James Rather, City of Portland

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GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

June 18, 2021

Ms. Christine Grimando
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application
Applicants: DC Predevelopment LLC and City of Portland

Dear Christine:

On behalf of **DC Predevelopment LLC (Applicant) and the City of Portland (Co-applicant),** we are pleased to provide the accompanying Major Site Plan Application package related to the proposed Homeless Service Center located at 654 Riverside Street in Portland, ME. This submission package is intended to meet the City's Submission Requirements as outlined in the Major Site Plan Application procedures. This submittal provides information in support of the Portland Land Use Code Article 14 – Major Site Plan Standards. We understand that the City of Portland will be responsible for completing the Third Amended Subdivision Plan[1] for the project area.

The City has engaged DC Predevelopment LLC in response to RFP #21041[2]. The development will include a 51,690± SF Homeless Service Center to include temporary residential use with a kitchen, dining area, staff offices, and a health clinic as well as parking area, outdoor recreational space and courtyard areas. The facility will have the capacity for up to 200 guests.

The development effort will include a team consisting of the following:

- Property Owner – City of Portland
- Applicant –DC Predevelopment LLC and City of Portland
- Architect – Winton Scott Architects
- Design Build Contractor – Cianbro
- Homeless Services Consultant – Amistad
- Civil Engineering and Permitting – Gorrill Palmer
- Landscape Design and planning – ALA Architects
- Sustainability Consultants – Thornton Tomasetti
- Geotechnical Engineer – SW Cole Engineering

[1] See Second Amended Riverside Subdivision CCRD Plan Book 218, page 199, specifically for Lot 4-2
[2] See Council Order 281-20/21 approving and authorizing the first letter agreement with DC Collaborative

EXISTING CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.

- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[3]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Riverside Street in the vicinity of the proposed site entrance includes single lane travel ways in each direction in addition to a center two-way left turn lane that benefits the many property driveways located along the street. There are variable width paved shoulders and curbing on each side of the street. Paved sidewalks exist on each side of the street except for a length or approximately 880 LF just north of the proposed site entrance, towards outer Forest Avenue.

[3] See CCRD Book 27677, page 125

Riverside Street Entrance Location

PROPOSED PROJECT

As taken from the RFP requirements the project is intended to support the following elements:

- Covered entryway
- Security office adjacent to main entrance with space for CCTV monitors
- Double entry access (enough space to do searches before shelter guests may enter shelter)
- 200-space locker room attached to the building with internal and external entry –unheated
- Multi-purpose room/dining area with 200 seating capacity. Area for buffet style serving and access to kitchen
- Kitchen with room/equipment to serve 200, food prep area for breakfast, lunch, and dinner items, salads, soups, sandwiches, materials. Walk-ins, storage, freezers to hold enough prepared meals to serve 200 one hot meal per day - for up to one week
- Staff office area – 16 offices, conference room, copy/office equipment and storage areas, male/women bathrooms, gender neutral bathroom with shower, break room, reception area, waiting area, server room and electrical room – direct access to parking area.
- 15-20 staff lockers
- Large dormitory for male guests – 144 raised beds – 6 feet between, Female – 60 beds.
- All beds to have electrical outlets next to beds.
- Observation area where staff has a direct line of vision into all sleeping space and multipurpose space – containing a small meeting room and office large enough to accommodate wheel-chairs. Areas for computers and printers.
- Laundry/utility room sufficient to provide on-site laundry for residents and general facility needs
- Bicycle storage

- Men/Women/ Gender Neutral bathrooms/showers
- Three to four multi-purpose meeting rooms for service center guests having meetings, classes, activities, etc.
- Storage areas and a mechanical room
- Maintenance room
- Exterior trash compactor and appropriate space for recyclables and compostable waste
- An enclosed court-yard sufficient to accommodate residents and accessible from inside the service center only (emergency exit directly outside but alarmed). Partial cover.
- Parking for 28-30 vehicles
- Attached Health Clinic with direct access from inside the service center and also a separate entrance from outside the service center including:
    - 4 exam rooms
    - Reception and waiting area
    - Patient/staff bathrooms
    - Lab
    - Storage
    - 2 offices
    - Isolation room

These activities will involve site work construction including building and foundation work, utilities construction including water, sewer, drainage, gas, power, and/or communications extensions into the buildings and landscaping. We understand that the site can be served by public infrastructure for water, sewer, electrical and communications, subject to confirmation as well as confirm the availability of natural gas to the site.

For purposes of establishing the use, the Homeless Services Center is considered an Emergency Shelter which is a Conditional Use within the IM/IH zones. Based upon the information provided by the City of Portland the following will be required as part of this development:

- An Easement is required to access and maintain the nearby City Communication Tower;
- An Easement at the site entrance is required to access Portland Trails network to the Presumpscot River;
- The City is responsible for amending the Riverside Street Industrial Subdivision Plan to include the subject parcel (7.01 acre Lot 4-2.); and
- Property to remain in City ownership.

The Major Site Plan and Conditional Use Applications are made part of this current submission.

In accordance with Section 6.5.6 Supplemental use-specific conditional use standards part B pertaining to Emergency shelters we offer the following information:

B. Emergency Shelters

1. *The facility shall provide adequate space for conducting security searches and other assessments.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

2. *The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

3. *A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

4. *Adequate access to and from METRO service shall be provided. The facility shall be within a ¼ mile of a METRO line, or shall be within ½ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.*

   Supporting Evidence: The site is located approximately 0.3 mile from the transit stops of the METRO Route 2 along Forest Avenue. The building will provide for indoor space to permit shelter guests day shelter.

5. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

6. *Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.*

   Supporting evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

   Supporting Evidence: The Site plan contains a plaza at the front of the building where guests may congregate. A second plaza area is also located to the south side of the building and that will contain space for guest to congregate, socialize and participate in activities.

CLOSURE

As outlined in the Major Site Plan submission requirements and checklists, we will upload the following materials upon authorization by City staff:

- General Application Documents
  - Cover Letter/Project Description/Operational Key Plan/Operations Management Plan
  - Major Site Plan Application Checklist/Conditional Use Application
  - Right, Title and Interest
  - Zoning Assessment
  - Existing and/or Proposed Easements (please see Survey Plan)
  - Waiver Request and Waiver Table
  - Financial Capacity
  - Technical Capability
- Transportation
  - Transportation Narrative
- Environmental and Landscape Features & Stormwater
  - Narrative to Address Standards
- Public Infrastructure and Safety
  - Narrative to Address Standards
- Site Design
  - Narrative to Address Standards
- Construction Management Plan
- Site and Architectural Plans

On behalf of **DC Predevelopment LLC and the City of Portland,** we look forward to your continued assistance on the project and we look forward to the next available workshop meeting with the Planning Board. As is required, once we complete the Planning Board workshop, the applicant will be conducting a Neighborhood Meeting(s) We anticipate this meeting will be conducted prior to the Public Hearing.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Attachments

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigridson, Boulos Co.
Kristen Dow, City of Portland

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City of Portland Homeless Services Center

Management Plan

I. Overview:

The City of Portland Homeless Services Center (HSC) at 654 Riverside Street will be a state-of-the-art, one-story emergency shelter that will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18. The HSC will be open 24 hours per day, 7 days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 1** for a comprehensive list of services.

The HSC will further the City's mission by providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. The HSC offers a space where our clients stay and staff can work in a respectful and safe environment. In collaboration with community partners, we will provide wide-ranging services to our consumers with compassion, dignity, and respect.

As with our current shelter, the HSC will serve a diverse population. Women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, and those struggling with substance use and mental health who are unhoused. The services at the HSC will optimize the services of the smaller specialized shelters through a robust referral process that maximizes resources across our system. This system offers the highest level of service by those most equipped to help.

The HSC is a one story building easily accessible to all. Our clients will be able to access the facility throughout the day and will not need to leave with their belongings, something they have been subject to in the past. Our large day space will have an area for meal services including a fully equipped kitchen where staff can prepare and serve meals. Indoor storage lockers, bathrooms with showers and laundry services that are all available to clients. Sleeping areas will have beds where each individual has a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The quad-bed pod layout provides increased ability to social distance when necessary and additional privacy.

The HSC will have a full service federally qualified health clinic (FQHC) operated by Greater Portland Health. The clinic will offer medical, mental health, substance use treatment and dental services on site. Also provided are small group rooms and offices which are utilized for peer support, specialized services and community providers to create wrap-around services for our clients. Please see **Exhibit 2** for a list of community partners.

II. Staffing and Management Responsibilities

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three Managers there is on site coverage 6am-11pm, as well as 24/7 on-call rotation. In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage.

The HSC will be staffed 24/7 by our shelter attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to everyday operations. They will assist new clients with orientation to the facility and assist in connecting clients to our housing team, as well as referring to other community partners on site to include the FQHC.

The HSC will have a team of dedicated housing counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. The Homeless Service Center offers housing services to all clients accessing the service center and will have housing staff onsite 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[1]

A key part of our housing team are the housing retention specialists. They connect with clients as they transition from the shelter. In support of the housing first model the specialist wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, including connecting to community meals, medical care and case management services. Our housing retention specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for reporting, filing, and scheduling. They also work with management on specialized tasks, giving great attention to detail and a high level of accuracy.

[1] "Housing First"*National Alliance to End Homelessness* April 20, 2016
https://endhomelessness.org/resource/housing-first/

Our facilities team is an integral part of ensuring that the space is a safe, clean and inviting place for clients to access and staff to work. We have facilities staff onsite from 6am-2am. Our facilities team respond to all maintenance emergencies and work with all maintenance vendors to ensure our building and grounds are operating at peak condition. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security staff will be located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. In addition to job specific training, our security staff also receive all training available to our full-time team detailed below.

The management team will continue to meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For an exhaustive list please see **Exhibit 3.**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the HSC.

The HSC will have an entryway off of Riverside Street down a well-lit and inviting walking path. There is a dual door system, as well as an external entrance to locker facilities. The dual door system will be monitored by security staff, who will also have access to view both external and internal security cameras on site. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on site.

There will be an enclosed side courtyard for clients who want to access a private outdoor space. The area contains space for outdoor eating and exercise as well as raised garden beds for clients to participate in growing vegetables and flowers. As an extension of our fenced-in courtyard, there will be fencing along the back of the property running parallel to the river to provide increased safety for our clients.

IV. Transportation

Homeless Services Center will include a City operated van as a shuttle service to clients. The shuttle will operate throughout the day to stop at service centers for appointments as well as get back to the facility. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize. In addition to the shuttle van the Homeless Services Center will continue the long standing practices of Oxford Street by using taxi vouchers, metro, and our current vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the HSC will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The HSC premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Clear sight lines will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

Cameras will be mounted externally for easy surveillance of the perimeter. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks. Camera monitors will be visible from the security office, which will be staffed. Cameras are also mounted in internal common spaces. Camera placement, lighting and staff monitoring recommendations came from a 2018 client survey.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 4 ***current contract) which clearly outlines the shelter rules and behavior expectations. This is reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire shelter population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The HSC presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed structural design impacts client success as well as the neighboring community. This HSC was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Greater Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 5** *current policy). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's Oxford Street Shelter Staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding being a good neighbor at intake. Additionally, we currently have a Neighborhood Engagement Strategy (please see **Exhibit 6** *current policy) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect HSC surroundings, the neighborhood and any neighborhood needs or concerns.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As mentioned above, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. The HSC staff will also have a 24 hour hotline (phone number) that connects neighbors

directly to the Homeless Service Center staff. Concerned neighbors are invited to call and discuss any issue, concern or compliment. Staff would also welcome the opportunity to attend any Neighborhood Association meetings.

IX. Monitoring:

The HSC management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee.

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly.

Exhibit 1: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Husky line
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Meals
- On-site health care clinic
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services

Exhibit 2: Service Providers Planning to Offer Services or Outreach On-Site[2]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - Public Health
        - Mobile Medical Project
        - Needle Exchange Program (NEP)
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[2] This list appears in alphanumeric order.

Exhibit 3: Staff Training and Professional Development[3]

- Anti-Trafficking Training
- Bloodborne Pathogens training
- Cardiac Science: AED All Staff Training
- Customer Service Training
- Diversity and Inclusion Workshop
- Emergency Action Plan training
- Equal Access to Housing training by GLAD
- First Aid and CPR
- General Assistance Training
- HMIS training
- Housing Training for Supervisors
- In their Shoes Refugee Training
- Introduction to Cultural Competency
- Kepro Training
- Language Access Training
- Mental Health First Aid Training
- Military Culture 101
- Munis Training
- Narcan/Overdose Reversal/Response Training
- National Alliance to End Homelessness Conference
- New Employee Orientation
- New Per Diem Training
- Public Charge Training by ILAP
- Rapid Resolution Housing Training
- Reasonable Suspicion for Supervisors
- Serious accident reporting
- Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health
- Tyler Training
- Understanding and Supporting LGBTQ Individuals
- Verbal Judo Training
- Violence Against Women Act training by Through These Doors
- Workers Compensation for supervisors

[3] This list appears in alphanumeric order.

Exhibit 4: Resident Contract

GUEST CONTRACT

The Oxford Street Shelter is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our Shelter. Any violations of our Shelter safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the shelter building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the shelter building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the shelter building or on the premises is strictly prohibited and could be grounds for restriction from access to shelter.
- **Weapons of any kind are not allowed in the shelter building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into any of the shelter buildings, waiting areas or overflow sites. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access to shelter.**
- No use of profanity/swearing. No loud music on property. No horseplay or aggressive behavior/language on property.
- **Use of inappropriate speech can result in restriction from shelter access. The shelter has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The shelter has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction from shelter access.**
- Sexual activity of any kind is not permitted in the shelter or on shelter grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the shelter and on the grounds. This includes wearing shoes while moving around the shelter.
- Cell phones must be silenced or turned off while in the building. Guest phones are available for use during daytime hours. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**

- Good personal hygiene is a priority. Showers are available after check in. Personal hygiene items are available upon request from staff at the front desk. The available personal hygiene items include: soap (in the showers), towels, toilet paper, shaving cream, toothbrushes, toothpaste, and combs.
- Outdoor restrooms are available between 8am & 8pm daily.
- Blankets, towels and linen must be returned and placed in the bins at the front desk on the 1st floor and may not be removed from the shelter.
- Personal linens such as: blankets, sheets and pillows, are not permitted in the building and are not to be used in the dorms.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- The shelter curfew (lights out) is at 8:30pm.
- Electronic devices that emit light and/or noise are not permitted to be used in the Shelter after lights out (8:30pm). Devices that do not emit light and are used with headphones and do not disturb other shelter guests may be permitted at the discretion of shelter management or the supervisor on duty.
- Once you have checked in and have been assigned a bed, you may leave the building but stay on property for up to 30 minutes. If you leave the building for more than 30 minutes, you will be considered to have left for the night. If others are waiting for bed space, the bed you were assigned may be reassigned to the next person waiting. If at any time you leave property you are at risk of having your bed stripped and reassigned. If you leave before 11pm and return you may be checked back in once. If you leave after 11pm you will not be checked back in.
- The shelter does not allow check-ins past 2am.
- All guests must be out of bed no later than 7:30am (earlier in some areas).
- The City is not responsible for lost and stolen belongings. Any items left behind or unattended will be discarded immediately. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- Shelter staff is not permitted to hold, monitor or administer medications for you. If you have medication that must be refrigerated, you will be able to store your medication in a refrigerator designated for medication storage only. You store your medications in this refrigerator at your own risk.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Lockers are available onsite. Please see a staff member to sign up. Lockers are only accessible from 5am-6am, 9am-10am, 1pm-2pm and from 8pm-9pm daily. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- Day services are available from 8:30am-3:30pm. You must check in on the ramp side of the property.
- The shelter dayroom is open Monday-Friday from 3:30pm-7:30pm. Hours may vary on weekends and holidays, or in case of inclement weather.
- Shelter ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests must attend housing orientation the day following their intake to the shelter for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please stay out of the street if outside of the courtyard area & respect our neighbors and neighborhood at all times.

Agreements

- I hereby accept shelter at the City of Portland Social Services Division Oxford Street Shelter and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.
- I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.
- I authorize the Social Services Division Oxford Street Shelter to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.
- I understand that Shelter management may restrict my access to Shelter if I turn down an option for housing.
- I understand that Shelter Staff and/or management may restrict my access to the Shelter, dayroom and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff relating to staff at the Shelter.

_____ _____

_____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 5: Reasonable Rules

OXFORD STREET SHELTER

SHELTER POLICY – REASONABLE RULES

The **Oxford Street Shelter** is a City run shelter for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in City run shelters. In addition, the City reserves the right to refuse admission to the shelter to any individual whose presence in the shelter is determined by the City to pose a danger to other individuals residing in the shelter or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in any shelter facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to shelter facilities or property or neighborhood
- Smoking is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 6: Neighborhood Engagement Strategy

OXFORD STREET SHELTER

Neighborhood Engagement Strategy

Staff of the **Oxford Street Shelter** are committed to maintaining a positive relationship with our surrounding neighbors.

Staff engagement to ensure that our program is maintaining a positive influence in the community:

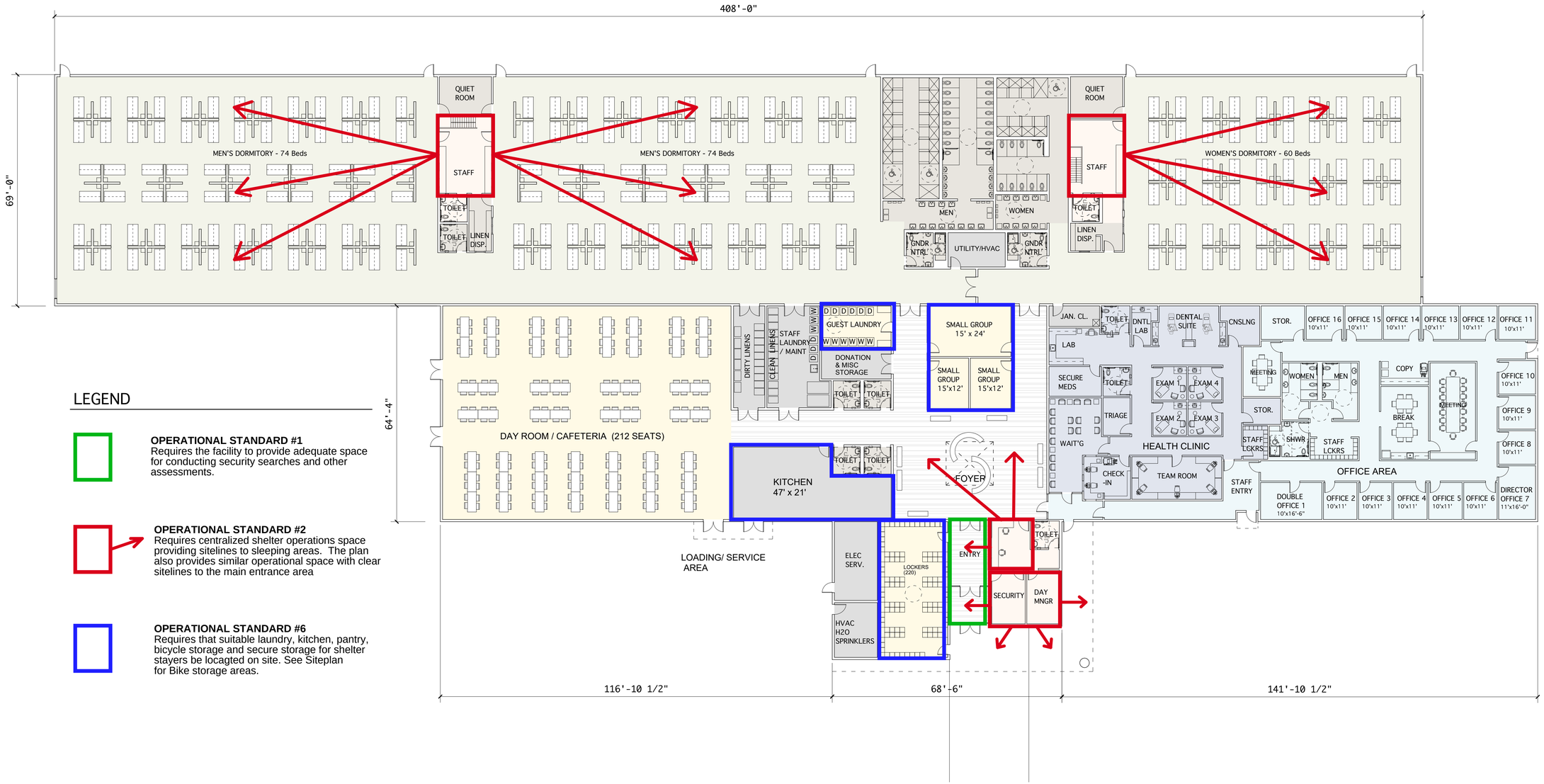
Staff maintain perimeter checks throughout the neighborhood on all of our 24 hour shifts. Staff have built and maintained good relationships with both clients and our neighbors and can assist in neighborhood issues as they arise.

The shelter runs a 24 hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving shelter guests along from neighbor's front steps, etc. and can decrease police calls for service.

The shelter operates an outdoor storage facility to allow guests to have a place to leave their belongings while going on housing showings, job interviews, etc. This also has decreased the amount of guest belongings that were stored amongst the neighborhood.

The shelter operates an outdoor bathroom facility, increasing the amount of facilities accessible to those we serve.

A representative of the shelter regularly attends the neighborhood association meetings.



LEGEND

OPERATIONAL STANDARD #1
Requires the facility to provide adequate space for conducting security searches and other assessments.

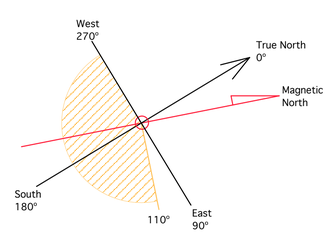
OPERATIONAL STANDARD #2
Requires centralized shelter operations space providing sitelines to sleeping areas. The plan also provides similar operational space with clear sitelines to the main entrance area

OPERATIONAL STANDARD #6
Requires that suitable laundry, kitchen, pantry, bicycle storage and secure storage for shelter stayers be locagted on site. See Siteplan for Bike storage areas.

OPERATIONAL STANDARDS KEY PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



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Winton Scott Architects

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CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street, Portland

BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

OPERATIONAL STANDARDS KEY PLAN

A1.2

JUNE 14, 2021

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST
Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW **

At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.

GENERAL APPLICATION DOCUMENTS		
(Yes)	NA	**Project Description** ● Cover letter with detailed project description
(Yes)	NA	**Completed Checklist** (this document)
(Yes)	NA	**Evidence of Right, Title, and Interest** ● Deeds, leases, or purchase and sales agreements
(Yes)	NA	**Evidence of State or Federal Approvals** ● Permits or letters of non-jurisdiction, if applicable
(Yes)	NA	**Zoning Assessment** (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
(Yes)	NA	**Site Plan Standards Assessment** (see Section 14.6 of the land use code) ● Summary of project compliance with site plan standards of the land use code
(Yes)	NA	**Summary of Existing and/or Proposed Easements or Covenants, applicable.** ● Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
Yes	NA	**Waiver Requests** (see Waiver Table) ● Written request for waiver describing request and compliance with applicable waiver standards
(Yes)	NA	**Financial Capability** ● Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
(Yes)	NA	**Technical Capability** ● Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION	
(Yes) NA	**Impact on Surrounding Street Systems (14-14.6.1(A))** ● Describe incremental volume of traffic impacts and mitigation measures. If needed
(Yes) NA	**Access and Circulation (14-14.6.1(B))** Identify and describe the following: ● Site access and internal circulation, including ADA access ● Drive-up features, if applicable ● Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable ● Sidewalks and condition along street frontages and internal walkways ● Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
(Yes) NA	**Public Transit (14-14.6.1(C)), if applicable** Identify and describe the following: ● Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
(Yes) NA	**Off-Street Parking (14-14.6.1(D)), if applicable** Identify and describe the following: ● Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code ● Curb cut separation and parking layout (Technical Manual, Section 1) ● Construction details for bicycle racks ● Management plan for snow storage and removal
Yes (NA)	**Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable** ● Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
(Yes)	NA	**Preservation of Significant Natural Features (14-14.6.2(A)), if applicable** Identify and describe the following: ● High and moderate value waterfowl and wading habitat ● Aquifers (for Casco Bay Islands) ● Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) ● Proposed preservation areas and protection measures ● Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
(Yes)	NA	**Landscape Preservation (14-14.6.2(B))** Identify and describe the following: ● Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) ● Measures to protect existing vegetation during construction
(Yes)	NA	**Site Landscaping and Buffers (14-14.6.2(C))** Identify and describe the following: ● Overall landscaping approach and consistency with standards ● The use of screening and buffering of service areas and between non-residential and residential uses ● Existing Heritage or Feature Trees on site and measures to preserve ● Compliance with street tree requirements
(Yes)	NA	**Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D))** Identify and describe the following: ● Erosion and sedimentation control plan and measures ● Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable ● Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY	
Yes NA	**Consistency with City Master Plans (14-14.6.3(A))** ● Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes NA	**Public Safety and Fire Prevention (14-14.6.3(B))** Identify and describe the following: ● Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) ● Emergency vehicle access ● Consistency with public safety standards (Technical Manual, Section 3)
Yes NA	**Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9)** Identify and describe the following: ● Electrical services, including providing underground services ● Existing and proposed connections for public utilities and required public utility upgrades ● Sewer line connections
SITE DESIGN	
Yes NA	**Massing, Ventilations and Wind Impact (14-14.6.4(A))** Identify and describe the following: ● Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable ● Bulk, location, or height impacts on adjoining structures
Yes NA	**Shadows (14-14.6.4(B)), if applicable** ● Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes NA	**Snow and Ice Loading (14-14.6.4(C))** ● Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes NA	**View Corridors (14-14.6.4(D)), if applicable** ● Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes NA	**Historic Resources (14-14.6.4(E)), if applicable** Identify and describe the following: ● The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district ● Compliance with standards for preservation and documentation of archaeological resources

(Yes) NA	Exterior Lighting (14-14.6.4(F)) ● Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
(Yes) NA	Noise and Vibration (14-14.6.4(G)) ● Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
(Yes) NA	Signage and Wayfinding (14-14.6.4(H)), if applicable ● Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs ● Provide drawings of all commercial and directional signage on site
(Yes) NA	Zone-Related Design Standards (14-14.6.4(I)) ● Address any applicable design review standards by zone, including compliance with Design Manual

CITY OF PORTLAND
Planning & Urban Development Department

CONDITIONAL USE – PLANNING BOARD REVIEW SUBMISSION CHECKLIST Please submit each document as a separate PDF file. Please confirm by electronically checking the boxes in the left-hand column.	
Conditional uses are listed in the land use code for each zone. The applicant must address the general standards as well as any use- or zone-based conditional use standards contained in Article 6.5 of the land use code in the written application.	
GENERAL APPLICATION DOCUMENTS	
(Yes) N/A	**Project Description** • Cover letter with detailed project description
(Yes) N/A	**Completed Checklist – Conditional Use** (this document)
(Yes) N/A	**Evidence of Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
CONDITIONAL USE STANDARDS AND CRITERIA	
(Yes) N/A	**Traffic** • Demonstrate that the volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the zone.
(Yes) N/A	**Environmental Impacts** • Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
(Yes) N/A	**Design and Operation** • Demonstrate that the design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
(Yes) N/A	**Use- and Zone-Specific Criteria** • Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

RIGHT, TITLE & INTEREST

As outlined in City Council Order 281 – 20/21 the Portland City Council has authorized DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process. The following is an excerpt of the June 21, 2021, Council packet confirming the vote taken at the June 7, 2021 Council meeting.

"

Order 281-20/21 Approving and Authorizing First Letter Agreement with Developers Collaborative for the Homeless Service Center Project on Riverside Street - Sponsored by Councilor Spencer Thibodeau, Chair, Housing & Economic Development Committee

Motion was made by Councilor Thibodeau and seconded by Councilor Ray for passage. Passage 8-0 (Dion out).

"

The Record Owner of the property is the City of Portland by deed dated May 18, 2010 and recorded at the Cumberland County Registry of Deeds in Book 27825, page 68. A copy of the deed accompanies this section.

QUITCLAIM DEED WITH COVENANT

KNOW ALL MEN BY THESE PRESENTS, that **DOWNTOWN PORTLAND CORPORATION**, a Maine non-profit corporation with an address at Portland City Hall, 389 Congress Street, Portland, Maine 04101 (together with its successors and assigns, "Grantor"), for consideration paid, grants to **THE CITY OF PORTLAND**, a municipal corporation with an address of 389 Congress Street, Portland, Maine 04101 ("Grantee"), with QUITCLAIM COVENANT, a certain parcel of land, together with any improvements thereon, containing 40.9 acres, more or less, located on Riverside Street, Portland, Cumberland County, State of Maine, subject to all matters of record, including, but not limited to, that certain conservation easement granted to Portland Trails contemporaneously herewith, and being more particularly described in a Conservation Easement Plan recorded in the Cumberland County Registry of Deeds in Plan Book 210, Page 129, incorporated herein by reference.

IN WITNESS WHEREOF, Downtown Portland Corporation has caused this instrument to be executed in its name by Gregory Mitchell, its Assistant Secretary, thereunto duly authorized, this 18 day of May, 2010

WITNESS:

DOWNTOWN PORTLAND CORPORATION

By: Gregory Mitchell
Its: Assistant Secretary

State of Maine
Cumberland, ss.

May 18, 2010

Personally appeared the above named Gregory Mitchell, Assistant Secretary of the Downtown Portland Corporation and acknowledged the foregoing to be his free act and deed, in said capacity and the free act and deed of the Downtown Portland Corporation.

Before me,

#7990

~~Notary Public~~/Attorney-at-Law

Ann M. Freeman
Print or Type Name

Received
Recorded Register of Deeds
Jun 08,2010 08:59:38A
Cumberland County
Pamela E. Lovley

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ZONING ANALYSIS

See attached Zoning Analysis Table and project site plans for additional information.

ZONING ANALYSIS Relevant Zone(s) IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

NOT APPLICABLE

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size		
Minimum Lot Area per Dwelling		
Maximum # Units per Building		
Maximum Building Length		
Maximum Accessory Building Length		
Minimum Setbacks		
Minimum Building Separation		
Minimum Open Space		

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height			
Setback Reduction			
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

WAIVER REQUESTS

The Applicant is seeking the following waivers.

Standard to be Waived: Cite Ordinance or Technical Manual Standard	**Cite Standard Language:** Cite specific language of applicable Ordinance or Technical Manual Standard	**Waiver Being Sought:** Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20'.	**Justification for Waiver:** Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual Section 5.III – Chapter 500 Flooding standard	*MeDEP Chapter 500 provisions related to Stormwater management*	The applicant is seeking a waiver of the flooding standard, whereby stormwater water quantity control is not required.	The site discharges stormwater runoff to the low end of the Presumpscot River which is considered a major river segment therefore quantity control is not required. Water quality treatment will continue to be provided by means of various BMP's including undisturbed buffers within the adjacent City owned Conservation Land.
Section 14.6.1.E Transportation Standards requiring a Transportation Demand Management Plan (TDM)	*All Commercial, Institutional, or mixed use development of 50,000 SF or more total floor area shall design and implement a TDM plan*	The applicant seeks a waiver of the TDM as the development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time	The development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time.

FINANCIAL CAPACITY

The Applicant has the means at its disposal for financing the proposed Homeless Services Center project. A letter from Gorham Savings Bank is attached to this section as evidence of the applicant's financial capacity to undertake the development.

A breakdown of the preliminary project cost includes the following:

Construction and Site Work:	$17,380,000
Additional Furnishings:	$200,000
Soft Costs:	$1,646,335
Total	**$19,226,335**

These values are considered preliminary and approximate and are subject to change as building design and project layout is refined.

Gorham SAVINGS BANK
Banking is believing℠

June 18, 2021

City of Portland
389 Congress Street
Portland, ME 04101

RE: Homeless Service Center at 654 Riverside St, Portland, Maine

To Whom It May Concern:

We have been working with Developers Collaborative as well as Drew Sigfridson and Kevin Bunker on their proposal to construct a homeless service center at 654 Riverside St, Portland, Maine. Developers Collaborative is an established and valued customer of the Bank and has the financial capacity to complete this project. We are excited about their plans for 654 Riverside Street, Portland, Maine, and look forward to working with them in further support of the project.

Please feel free to contact me with any questions.

Sincerely,

Matthew W. Early
Senior Vice President

MWE/JRS

TECHNICAL CAPABILITY

The applicant has retained a highly qualified team of professionals to undertake planning, permitting and design tasks on this project. Services will be provided by the following companies and their respective team leaders:

Civil Engineer	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 707 Sable Oaks Drive South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
Architect	Steve Weatherhead, RA Winton Scott Architects 5 Milk Street, Suite #4 Portland, ME 04101 sweatherhead@wintonscott.com
Surveyor	Sebago Technics Charlie Marchese 75 John Roberts Road, Suite 4A South Portland, ME 04106 cmarchese@sebagotechnics.com
Geotechnical	SW Cole Engineering Tim Boyce PE 286 Portland Road Gray, ME 04039 tboyce@swcole.com
Landscape Architecture	Nick Aceto, PLA ASLA Aceto Landscape Architects PO Box 3787 Portland, ME 04104 (207) 221-3390 na@acetola.com
Construction Management	Cianbro Bruce Cummings and Tom Figura bcumming@cianbro.com/tfigura@cianbro.com

The team of consultants retained by developer has expertise and experience in the design of similar commercial projects. Resumes of key personnel for development team can be provided upon request.

The Applicant also has significant experience in the design, permitting, development and management of large institutional projects as evidenced in the team's proposal to the City.[1]

[1] See Response to Request for Proposal RFP #21041 dated April 27, 2021

TRANSPORTATION

The following statements are provided in accordance with the Section 14.6 Site Plan Review Standards of the ordinance.

TRANSPORTATION

14.6.1 Transportation Standards

Impact on Surrounding Street Systems 14.6.1(A)

- *Describe incremental volume of traffic impacts and mitigation measures. If needed*

The development will fit in with the existing street system as it will use a new driveway off Riverside Street. Riverside Street currently has a travel lane in each direction and a center two-way left turn lane for turning traffic into the site. The posted speed on Riverside Street is 35 mph. There are 8' wide paved shoulders on each side of the road. The available sight distance in each direction exceeds 500 LF which complies with the Technical Standards value of 305 feet for the 35 mph posted speed.

The proposed shelter will be operated 24/7 with staffing at all times. Staff on the site at any one time will be less than 50 persons thus the trip generation attributable to the development will be less than 100 trips in the peak hour, thus remaining below the threshold requiring a MaineDOT Traffic Movement Permit.

The next closest intersections to the development include the signalized intersection of Forest Avenue (Route 302) and Riverside Street to the north and the signalized intersection of Riverside Street and Warren Avenue to the south. The proposed shelter is not expected to impact the operations of either of these signalized intersections.

Access and Circulation 14.6.1(B)

- *Site access and internal circulation, including ADA access*
- *Drive-up features, if applicable*
- *Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable*
- *Sidewalks and condition along street frontages and internal walkways*
- *Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)*

(i) The development provides primary two-way access via Riverside Street. Internal circulation has been reviewed and designed to accommodate the typical use of passenger and emergency vehicles by means of the 24' wide main site driveway and a minimum 20' wide perimeter loop drive around the building. The applicant is proposing ADA parking at the front of the building for access.

(ii) There are no drive-up features proposed.

(iii) Access and egress have been designed to avoid conflict with existing turning movements and traffic flows. Please see AutoTURN diagrams included in Section 10.

(iv) Public sidewalks exist along the east and west sides of Riverside Street except for a short length on the west side of Riverside Street north of the proposed driveway entrance. The sidewalk on the east side of Riverside Street extends to Forest Avenue and ultimately to the existing transit stops located approximately 1600 LF from the site. The development will include a 12' wide paved pedestrian route extending from the Street into the site and to the building's main entrance. A Plaza space will be provided along this route for the use and benefit of the Shelter guests.

Public Transit Access 14.6.1(C), if applicable

- *Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter*

The site is served by nearby transit service on Forest Avenue. The METRO Route 2 includes outbound and inbound transit from the Portland Downtown to Prides Corner. There are several stops located in the vicinity of the Hannaford Store and Riverton. Similarly, the METRO Route 3 services connects Hannaford-Riverton-Westbrook- South Portland along East Bridge Street, Spring Street and the Maine Mall. The METRO Route 4 includes service along Brighton Avenue, south of the proposed shelter site. Exact details as to any shelter improvements at any of the existing transit stops along Forest Avenue have yet to be formulated with METRO but are anticipated to be discussed during upcoming meetings.

Parking 14.6.1(D)

- *Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code*
- *Curb cut separation and parking layout (Technical Manual, Section 1)*
- *Construction details for bicycle racks*
- *Management plan for snow storage and removal*

1. Vehicular Parking

The proposed project will include 43 parking spaces. This exceeds the value of 28-30 spaces required under the terms of the RFP #21041 that the City had issued. This parking capacity is expected to provide for both the anticipated staff load as well as guests/visitors to the site.

2. Bicycle Parking

The site plan currently identifies 10 bike spaces to satisfy the 8 bikes required (2 spaces/10 vehicles). Please see the Landscape plans by ALA for further information on the outside bike parking locations.

3. Snow Storage.

a. Snow storage management will employ two strategies:

1. On-site snow storage around the perimeter of the site as shown on the site plans; and
2. Snow removal and off-site storage.

4. Electric Vehicle (EV) Charging

The Applicant will be providing conduit for EV Charging stations for 20% of the parking spaces or 8 spaces.

Traffic Demand Management (TDM) 14.6.1(E), if applicable

- *Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements*

A TDM plan is not required for this project based on the use as an emergency/homeless shelter where the predominate means of access by guests will be foot traffic. .

ENVIRONMENTAL

The following statements are provided in accordance with the Section 14 of the Ordinance.

14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features 14-14.6.2(A), if applicable

- *Populations of trees and plants that are endangered or threatened*
- *Habitat for species*
- *High and moderate value waterfowl and wading habitat*
- *Aquifers on Casco Bay Islands*
- *Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains)*
- *Proposed preservation areas and protection measures*
- *Documentation from environmental compliance consultants and determinations from applicable state and federal agencies*

1. Preservation of Significant Natural Features:

a. The development site does not contain any significant natural features including wetlands of special significance, vernal pools or other protected resources. A forested wetland was identified within the conservation area located outside of the site boundaries. The site is nearly all covered with previously filled land that has reverted to grass and shrub vegetation naturally. No further evidence will be provided for the current application, unless requested.

B. Landscape Preservation 14-14.6.2(B)

- *Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4)*
- *Measures to protect existing vegetation during construction*

1. The site's existing tree coverage is sparse due to the nature of the historical placement of fill across the site. There are no specific trees earmarked for preservation as a result of these site conditions.
2. The majority of the development footprint lies within previously filled land.

C. Site Landscaping and Buffers 14-14.6.2(C)

- *Overall landscape approach and consistency with standards*
- *The use of screening and buffering of service areas and between non-residential and residential uses*
- *Existing heritage or Feature Trees on site and measures to preserve*
- *Compliance with Street Tree requirements*

1. Landscaping

The proposed landscape plan meets (and exceeds) the Site Plan review standards in Section C of the Technical Manual. The applicant is proposing a mix of shade and flowering trees—as well as shrubs, ornamental grasses, and perennials—along development frontage and at the site's interior

that will add aesthetic interest, ecological value, and scale to the proposed development. All proposed trees are listed in the City of Portland Recommended Tree List. Due to the site's current use as filled land, there are no existing trees or vegetation that need preservation.

2. *Buffers:*

There are no service or loading areas observable from nearby sidewalks or residential properties and trash and recycling will be contained within a solid screened enclosure. Various new tree plantings consisting of both evergreen and deciduous will be planted along the shared boundaries with the Lucas Tree Experts site and the Suburban Propane site, both located along the southerly sideline shared with those uses.

(a) The City is the owner of the conservation land along the north and west sides of the property. The existing woods within these areas will remain as a permanent buffer to at least ½ the property perimeter.

(b) Not applicable

(c) Evergreen tree plantings will be placed along the shared boundary with the Lucas Tree experts.

3. *Parking and Vehicle Display Lot Landscaping*

The applicant is proposing a mix of shade trees, ornamental trees, and shrubs in the plaza spaces and around the site perimeter. The parking lot will be screened from view from Riverside Street and surrounding property primarily due to distance and grade change from the street.

4. *Street Trees*

The proposed development has less than 100 feet of street frontage. Trees are proposed along the entrance drive with several located just off the Riverside Street right of way.

D. Water Quality, Stormwater Management and Erosion Control 14-14.6.2(D)

1. The proposed development results in 150,041± SF (3.44 ac) of proposed impervious area. This includes 51,690 SF of building roof and 98,351 SF of hard surfaces associated with pavement, plaza, and sidewalks. The stormwater management design will include measures to comply with the water quality treatment standards. A waiver is requested of the stormwater flooding standards since the site is directly tributary to the Presumpscot River, which is considered a major river segment. The development site is located at the lower end of the overall river watershed and thus the need for flood controls are not necessary as the hydrologic peak flow condition for the site are substantially sooner than the overall watershed peak. The approach to not control the site's increased runoff discharge is commonly referred to as "beat the peak" approach. Since the site's runoff will only cross over City retained land before entering the river, there are no issues for downstream flooding. Similar waivers of the flooding standards have been granted for other properties along Riverside Street, including the Second Tee Business Park for example and the Suburban Propane site.

For water quality treatment one primary measure for treatment will be the use of level spreader outlets to disperse runoff over a wide area to allow sheet flow over the adjacent conservation areas. These measures are outlined in Chapter 5 of the MaineDEP Stormwater Management BMP Manual. In addition to the use of the vegetated buffers, the site design may employ additional BMPs including rain gardens and other filtration BMP's into the overall management approach.

2. The proposed project will comply with the City's stormwater management standards of the Technical Manual. The project will employ various Best Management Practices including undisturbed vegetated buffers, rain gardens and/or filtration BMP's.

3. The development will include some amount of runoff infiltration into the underlying ground as water passes over the undisturbed vegetated buffers. This is due to the absorption capacity of the onsite soils and the depth to groundwater. This is a benefit/advantage of the site and the ability to provide some amount of infiltration practices as part of the Stormwater Management regime.

STORMWATER MANAGEMENT REPORT
(GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC/CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021

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STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed City Homeless service center on an undeveloped 7.01-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

Total Area of Site: Lot 4-2 = 7.01 acres (305,505 sf)
Total Site Area to be Disturbed: Approx. 5.2 acres
Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
Total Impervious Area After Construction: 150,041 SF (3.44 acres)

Prop Building: 51,690 SF
Prop Pavement: 61,734 Sf
Prop Sidewalk: 8,538 Sf
Prop. Plaza Area: 9,119 Sf
Prop. Pavement Flex Area: 11,067 SF
Prop. Raised Gardens/Social Spaces: 5,033 SF
Prop. Pavilion/Outdoor Seating: 2,860 SF

This section of the Major Site Plan Application presents the Stormwater Management Plan designed for the project activities. The stormwater management design presented herein will show that the site will meet the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to these lower watershed conditions, **the applicant is requesting a waiver of the flooding standards as has been previously granted for projects in this area of Portland**. As discussed below the site's current conditions are characterized by filled land that has been substantially naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs and duff cover. Slopes associated with the manmade fill limits vary from 6 to 15% down to a flatter zone along the river.

The proposed stormwater quality treatment approach primarily utilizes the 'Vegetated Buffers' approach listed in the Maine Best Management Practices (BMPs) to meet the stormwater quality standards required under the general standards as outlined in the adopted MeDEP Chapter 500 Stormwater Management Technical Manual. The site's surrounding vegetated buffers are intended to provide water quality treatment for close to 100 percent of the proposed development area. We believe the site's conditions including the existing conservation land that lies between the site and the river is an ideal opportunity to utilize level spreaders and

dispersed runoff flow along the site's perimeters so that these waters will sheet thru the heavily forested buffers where soil and vegetative absorption can occur prior to entry into the river.

2.0 EXISTING SITE CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.

- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Sebago Technics has previously completed a topographic survey of the property. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the property.

The site's runoff either infiltrates into the ground or drains downslope directly to the Presumpscot River via overland flow. There are no apparent drainage systems on site, although there is a closed storm drainage system within Riverside Street.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Shelter site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

ONSITE

A 51,000 SF single story shelter facility will be constructed and site improvements will include 43 parking spaces, a primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a perimeter drive around the building for emergency and maintenance access. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions that will comply with the MeDEP VRAP program.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003* *http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm*
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the flooding standards is requested, no formal hydrologic analysis using HydroCAD has been performed.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

- That detention will not be required to reduce the peak flow rate or meet the flooding standards. **A waiver of the flooding standards is requested on the basis that similar waivers have been granted in the past for development in the nearby vicinity.**
- That the filled soils and the native soils in the surrounding conservation area will have infiltrative properties that meet the requirements of the Maine DEP Vegetative buffer BMP's proposed. Note: **A waiver is being sought for infiltration testing**.

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010).
- Designing water quality measures including vegetative buffers, level spreaders and raingarden pretreatment to provide long-term removal of non-point contaminants.
- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual (to be provided as a separate document).

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

Approach

To meet the General Standards, our office reviewed the list of options of MeDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including grassed underdrained filter, bio-filter, vegetated buffers, proprietary devices, and infiltration trenches for the site. Following this review and incorporating knowledge of the site and the goals of the project, it was realized that developing a method for providing stormwater quality treatment that utilizes the surrounding undisturbed vegetated forested buffers for dispersing sheet flow and allowing as much runoff infiltration as possible into the underlying soils would be preferable

both functionally and economically. According to the MaineDEP BMPs this is known as a "Vegetated buffer" approach to stormwater quality treatment.

The use of buffers will require careful collection and dispersing of runoff via level spreaders at various locations along the site's downhill perimeter.

The basis of design of treatment method is as follows:

Compliance with BMP Design Criteria:

Size Suitability:

The overall site is 7 acres and developed area will be approximately 5 acres. The proposed buffers consist of heavily forested conservation land downhill of the site. There are several areas of concentrated ravine type conditions that will need to be avoided for the release of water from various level spreaders. There are however also many zones where a level spreader can be positioned to release water into a sheet flow condition thru the buffer zones. The slopes downhill of the site vary from 3% to as steep as 15% which is the upper limits for buffers. Steeper slope conditions will be avoided. The soils in the site are all controlled fills. The native soils further downgradient in the buffer zones consist of clays, tills and sands. The existing buffers appear to have a significant forest duff layer that during the current summer conditions supports a very heavy ground cover in many areas that is challenging to navigate thru. The buffers will not include any streams.

Buffer Design:

The initial examination of site conditions yields a finding that the buffers should be suitable for use to treat dispersed runoff from the development site. Additional information on level spreader design, pretreatment and the specified buffer dimensions will be provided in a supplemental memorandum to this report prior to the first Planning Board Workshop.

Vegetative cover:
The buffers are heavily wooded generally throughout.

Maintenance:

The buffer areas and ancillary collection and conveyance measures will require maintenance to assure erosion and sediment transport is avoided and that systems retain their design function of the capture and release of stormwater runoff from the site.

Pretreatment

Pretreatment in the form of rain gardens, stabilized sumps and similar capture devices will be integrated into the design to aid with the removal of heavier sediments, trash, debris etc. prior to the release of runoff into sheet flow into the buffers.

Separation to Groundwater:

Based on the test pit data included in previous subsurface explorations, the groundwater table throughout the site is six to nine feet below existing grade thus there is ample separation from any underlying groundwater resources

Infiltration Testing:

The applicant is seeking a waiver from the infiltration testing requirement. The applicant has observed the existing site after heavy rain events and not observed ponding. The existing site has an uncontrolled layer, and it is expected that the proposed non-impervious surfaces will not negatively impact any infiltration properties below.

Flooding Standard:

Due to the direct discharge to the Presumpscot River, **a waiver from the flooding standard is being requested**.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.44 acres of impervious surface. The proposed disturbed area will be about 5.2 acres. Level Spreaders dispersing runoff to the downhill undisturbed vegetated buffers will be more than sufficient to meet the standards for roof treatment which are generally tied to thermal treatment when a non-asphalt roof is proposed, as is the case for this building.

The proposed stormwater management plan provides treatment for nearly all the development area as site generated runoff will be collected and dispersed over the ground to the downhill buffers zones. Hence, the strategies proposed herein meets the minimum requirements stated in the General Standards. Again, the absorption of runoff from the building roof will result in thermal cooling before the water enters the Presumpscot River.

11.0 EROSION CONTROL

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are part of the plan set. The measures to be used include perimeter sediment barrier placement, careful placement of stockpiles and use of soils cover systems.

12.0 OPERATIONS AND MAINTENANCE

An Operations & Maintenance Manual will be prepared upon the acceptance of the proposed vegetated buffer system.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

The following statements are provided in accordance with the submission and Section 14.6.3 of the ordinance.

Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans 14.6.3.A

1. The proposed development is consistent with the previously approved Amended Subdivision Plan that contemplated development on the approximately 7 acre property. The site is ideally situated to benefit from public infrastructure for utilities, vehicular and pedestrian access as well as nearby public transit on Forest Avenue.

2. The Applicant has coordinated with utility representatives for the maintenance of easements related to utility infrastructure crossing the site. These easements include drainage benefitting the Suburban Propane Site as well utility service to the City owned communications tower. The City will be engaging their survey consultant to assist with any updates/amendments to the overall Riverside Subdivision Plan.

B. Public Safety and Fire Prevention 14-14.6.3(B)

- *Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3)*
- *Emergency vehicle access*
- *Consistency with public safety standards (Technical Manual, Section 3)*

a. The site has been designed to promote a safe and inviting visitor experience. All pedestrian paths and outside gathering spaces have been positioned to maintain visibility and consider safety for the users.

b. The primary site access will be off Riverside Street. The entrance drive will connect directly to the front building entrance whereby allowing the building staff reasonably clear vision to vehicles coming and going into the property.

c. The site plan includes emergency vehicle around the site perimeter.

C. Availability and Adequacy of Public Utilities 14.6.3(C) (Technical Manual, Sections 2 & 9 9)

- *Electrical services, including providing underground services*
- *Identify existing and proposed connections for public utilities and required public utility upgrades*
- *Sewer line connections are required, if there is a main within 200 feet*

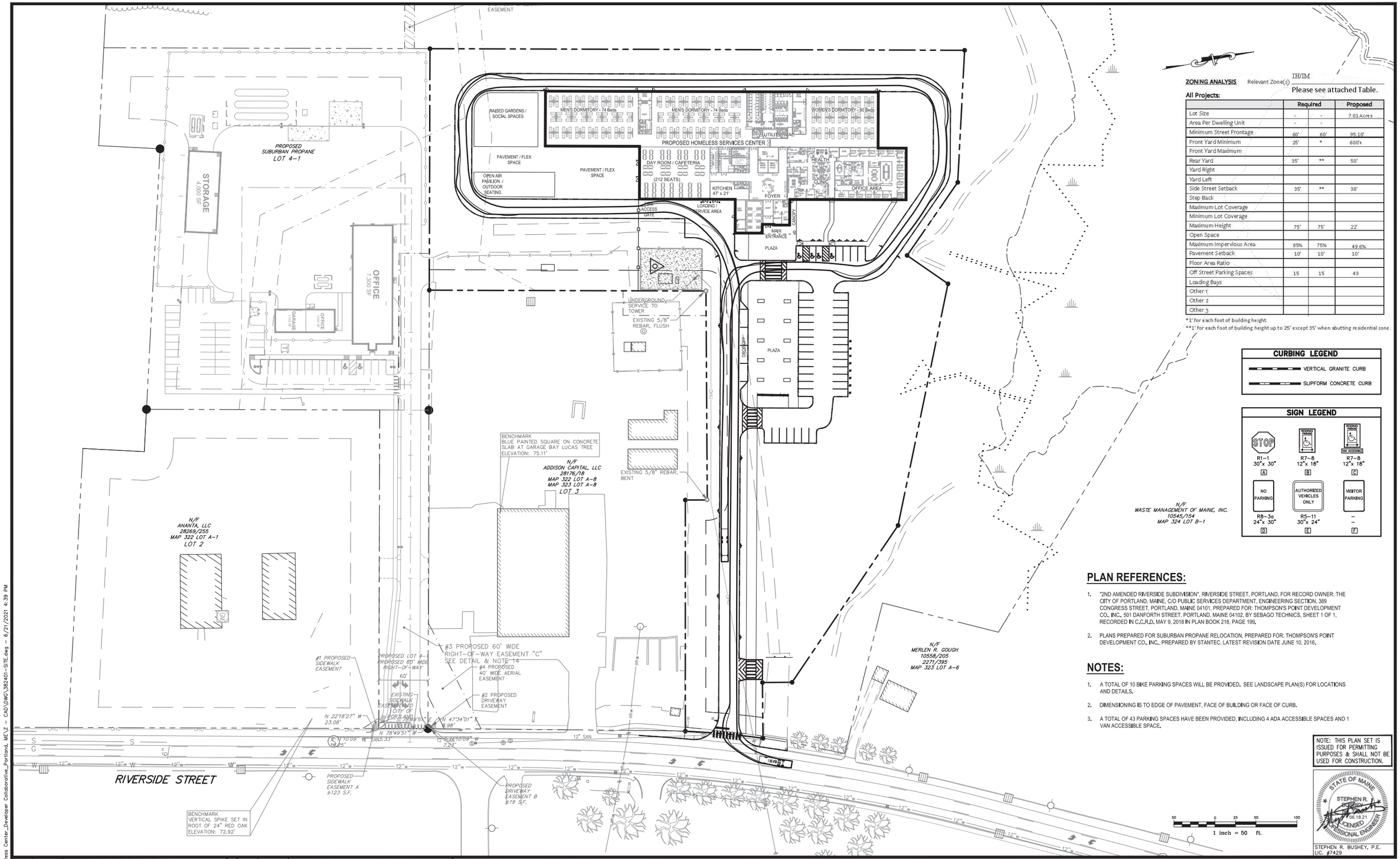
a. The Applicant is coordinating with the onsite utility providers and will forward capacity to serve letters upon receipt. Existing utility systems in Riverside Street include:

- 12" water main
- 12" gravity sewer line
- Overhead three phase power
- Overhead communications lines
- High pressure gas main

b. All electrical and communications feeds are underground on the property.

c. A new sewer connection to the existing 8" gravity main in the Suburban Propane right of way is proposed. The wastewater collection system design has been prepared to comply with the City's technical standards. The building will include a kitchen facility; however, all meals will be prepared at an offsite location and no substantial cooking activity will occur on site. A grease tank is not required as a result. The development team will discuss the need for any solids handling equipment at the site and if needed employ the use of such equipment into the gravity sewer design.

d. The site will include a solid waste and recycling enclosure area for the placement of trash collection cannisters. A contracted waste hauler will be responsible for the removal of all waste on a routine basis.



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

VERTICAL GRANITE CURB

SLIPFORM CONCRETE CURB

SIGN LEGEND

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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CONSTRUCTION MANAGEMENT PLAN

A Draft Construction Management Plan has been prepared and is included with this section.

Portland Shelter Construction Logistics Plan

Secondary Gate

LOT 4-2
AREA: 7.01 ACRES

PROPOSED HOMELESS SERVICES CENTER

Porta Potty & Dumpster Location

Subcontractor Parking Area & Lay Down Area

Construction Boundary Fence

Construction Office Trailers

Cianbro & Visitor Parking

Main Gate

Construction Access

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1-1 30"x 30" [A]	R7-8 12"x 18" [B]	R7-8 12"x 18" [C]
NO PARKING R8-3a 24"x 30" [D]	AUTHORIZED VEHICLES ONLY R5-11 30"x 24" [E]	VISITOR PARKING – – [F]

PLAN REFERENCES:

1.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STEPHEN R. BUSHEY, P.E.
LIC. #7429

1 inch = 50 ft.

Rev.	Date	Revision

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Drawing Name: CONSTRUCTION MANAGEMENT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Figure A

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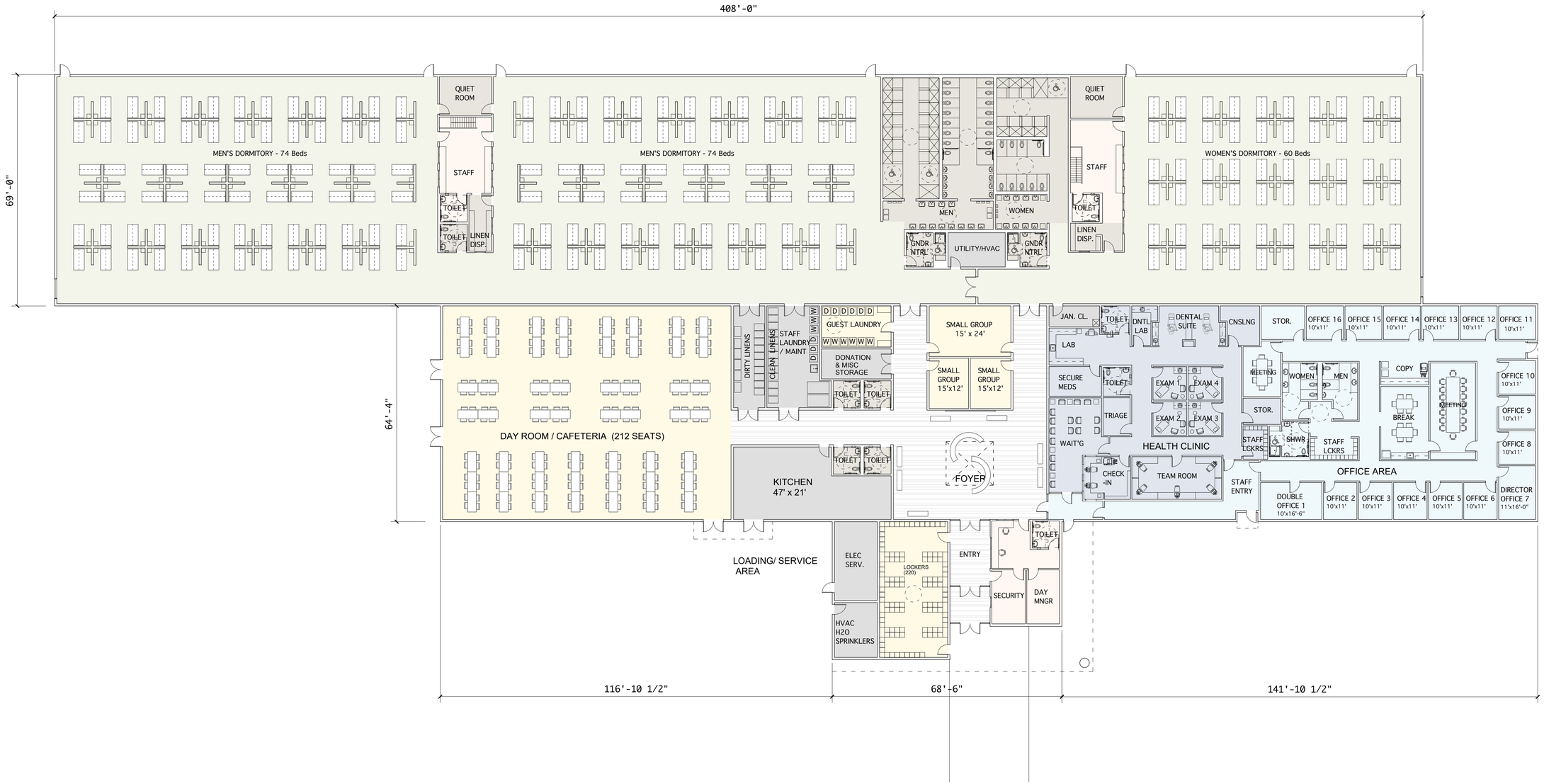
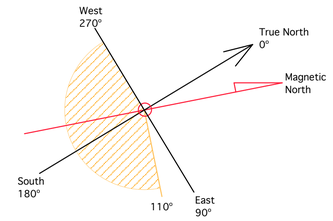


FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



WSA
Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Civil Engineering:
GORRILL PALMER

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Landscape Architecture:
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T. 207.221.3390

Structural Engineering:
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T. 207.774.4614

Sustainability Consultant:
THORNTON TOMASETTI

14 York Street, Suite 201
Portland, ME 04101
T. 207.245.6061

CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street, Portland

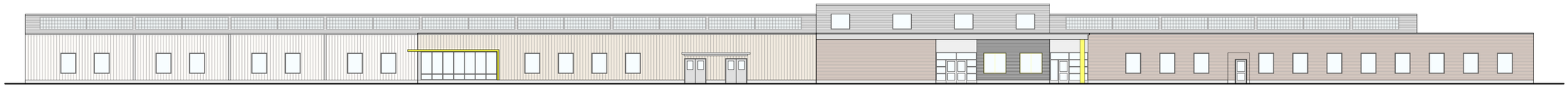
BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

FIRST FLOOR PLAN

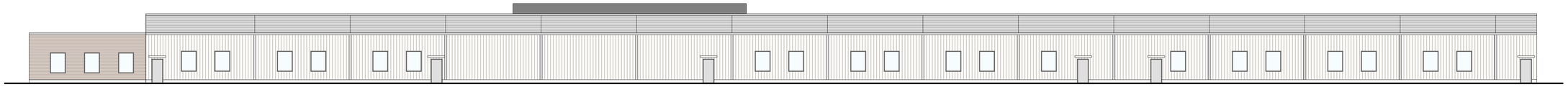
A1.1

JUNE 14, 2021



EAST ELEVATION

SCALE: 1/16" = 1'-0"



WEST ELEVATION

SCALE: 1/16" = 1'-0"

SOUTH ELEVATION

SCALE: 1/16" = 1'-0"

NORTH ELEVATION

SCALE: 1/16" = 1'-0"

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T. 207.245.6061

CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street,
Portland

BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

BUILDING ELEVATIONS

A2.1

JUNE 14, 2021

SITE DEVELOPMENT PLANS

FOR

Homeless Services Center

654 RIVERSIDE STREET, PORTLAND, MAINE

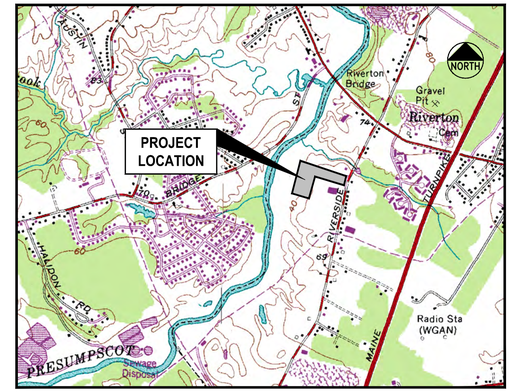
JUNE 2021

PERMIT DOCUMENTS

TAX MAP-BLOCK-LOT NUMBER:
MAP 322 LOT A-10, MAP 323 LOTS A-3 & A-5

CURRENT LAND OWNER:
CITY OF PORTLAND
PORTLAND, ME. 04101
DEED DATED MAY 18, 2010 / RECORDED AT CCRD IN
BOOK 27825 / PAGE 68

DEVELOPER / CO-APPLICANT:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME. 04101
CONTACT: KEVIN BUNKER
207.772.7673
bunker.kevin@gmail.com



LOCATION MAP
N.T.S.

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	C-1.2	2nd AMENDED RIVERSIDE SUBDIVISION (BY SEBAGO TECHNICS, INC.)
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	C-3.0	SITE LAYOUT PLAN
	C-4.0	GRADING & DRAINAGE PLAN
	C-4.1	20 SCALE GRADING ENLARGEMENTS
	C-5.0	EROSION & SEDIMENT CONTROL PLAN
	C-6.0	UTILITY PLAN
*	C-7.0	WATER QUALITY PLAN
	C-8.0	SITE DETAILS
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*	C-11.0	UTILITY PROFILES
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*	W-1	PRE-DEVELOPMENT WATERSHED MAP
*	W-2	POST-DEVELOPMENT WATERSHED MAP

*NOT INCLUDED IN THIS SUBMISSION

UTILITIES

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.761.8310
CONTACT: ROBERT BARTELS
rbartels@pwd.org

SEWER:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8840
CONTACT: KEITH GRAY / BRAD ROLAND

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: PATRICK MORRISON

NATURAL GAS:
NORTHERN UTILITIES / UNITIL
1075 FOREST AVENUE
PORTLAND, MAINE 04103
207.797.8002, EXT. 6220
CONTACT: SCOTT CARPENTER
207.650.6716

CABLE TV:
TIME WARNER CABLE / SPECTRUM
115 JOHNSON ROAD
PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
DIAL 811 (AT LEAST 72 HRS IN ADVANCE)

PERMITS / APPROVALS

TYPE:	GOVERNING BODY:	STATUS/DATE ISSUED:
LOCAL		
MAJOR SITE PLAN APPROVAL:	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8608 CONTACT: KEVIN KRAFT	MAJOR SITE PLAN APPLICATION JUNE 18, 2021
BUILDING PERMIT:	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8900	BY OWNER/ARCHITECT
UTILITY OPENING PERMITS:	CITY OF PORTLAND PUBLIC SERVICES DIVISION 212 CANCO ROAD PORTLAND, ME 04103	BY CONTRACTOR

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

CONSULTANT LIST

CIVIL ENGINEER:
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707 SABLE OAKS DRIVE, SUITE 30
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CONTACT: STEPHEN BUSHEY
sbushey@gorrillpalmer.com

ARCHITECT:
Winton Scott Architects
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PORTLAND, MAINE 04101
207.774.4811
CONTACT: STEPHEN WEATHERHEAD
wintonscott.com

SURVEYOR (TOPOGRAPHY AND BOUNDARY):
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75 JOHN ROBERTS ROAD, SUITE 4A
SOUTH PORTLAND, MAINE 04106
888.976.1123
CONTACT:

GEOTECHNICAL ENGINEER:
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286 PORTLAND ROAD
GRAY, MAINE 04039
207.657.2866
CONTACT: TIM BOYCE, P.E.

LANDSCAPE ARCHITECT:
Aceto Landscape Architects.
565 CONGRESS STREET, SUITE 310
PORTLAND, MAINE 04101
207.221.3390
CONTACT: NICK ACETO / MARGO BARAJAS

CONSTRUCTION MANAGER:
Cianbro
60 CASSIDY DRIVE
PORTLAND, MAINE 04102
207.773.5852
CONTACT: TOM FIGURA

ENVIRONMENTAL:
Woodard & Curran, Inc.
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
207.774.2112
CONTACT:

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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Drawing Name: COVER SHEET
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.0

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\2 - CAD\DWG\382401-COVER.dwg - 6/21/2021 3:50 PM

GENERAL NOTES:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT MANUAL FOR CONSTRUCTION SPECIFICATIONS AND BIDDING PROCEDURES.
2. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCE, PAVING, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS. ENTRANCES IN MOST LOCATIONS REQUIRE STRUCTURAL SLABS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR INFORMATION ON THE STRUCTURAL SLAB ENTRANCES.
4. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSIONS AND THE FINAL SERVICE CONNECTIONS.
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE APPLICANT AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR THE CITY, AT NO ADDITIONAL COST TO THE OWNER.
7. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
8. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE PROJECT SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SHALL APPLY AT NO EXTRA COST TO THE OWNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS THROUGHOUT THE PROJECT AND PROVIDING THE OWNER WITH A SET OF THE FINAL RECORD DRAWINGS WHEN THE PROJECT IS COMPLETE.
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH OUT THE LIFE OF THE PROJECT.

SITE LAYOUT NOTES:

1. ALL HANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS.
2. BITUMINOUS CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.01, 703.07, AND 609.04.
3. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.
4. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.
5. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.
6. STRIPE PARKING AREAS, DRIVES AND ROADWAY AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, CROSSWALKS, HANDICAP SYMBOLS, PAINTED ISLANDS AND FIRE LANES. (ALL MARKINGS EXCEPT MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT.) ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE 'F'. MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT.
7. SEE DETAILS FOR PARKING STALL DIMENSIONS, HANDICAP SYMBOLS, SIGNS AND SIGN POSTS.
8. STOP BARS SHALL BE 12" WIDE.
9. PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES @ 3'-0" O.C. BORDERED BY 4" WIDE LINES.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS.
2. PROVIDE TURF REINFORCEMENT IN AREAS INDICATED ON THE PLANS.
3. AN "AS-BUILT" CERTIFICATION OF THE STORMWATER DRAINAGE SYSTEM BY A REGISTERED ENGINEER IS REQUIRED PRIOR TO THE OWNER ACCEPTING THE BUILDING AND PROPERTY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ANY DEVIATION FROM THE PLANS MAY DELAY THE ACCEPTANCE OF THE PROJECT.
4. A DETAILED O&M MANUAL FOR STORMWATER MANAGEMENT SYSTEMS IS (WILL BE) FILED WITH THE CITY OF PORTLAND DURING THE PERMIT REVIEW PROCESS. A SPECIFIC MANUAL HAS BEEN PREPARED FOR O&M OF THE DRAINAGE SYSTEM.
5. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
6. SEE GRADING, DRAINAGE AND EROSION/SEDIMENT CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
7. ALL DISTURBED AREAS NOT TO BE PAVED, SODDED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
8. COMPACTION REQUIREMENTS:

LOCATION	MINIMUM COMPACTION
SUBBASE AND BASE GRAVEL BELOW PAVED OR CONCRETE AREAS	95%
SUBGRADE FILL BELOW PAVED AREAS	90%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
STRUCTURAL FILL WITHIN PROPOSED BUILDING AREA	95%
SELECT FILL ADJACENT BUILDING FOUNDATIONS, EXTERIOR FOUNDATIONS, AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE	95%

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557.

9. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
10. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND EXIT RAMPS ADJACENT TO THE BUILDING AND ALONG NEW CURBED AREAS. ALL ADA COMPLIANT PARKING SPACES SHALL BE PAVED WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
11. PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH THE FINAL GEOTECHNICAL RECOMMENDATIONS.
12. NATIVE SOILS :
13. FIVE (5.0) FEET OF CLEAN GRANULAR SOIL MEETING THE SELECT FILL GRADATION SPECIFICATIONS SHALL BE PROVIDED BELOW THE ENTRANCE SLABS AND ADJACENT SIDEWALKS. GRADUAL TRANSITION (3 HORIZONTAL TO 1 VERTICAL) OF SELECT FILL THICKNESS SHALL BE PROVIDED FROM THE 5.0 FOOT DEPTH TO THE GRAVEL BASE THICKNESS AT THE SIDEWALKS AND PAVED AREAS AWAY FROM THE BUILDINGS.

UTILITY NOTES:

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE SITE WORK CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. ACTUAL UTILITY INSTALLATION SHALL BE BY THE MEP CONTRACTOR. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE GENERAL CONTRACTOR.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH CONSOLIDATED COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. ALL SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE MAINE STATE PLUMBING CODE AND CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER.
5. COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY. ALL UTILITY WORK SHALL CONFORM TO THE STANDARDS OF THE UTILITY COMPANY AND PROJECT SPECIFICATIONS. IN CASE OF CONFLICT, THE MORE STRINGENT STANDARDS SHALL APPLY.
6. THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY.
7. UNDERGROUND ELECTRICAL, CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO UTILITY COMPANY STANDARDS AND PROJECT SPECIFICATIONS, WHICH EVER IS MORE STRINGENT.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
10. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
12. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
13. THE CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION AND PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.

LANDSCAPE NOTES:

(SUBJECT TO COORDINATION WITH LANDSCAPE DRAWINGS. IN CASE OF CONFLICT, THE LANDSCAPING DRAWINGS SHALL GOVERN.)

1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNERS REPRESENTATIVE BEFORE AND AFTER PLANTING.
2. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSPECTION AND ACCEPTANCE, AND SHALL HAVE AT LEAST 80% HEALTHY GROWTH AT THE END OF THE GUARANTEED PERIOD.
3. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER, AND MULCH.
4. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS USED IN A CURBED ISLAND, THE BARK SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
5. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING AS SHOWN.
6. PARKING AREA PLANTED ISLANDS TO HAVE A MINIMUM OF 4" TOPSOIL. REMOVE ALL CONSTRUCTION DEBRIS BEFORE TOPSOILING. TOPSOIL SHALL BE PLACED TO TOP OF CURB.
7. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER OR THE OWNERS REPRESENTATIVE PRIOR TO ARRIVAL ON THE SITE.
8. PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
9. THE CONTRACTOR SHALL LOCATE, VERIFY, AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTINGS AND UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
10. NO SUBSTITUTION OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
12. SEE PLANTING DETAILS FOR WEED BARRIER INFORMATION.
13. ALL PLANTING LOCATED AT THE ENTRANCE TO THE PROJECT OR AT INTERSECTIONS WITHIN THE SITE WILL BE MAINTAINED AND WILL NOT EXCEED 3 FEET IN HEIGHT WITHIN A TRIANGLE FORMED 25' INTO THE DRIVEWAY AND 25' ALONG THE TRAVEL WAY.

EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES. CLEARING AND GRADING LIMITS SHALL BE STAKED BY THE CONTRACTOR BASED ON THE LIMITS OF GRADING SHOWN ON THE DRAWINGS AND ACCEPTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. AFTER THE CLEARING AND GRADING LIMITS HAVE BEEN ACCEPTED, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE CONSTRUCTION ENTRANCES ASSOCIATED WITH THE PROJECT.
2. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE. TEMPORARY/PERMANENT SEED MIXTURES SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL PROJECT PREPARED FOR THIS PROJECT.
3. PRIOR TO PAVING, THE CONTRACTOR SHALL FLUSH SILT FROM ALL STORM LINES.
4. ALL STORM DRAIN INLETS AND OUTLETS NOT IN PAVED AREAS ARE TO RECEIVE RIPRAP PROTECTION APRONS DURING CONSTRUCTION.
5. SILT FENCES SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
6. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCE AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD, SWEEPING OF THE ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR.
7. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO TOPSOIL FOR USE IN LANDSCAPING OPERATIONS.
8. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.
9. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION / SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES AS ENFORCED BY THE MEDEP OR LOCAL AGENCIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.
10. A FULL EROSION/SEDIMENTATION CONTROL PLAN ACCOMPANIES THIS DRAWING SET AND IS ALSO CONTAINED IN THE SITE WORK SPECIFICATIONS.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
12. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS ½ THE STRUCTURE HEIGHT.
13. INSTALL CURLEX EROSION CONTROL MAT OR EQUAL ON ALL SLOPES STEEPER THAN 3:1.
14. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION & SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, CUMBERLAND COUNTY SOIL AND WATER CONVERSATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991"

LEGEND

EXISTING	PROPOSED
ZONING LINE	
EXISTING STRUCTURE	BUILDING
EDGE OF TRAVEL WAY, PAVEMENT, ROADS, DRIVES	PROPERTY LINE
CURBING	RETAINING WALL
PROPERTY LINE	CURBING
EASEMENT LINE	VERTICAL GRANITE*
OVERHEAD ELECTRIC LINES / OVERHEAD WIRES	SLOPED GRANITE*
UNDERGROUND ELECTRIC LINE	EDGE OF PAVEMENT
UNDERGROUND TELEPHONE LINE	GRADING CONTOUR LINE
WATER LINE	SPOT ELEVATION
WATER GATE VALVE	GUARD POST/BOLLARD
STORM DRAIN LINE	POLE WITH LIGHT FIXTURE(S)
SANITARY SEWER LINE	FREESTANDING SIGN
ROADWAY PAVEMENT STRIPING	BARRIER FREE PARKING SYMBOL
GAS	PEDESTRIAN CROSSWALK
FENCE	DIRECTION OF TRAFFIC FLOW
EXISTING CONTOUR LINE	UNDERGROUND TELEPHONE / CABLE
EXISTING WETLANDS	UNDERGROUND ELECTRIC/TELEPHONE
UTILITY POLE	WATER LINE
SIGN	SEWER LINE
LIGHT POLE	GAS LINE
CATCH BASIN	STORM DRAIN LINE
SEWER MANHOLE	HYDRANT
ELECTRICAL/COMMUNICATIONS VAULT	WATER GATE VALVE
ELECTRICAL/COMMUNICATIONS PULL BOX	WATER SHUT OFF VALVE
HYDRANT	MANHOLE
TREES, LANDSCAPING	CATCH BASIN
TREELINE / EDGE OF BRUSH	EXISTING CATCH BASIN TO BE ALTERED
TELEPHONE MANHOLE	RIPRAP
ELECTRICAL MANHOLE	SILT FENCE
TEST BORING	CHAIN LINK OR SAFETY FENCE
WETLANDS	WOOD FENCE
	GUIDE RAIL
	LIMIT OF WORK
	STONE SEDIMENT BARRIER
	TRANSFORMER PAD
	TREE TO BE REMOVED

*OWNER RESERVES THE RIGHT TO MODIFY ALL ONSITE CURBING TO SLIPFORM CONCRETE

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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Drawing Name: GENERAL NOTES & LEGEND

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.1

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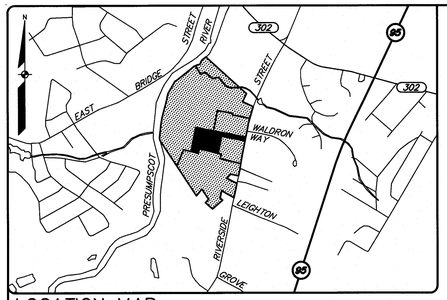


LOCATION MAP

N.T.S.

SURVEYOR'S STATEMENT

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

CHARLES D. MARCHESE, PLS 2009 — JANUARY 23, 2018

EASEMENT LINE TABLE		
LINE	DIRECTION	DISTANCE
E37	S 11°10'09" W	30.17'
E39	N 78°49'51" W	288.53'
E40	N 14°27'20" W	277.08'
E42	S 14°27'20" E	164.78'
E43	N 72°49'13" W	238.38'
E44	S 72°49'13" E	218.47'
E45	N 11°10'09" E	30.00'
E47	N 76°01'12" W	122.53'

N/F CYNTHIA A. PELLERIN & STEVEN G. PELLERIN MAP 13 LOT 13

APPROVAL-CITY OF PORTLAND PLANNING BOARD

1/23/2018 DATE

CHAIRPERSON

LEGEND

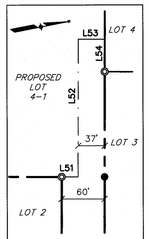
EXISTING

- PROPERTY LINE/R.O.W.
- ABUTTER LINE/R.O.W.
- TIE LINE
- SETBACK
- EASEMENT
- MONUMENT
- IRON PIPE/ROD
- C1/L1 DEED CALL
- BENCHMARK DESCRIPTION WITH ELEVATION — BENCHMARK
- BUILDING
- EDGE PAVEMENT
- EDGE CONCRETE
- EDGE GRAVEL
- EDGE OF WATER
- TREELINE
- --120-- --118-- CONTOURS
- X120.00 SPOT GRADE
- CHAIN LINK FENCE
- G GAS
- W WATER
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- S SANITARY SEWER
- SANITARY MANHOLE
- SD STORM DRAIN
- DECIDUOUS TREE
- CATCH BASIN
- OHU OVERHEAD UTILITY
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- FLOODPLAIN
- ZONE LINE
- ZONE LINE ON PL
- B-1 BORING
- EDGE WETLAND
- WETLANDS
- CURB LINE
- SHEET METAL FENCE
- GUARD RAIL
- CONCRETE BLOCK ENCLOSURE
- SIGN
- G GAS
- GAS GATE VALVE
- GM GAS METER
- TRANSFORMER PAD
- E ELECTRICAL MANHOLE
- RIPRAP
- 5/8" REBAR W/CP TO BE SET
- 8434 STRUCTURE NUMBER
- GRADE STAKE SET
- 3.5" DIAMETER PLANTER

FOR CITY OF PORTLAND USE

PROPERTY CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C5	196.44'	995.68'	S 19°03'50" W	196.12'
C6	41.92'	995.68'	S 12°12'21" W	41.92'

PROPERTY LINE TABLE		
LINE	DIRECTION	DISTANCE
L48	S 13°58'48" W	75.00'
L49	S 76°01'12" E	51.70'
L50	N 10°38'44" E	26.77'



DETAIL PROPOSED RIGHTS-OF-WAY EASEMENT "C" 1" = 100'

N/F PORTLAND TRAILS MAP 13 LOT 11

N/F CITY OF WESTBROOK MAP 52 LOT 202A

PRESUMPSCOT

660.35' N 9°25'10" E

N/F PENDE ASSOCIATES, INC. 13128/174 MAP 321 LOT A-4 MAP 321 LOT A-13 MAP 322 LOT A-3

N 37°9'46" W 401.56'

ZONE RPZ ZONE IH

FLOODPLAIN SEE NOTE 9

LOT 4 PARCEL AREA 28.92 ACRES (LAND TO BE RETAINED BY GIT)

965.91' N 42°56'14" E

N/F CITY OF WESTBROOK MAP 13 LOT 7

RIVER

INV. OUT 12" PVC PIPE EL.: 35.94'

S 23°17'24" W 289.42'

CONSERVATION EASEMENT AREA 21.91 ACRES

#6 PROPOSED OVERFLOW SPILLWAY EASEMENT SEE NOTE 15

N 11°10'09" E 397.90'

337.82'

EASEMENT #8 60' WIDE DRAINAGE EASEMENT TO BENEFIT LOT 1 AREA: 7,263 S.F.

PROPOSED LOT 4-1

#6 EASEMENT (TYPICAL) 30' WIDE DRAINAGE EASEMENT SEE NOTE 16

GRAVEL ROAD

PROPOSED LOT 4-2

SEE NOTE 11

N 37°9'46" W 401.56'

N/F PENDE ASSOCIATES, INC. 13128/174 MAP 321 LOT A-4 MAP 321 LOT A-13 MAP 322 LOT A-3

N 11°10'09" E 337.50'

N/F H FINKLEMAN, INC. 26626/328 MAP 321 LOT A-1-11 MAP 321 LOT A-1-12 MAP 322 LOT A-2

LOT 1

N/F ADDISON CAPITAL, LLC 28176/18 MAP 322 LOT A-8 MAP 323 LOT A-8

LOT 3

S 78°21'16" E 254.63'

N/F PORTLAND WATER DISTRICT ???/??? MAP 321 LOT A-1

S 37°9'46" E 398.61'

S 37°9'46" E 401.56'

112.84'

284.46' S 11°10'09" W

BENCHMARK: BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE ELEVATION: 75.11'

N/F 508 RIVERSIDE STREET, LLC 24189/335 MAP 321 LOT A-3

S 50°39'20" E 50.20'

125.07'

S 11°50'40" W

N/F ANANTA, LLC 28269/255 MAP 322 LOT A-1

LOT 2

S 78°01'12" E 340.66'

PAVED PARKING

534.93'

N 78°49'51" W 388.53'

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

N/F ALPINE REALTY CORP. 26361/1 MAP 321 LOT A-2

S 63°21'12" E 180.41'

S 37°9'46" E 401.56'

N/F PORTLAND WATER DISTRICT 2156/60 MAP 321 LOT A-5

N 78°35'12" W 121.76'

EASEMENT #7 5' WIDE SIDEWALK EASEMENT, SEE PLAN REFERENCE 6A.

#1 PROPOSED SIDEWALK EASEMENT

#4 PROPOSED 40' WIDE AERIAL EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

136.46'

N/F A & M PARTNERS, LLC 31509/177 MAP 321 LOT A-9

237.49'

S 11°10'09" W

200.00'

S 11°10'09" W

378.05'

S 11°10'09" W

ZONE IH ZONE IM

S 78°49'51" E 282.14'

N/F WASTE MANAGEMENT OF MAINE, INC. 10545/154 MAP 324 LOT B-1

145.82'

S 20°7'41" W

168.71'

S 6°2'19" E

N/F MERLEN R. GOUGH 10558/205 2271/395 MAP 321 LOT A-6

RIVERSIDE STREET

BENCHMARK VERTICAL SPIKE SET IN ROOT OF 24" RED OAK ELEVATION: 72.92'

N 314783.78 E 2911087.73 EASEMENT "C" POINT OF BEGINNING N 314842.65 E 2911099.35

GRAPHIC SCALE

100 0 50 100 200

(IN FEET) 1 INCH = 100FT.

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF PORTLAND BY DEED DATED MAY 18, 2010 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 27825, PAGE 68.
2. THE PROPERTY IS SHOWN AS MAP 322 LOT A-1 AND MAP 323 LOTS A-3 & A-5 ON THE CITY OF PORTLAND TAX MAPS AND IS LOCATED IN THE IH ZONING DISTRICT DISTRICT.
3. SPACE AND BULK CRITERIA FOR THE IH ZONING DISTRICT ARE AS FOLLOWS:

MINIMUM LOT SIZE:	NONE	(CORRECTIONAL 10,000 SF)
MINIMUM STREET FRONTAGE:	60 FEET	
MINIMUM FRONT YARD:	25 FEET	
MINIMUM SIDE YARD:	35 FEET	
MINIMUM REAR YARD:	35 FEET	
MAXIMUM BUILDING HEIGHT:	75 FEET	
MAXIMUM IMPERVIOUS SURFACE RATIO:	85%	

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

4. TOTAL AREA OF THE PROPOSED LOT 4-1 IS APPROXIMATELY 4.12 ACRES.
5. BOUNDARY INFORMATION AS DEPICTED HEREON IS BASED ON PLAN REFERENCE 6A, 6B AND 6C HEREON. SEBAGO TECHNICS, INC. HAS DONE A RETRACEMENT SURVEY OF LOT 2 AND A PARTIAL RETRACEMENT OF LOT 1 AND LOT 3 AS DEPICTED THEREON. THE PROPOSED LOT TO BE CONVEYED TO FOREFRONT COMMONS I, LLC BEING A PORTION OF LOT 4 AS DEPICTED ON THE HEREIN REFERENCED PLANS. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON PLAN REFERENCE 6A AND FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. ON THE PROPOSED SUBURBAN PROPANE LOT AND 60-FOOT WIDE RIGHT-OF-WAY IN OCTOBER 2015.
6. PLAN REFERENCES:
   A. "RIVERSIDE SUBDIVISION - SUBDIVISION RECORDING PLAT - OWNER OF RECORD: CITY OF PORTLAND, MAINE, PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101" DATED OCTOBER 7, 2010 BY WOODARD & CURRAN, STAMPED BY JOHN W. SWAN, PLS 1038. THIS PLAN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 210, PAGE 352.
   B. "CONSERVATION EASEMENT PLAN FOR THE TRUST FOR PUBLIC LAND, 116 NEW MONTGOMERY STREET, SAN FRANCISCO, CA 94105 EASEMENT LOCATED RIVERSIDE STREET, PORTLAND, MAINE" DATED MARCH 3, 2010 BY BOUNDARY POINTS, PROFESSIONAL LAND SURVEYING, LLC. THIS PLAN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 210, PAGE 129.
   C. "AMENDMENT TO RIVERSIDE SUBDIVISION LOT #3, (EXISTING CONDITIONS/PROPOSED LEASE AREA & ACCESS/UTILITY EASEMENT PLAN), MAP 323 LOT A008, LUCAS TREE, 636 RIVERSIDE STREET, PORTLAND, MAINE" DATED JANUARY 3, 2014 BY PROMISED LAND SURVEY, LLC. THIS PLAN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 214, PAGE 218.
7. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NGVD29, BASED ON DUAL FREQUENCY GPS OBSERVATIONS. ELEVATIONS WERE CONVERTED TO NGVD29 UTILIZING THE U.S. ARMY CORPS CORPSCON 6.0.1 SOFTWARE, THE CHANGE FROM NAVD88 TO NGVD29 IS +0.688 FEET IN THIS VICINITY.
8. UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
9. PORTIONS OF THE 2ND AMENDED SUBDIVISION AS DEPICTED HEREON DOES FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051 0006 C, HAVING AN EFFECTIVE DATE OF DECEMBER 8, 1998. PORTIONS OF THE SUBDIVISION PROPERTY IN PROXIMITY TO THE PRESUMPSCOT RIVER, IT'S TRIBUTARIES AND ADJACENT AREAS FALL WITHIN A ZONE AE, AREAS OF 100-YEAR FLOOD, HAVING A BASE FLOOD ELEVATION OF 35 IN THE SUBJECT AREA. PROPOSED LOT 4-1 AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA. PROPOSED LOT 4-1 FALLS IN AN UNSHADED ZONE X, AREAS DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOODPLAIN.
10. THE WETLAND DELINEATION AS DEPICTED HEREON IS AS DEPICTED ON PLAN REFERENCE 6A, SEBAGO TECHNICS, INC. HAS NOT PERFORMED AN INDEPENDENT WETLAND SURVEY.
11. THIS LINE REPRESENTS THE LIMITS OF THE TOPOGRAPHIC SURVEY PERFORMED BY SEBAGO TECHNICS, INC. FOR THIS PROJECT. THE REMAINING TOPOGRAPHIC INFORMATION WAS TAKEN DIRECTLY FROM PLAN REFERENCE 6A.
12. THERE ARE NO BUILDINGS LOCATED ON THE PROPOSED PARCEL.
13. PROPOSED LOT 4-1 IS SUBJECT TO DRAINAGE EASEMENTS REFERENCED HEREON AS EASEMENT #8 AS DEPICTED HEREON (60' WIDE DRAINAGE EASEMENT TO BENEFIT LOT 1 AS DESCRIBED IN CCRD BOOK 29103, PAGE 338) AND THE DRAINAGE EASEMENT REFERENCED HEREON AS EASEMENT #6 AS DEPICTED HEREON (30' WIDE DRAINAGE EASEMENT DESCRIBED IN CCRD BOOK 28269, PAGE 304").
14. THE 60' WIDE AND 37' WIDE RIGHTS-OF-WAY (EASEMENT "C") WILL BE OWNED IN FEE BY LOT 4-1. LOTS 2 AND 3 WILL HAVE RIGHTS OF INGRESS AND EGRESS OVER THIS 60' WIDE STRIP OF LAND TO THEIR RESPECTIVE LOTS PURSUANT TO AND IN ACCORDANCE WITH A SHARED ACCESS DRIVEWAY EASEMENT DATED NOVEMBER 1, 2010, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 28269, PAGE 312, AND A SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT DATED NOVEMBER 15, 2010, RECORDED IN THE CCRD BOOK 28269, PAGE 314, AS AMENDED AND RESTATED BY A SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT (AMENDED AND RESTATED) OF NEAR DATE HEREWITH TO BE RECORDED IN THE CCRD (THE "AMENDED AND RESTATED DRIVEWAY MAINTENANCE AGREEMENT"). LOT 4 WILL HAVE RIGHTS OF INGRESS AND EGRESS OVER BOTH THE 60' AND 37' WIDE RIGHTS-OF-WAY AS SET FORTH IN AN EASEMENT RESERVED IN A DEED FROM THE OWNER OF LOT 4 TO THE OWNER OF LOT 4-1 OF NEAR DATE HEREWITH TO BE RECORDED IN THE CCRD, AS SUBJECT TO THE AMENDED AND RESTATED DRIVEWAY MAINTENANCE AGREEMENT AND A SEPARATE SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT FOR THE 37' WIDE RIGHT OF WAY OF NEAR DATE HEREWITH TO BE RECORDED IN THE CCRD, AS MAY BE AMENDED, SUBJECT TO THE TERMS AND CONDITIONS IN THE ABOVE REFERENCED DEED, THESE RIGHTS OF WAY MAY ALSO BE USED FOR PURPOSES OF THE INSTALLATION AND MAINTENANCE OF ALL UTILITIES.
15. STORMDRAIN OVERFLOW EASEMENT AREA: LOT 4-1 SHALL RETAIN RIGHTS AND PERMISSIONS TO ACCESS STORM DRAINAGE EASEMENT AREA FOR THE PURPOSES OF INSPECTION AND MAINTENANCE OF STORMWATER MANAGEMENT EMERGENCY SPILLWAY WHICH WILL BE CONSTRUCTED ON LOT 4. STORMDRAINAGE OVERFLOW EASEMENT AREA SHALL REMAIN FREE OF IMPEDIMENTS FOR THE FREE FLOW DISCHARGE OF STORM WATER FROM THE STORM WATER MANAGEMENT GRASSED UNDER DRAINED SOIL FILTER LOCATED ON LOT 4-1.
16. EXISTING STORM DRAINAGE EASEMENT: LOT 4-1 SHALL RETAIN RIGHTS AND PERMISSIONS TO ACCESS ALL AREAS OF THE STORM DRAINAGE EASEMENT AREA FOR THE PURPOSES OF CONSTRUCTION, CONVEYANCE OF STORMWATER, INSPECTION AND MAINTENANCE OF STORM DRAINAGE PIPES AND APPURTENANCES.
17. APPROVED WAIVERS:

"ON JUNE 28, 2016 FOR APPLICATION 2016-04 7 THE PLANNING BOARD VOTED 7-0 TO FIND, BASED ON THE CONSULTING ENGINEER'S REVIEW, THAT EXTRAORDINARY CONDITIONS EXIST OR UNDUE HARDSHIP MAY RESULT FROM STRICT COMPLIANCE WITH THE TECHNICAL MANUAL STANDARD (SECTION 5.III.E) WHICH REQUIRES THAT PROJECTS MUST DETAIN, RETAIN, OR RESULT IN THE INFILTRATION OF STORM WATER FROM 24-HOUR STORMS OF THE 2-YEAR, 10-YEAR, AND 25-YEAR FREQUENCIES SUCH THAT THE PEAK FLOWS OF STORMWATER FROM THE SITE DO NOT EXCEED THE PRE-DEVELOPMENT CONDITION, THAT SUBSTANTIAL JUSTICE AND THE PUBLIC INTEREST ARE SECURED WITH THE PROPOSED VARIATION IN THIS STANDARD, AND THAT THE VARIATION IS CONSISTENT WITH THE INTENT OF THE ORDINANCE, AS STORM WATER DRAINS DIRECTLY INTO THE PRESUMPSCOT RIVER. THE PLANNING BOARD WAIVED THE TECHNICAL MANUAL STANDARD (SECTION 5.III.E) TO ALLOW STORMWATER MANAGEMENT AND DRAINAGE AS PROPOSED IN THE FINAL PLAN."

PROPOSED LOT 4-1 EASEMENT LIST:

1. PROPOSED LOT 4-1 SIDEWALK EASEMENT OVER LOT 2 AT ACCESS EASEMENT "C".
2. PROPOSED LOT 4-1 DRIVEWAY EASEMENT OVER LOT 3 AT ACCESS EASEMENT "C".
3. AMENDED ACCESS EASEMENT "C" OVER PROPOSED LOT 4-1.
4. PROPOSED 40' WIDE AERIAL UTILITY EASEMENT.
5. OVERFLOW SPILLWAY OVER REMAINDER OF LOT 4.
6. EXISTING DRAINAGE EASEMENT OVER PROPOSED LOT 4-1 AND REMAINDER OF LOT 4 AS DEPICTED ON PLAN REFERENCE 6A.
7. SIDEWALK EASEMENT ALONG LOT 2 AND LOT 3 AT RIVERSIDE STREET AS DEPICTED ON PLAN REFERENCE 6A.
8. EXISTING 60' WIDE DRAINAGE EASEMENT AS DEPICTED ON PLAN REFERENCE 6A.

EASEMENT LINE TABLE		
LINE	DIRECTION	DISTANCE
L51	N 11°10'09" E	23.00'
L52	N 78°49'51" W	191.40'
L53	N 11°10'09" E	37.00'
L54	S 78°49'51" E	45.00'

PROPERTY LINE TABLE		
LINE	DIRECTION	DISTANCE
L38	S 11°10'09" W	60.00'
L41	N 76°01'12" W	119.58'
L46	S 13°58'48" W	75.00'

STATE OF MAINE
CUMBERLAND COUNTY SS REGISTRY OF DEEDS
RECEIVED MAY 9
20 18 AT 10 h 06 Am
M. AND RECORDED IN
PLAN BOOK 218 PAGE 89
ATTEST
REGISTRAR

CHARLES D. MARCHESE, PLS 2009

STATE OF MAINE CHARLES D. MARCHESE No. 2009 PROFESSIONAL LAND SURVEYOR

DESIGNED	CHECKED
CDM	CLB

REV.	BY:	DATE:	STATUS:
H	CDM	01-23-18	REVISIONS PER REVIEW BY ALL PARTIES ATTORNEYS
G	CDM	12-13-17	REVISIONS PER REVIEW BY CITY OF PORTLAND
F	CDM	09-26-17	ADDED EASEMENT LIST
E	CDM	09-26-17	REVISED NOTE 15 AND ADDED NOTE 16 AND NOTE 17
D	CDM	06-14-16	ADDED TIES FOR EXISTING DRAINAGE EASEMENT
C	CDM	06-08-16	ADDED NOTE 15 PER CITY REVIEW COMMENTS
B	CDM	06-08-16	REVISIONS PER REVIEW BY CITY OF PORTLAND DATED 04-12-2016
A	CDM	10-29-15	ISSUED TO CLIENT FOR REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-9556

2ND AMENDED RIVERSIDE SUBDIVISION
FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE
C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION
389 CONGRESS STREET, PORTLAND, MAINE 04101
PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC.
501 DANFORTH STREET PORTLAND, MAINE 04102

PROJECT NO.	SCALE
15254	1" =100'

SHEET 1 OF 1

1523-458.dwg, TAB:1523-458

LOT 4-2
AREA: 7.01 ACRES

N 11°10'09" E 652.10'

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds
MEN'S DORMITORY - 74 Beds
WOMEN'S DORMITORY - 80 Beds
UTILITY/HVAC
DAY ROOM / CAFETERIA (212 SEATS)
KITCHEN 47' x 21'
FOYER
HEALTH CLINIC
OFFICE AREA
MAIN ENTRANCE
CANOPY
LOADING / SERVICE AREA
PLAZA
8 SPACES
14 SPACES
14 SPACES
7 SPACES
62'
60'
42'

SEE LANDSCAPE PLANS FOR YARD AREA DESIGN
RAISED GARDENS / SOCIAL SPACES
PAVEMENT / FLEX SPACE
PAVEMENT / FLEX SPACE
OPEN AIR PAVILION / OUTDOOR SEATING
FIRE ACCESS GATE

6" BOLLARD, TYP.
10' MIN. PAVEMENT SETBACK, TYP.
5' WIDE BITUMINOUS SIDEWALK
20' WIDE RAISED CROSSWALK
HARD SURFACE PLAZA AREA - SEE LANDSCAPE PLANS FOR DETAILS
STANDARD-DUTY PAVEMENT, TYP.
ELECTRIC VEHICLE CHARGING POST, TYP. OF 8
12' WIDE RAISED CROSSWALK
24' WIDE PAVED ACCESS DRIVE
8' WIDE ESPLANADE
12' WIDE BITUMINOUS SIDEWALK
SLIPFORM CONCRETE CURB (TYP.)
12' WIDE RAISED CROSSWALK
GUARDRAIL
EXISTING OVERHEAD LINES TO REMAIN
EXISTING PARKING FOR TRAIL TO REMAIN
TIPDOWN
TIPDOWN
PROPOSED GRANITE CURB
L=95.10'-R=990.18'

PROPOSED SUBURBAN PROPANE LOT 4-1
STORAGE 4,000 SF
OFFICE 7,300 SF
GARAGE 1,100 SF
OFFICE 400 SF

INV. IN 8" HDPE 62.62'
CB 1081 RIM: 65.88'
UNDERGROUND SERVICE TO TOWER
EXISTING 5/8" REBAR, FLUSH
EXISTING 5/8" REBAR, BENT
337.50' S 11°10'09" W
254.65' N 78°49'51" W
254.83' N 79°21'16" W
282.12' N 79°40'15" W
230.89' S 44°57'30" E
161.35' S 76°01'12" E
118.46' S 44°18'24" E
N 45°41'56" E 60.70'
301.08' S 67°10'32" E
S 10°28'13" W 36.16'
S 78°37'47" E 68.00'
INVERT OUT 15" HDPE 52.16'
INVERT OUT 15" HDPE 52.16'

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

N/F
MERLEN R. GOUGH
1055B/205
2271/395
MAP 323 LOT A-6

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

REMAINDER OF LOT 4
CONSERVATION EASEMENT AREA
21.91 ACRES

#1 PROPOSED SIDEWALK EASEMENT
PROPOSED LOT 4-1 PROPOSED 60' WIDE RIGHT-OF-WAY
#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14
#4 PROPOSED 40' WIDE AERIAL EASEMENT
#2 PROPOSED DRIVEWAY EASEMENT
EXISTING SIDEWALK EASEMENT GRANTED TO CITY OF PORTLAND
PROPOSED SIDEWALK EASEMENT A ±123 S.F.
PROPOSED DRIVEWAY EASEMENT B ±19 S.F.
EASEMENT "C" POINT OF BEGINNING
N 314783.78 E 2911087.73
N 314842.65 E 2911099.35
N 22°18'27" W 23.08'
S 78°49'51" E 4.98'
N 47°34'01" E 12.98'
S 11°10'09" W 12.26'
S 11°10'09" W 7.23'

EXISTING EASEMENT LINE
EXISTING EASEMENT LINE
EASEMENT
EASEMENT
EXISTING PROPERTY LINE
RIP RAP AREA
WETLANDS FROM SURVEY PLAN REFERENCE 6A
GRAVEL DRIVEWAY
WOOD SIGN POST
WOOD SIGN POST
METAL POST
METAL POST
RIVERSIDE STREET

ZONING ANALYSIS

Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

VERTICAL GRANITE CURB
SLIPFORM CONCRETE CURB

SIGN LEGEND

R1-1 30"x 30" [A] — STOP
R7-8 12"x 18" [B] — RESERVED PARKING
R7-8 12"x 18" [C] — RESERVED PARKING VAN ACCESSIBLE
R8-3a 24"x 30" [D] — NO PARKING
R5-11 30"x 24" [E] — AUTHORIZED VEHICLES ONLY
– [F] — VISITOR PARKING

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

50 0 25 50 100
1 inch = 50 ft.

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB | Draft: CDD | Date: JUNE 2021
Checked: SRB | Scale: AS NOTED | Job No.: 3824.01
File Name: 382401-SITE.dwg

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Drawing Name: SITE LAYOUT PLAN
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-3.0

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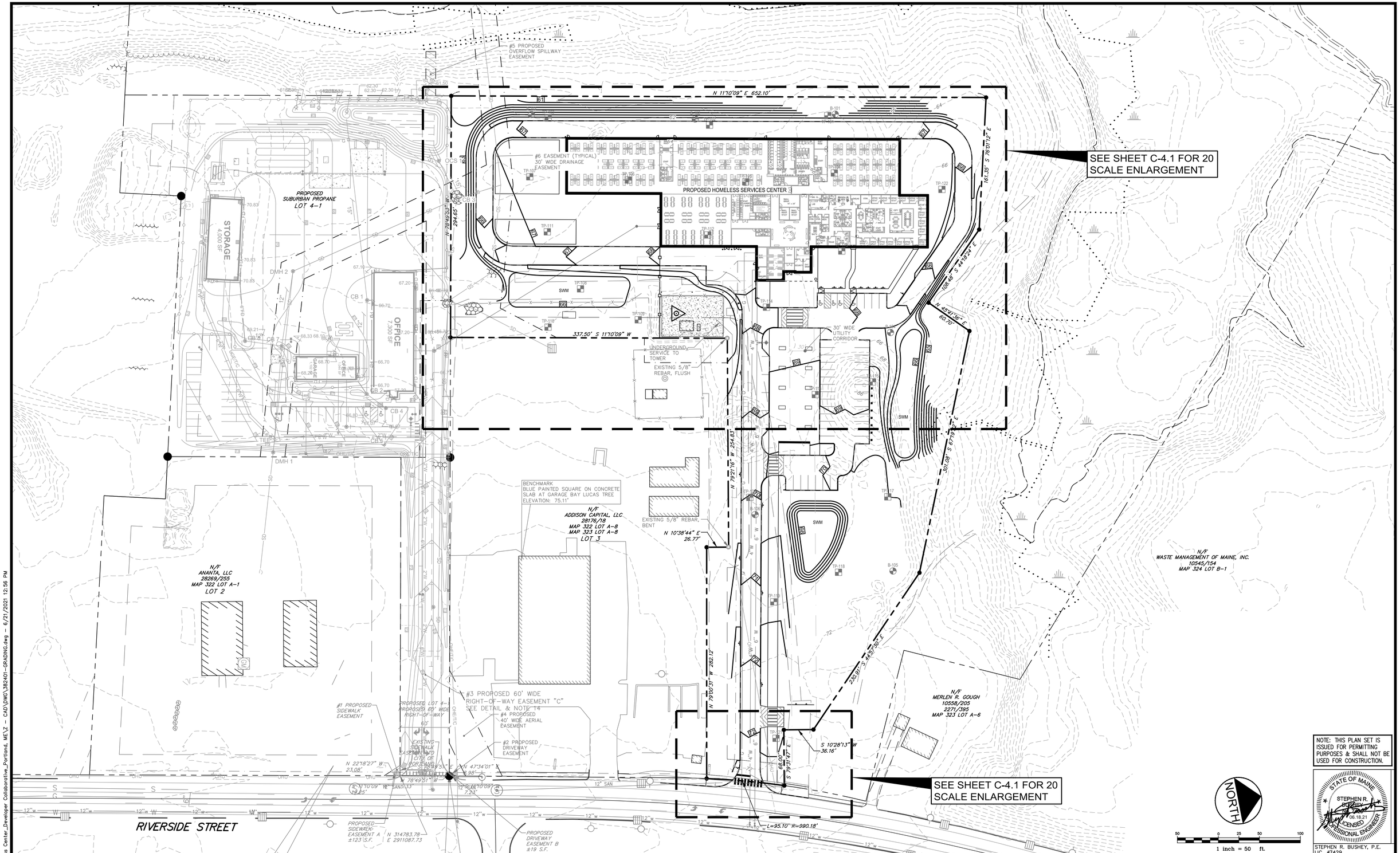

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY No. 7429 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E. LIC. #7429

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Rev.	Date	Revision

Rev.	Date	Revision
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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-GRADING.dwg		

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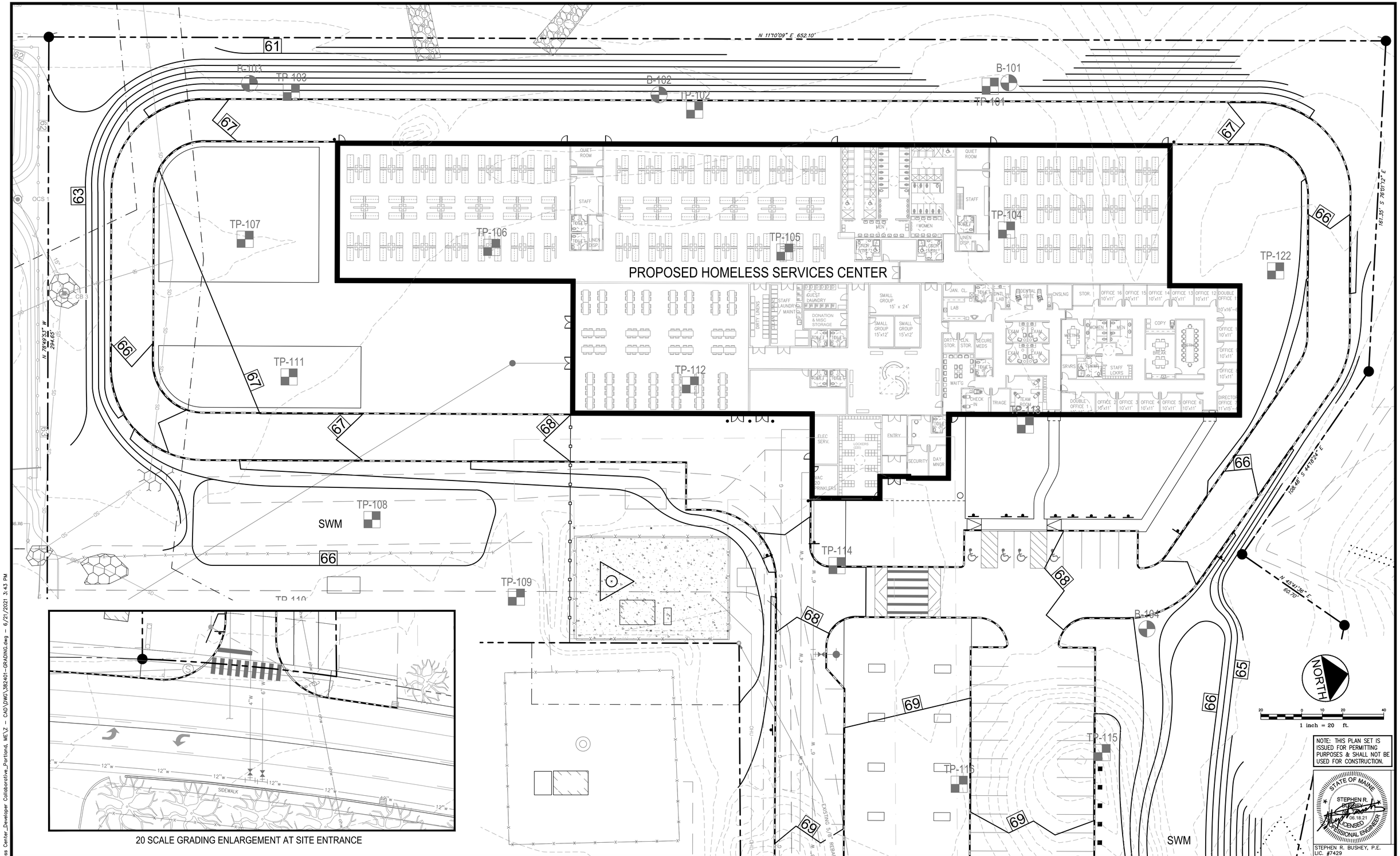
Drawing Name: GRADING & DRAINAGE PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.0



20 SCALE GRADING ENLARGEMENT AT SITE ENTRANCE

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing Name: 20 SCALE GRADING ENLARGEMENTS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.1

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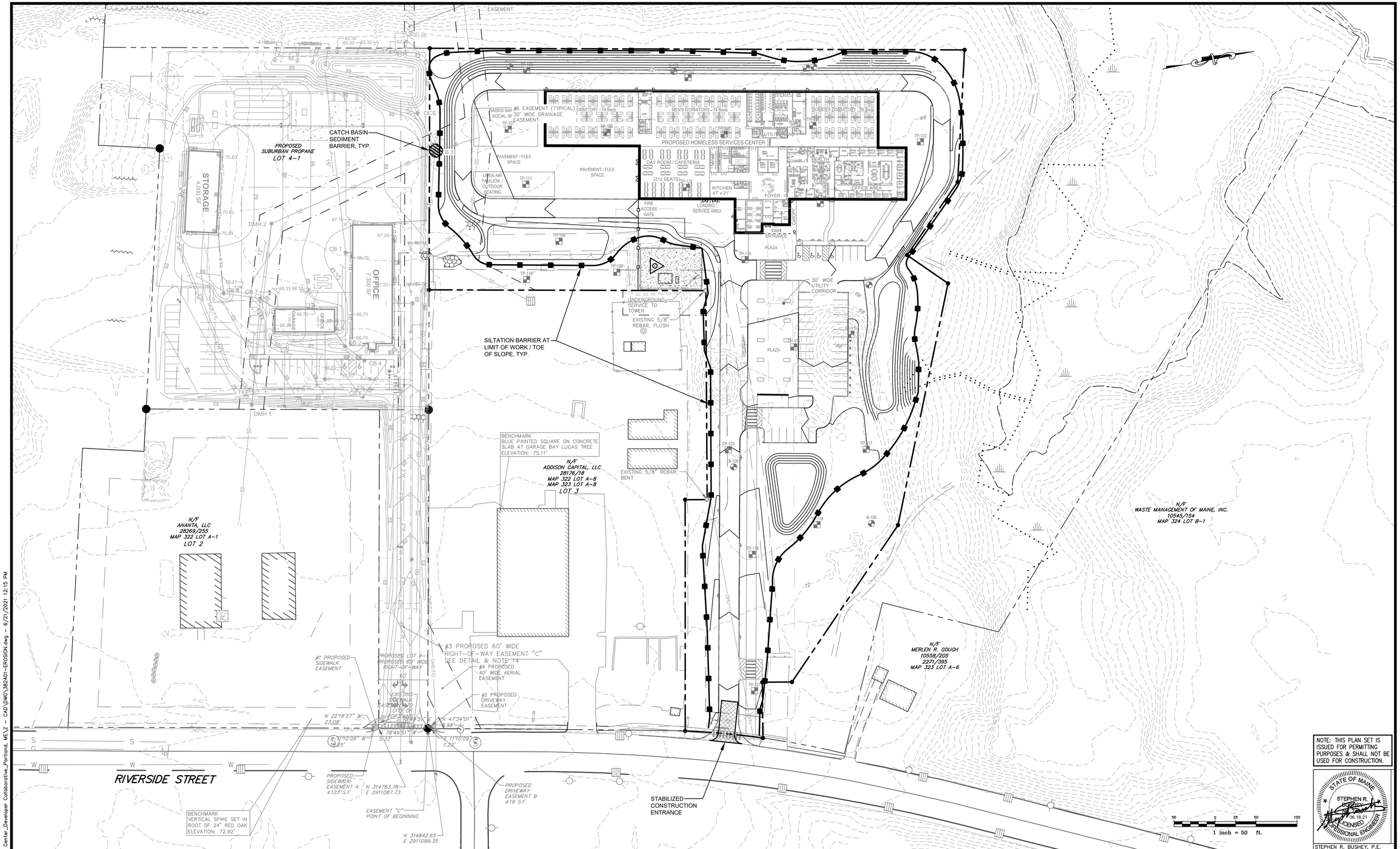

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY No. 7429 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E. LIC. #7429

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Rev.	Date	Revision

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File Name: 382401-EROSION.dwg		

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Drawing Name: EROSION & SEDIMENT CONTROL PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-5.0

N 11°10'09" E 652.10'

PROPOSED SUBURBAN PROPANE LOT 4-1

STORAGE 4,000 SF

OFFICE 7,300 SF

GARAGE

PROPOSED HOMELESS SERVICES CENTER

RAISED GARDENS / SOCIAL SPACES

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION / OUTDOOR SEATING

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 30 Beds

UTILITY

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH

OFFICE AREA

FIRE ACCESS GATE

LOADING / SERVICE AREA

CANOPY

MAIN ENTRANCE

PLAZA

EXIT INVERT T.B.D.

PROP. SMH 1
RIM =
INV. IN (6") = 64.11
INV. OUT (6") = 64.01

6" SAN

8" SAN

8" SAN
L = 286'
S = 0.005

337.50' S 11°10'09" W

20' x 10' GENERATOR PAD

9' x 9' TRANSFORMER PAD

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

EX. SMH 3
RIM = 66.63
INV. IN (8") = 62.58
INV. OUT (8") = 62.48
(RECONSTRUCT CHANNEL FOR NEW INLET)

30' WIDE UTILITY CORRIDOR

HYDRANT ASSEMBLY

N 28°49'53" W 294.65'

161.35' S 76°01'12" E

108.46' S 44°18'24" E

N 45°41'36" E 60.70'

301.08' S 67°19'24" E

N 79°21'16" W 254.83'

N 79°00'31" W 282.12'

S 79°31'47" E 68.00'

S 10°28'13" W 36.16'

230.91' S 44°57'30" E

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8" REBAR, BENT

N 10°38'44" E 26.77'

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

SMH 2

EX. SMH 2
RIM = 73.64
INV. IN (8") = 61.25
INV. OUT (8") = 61.15

SMH 3

SMH 4

SMH 1

WYE

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

RIVERSIDE STREET

EX. DROP SMH 1
RIM = 73.64
INV. IN (8") = 60.27
INV. IN (12") = 53.88
INV. OUT (12") = 53.87

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

L=95.10' R=990.18'

12" x 4" TEE AND VALVE (DOMESTIC)

12" x 6" TEE AND VALVE (FIRE)

50 0 25 50 100
1 inch = 50 ft.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-UTIL.dwg		

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207.772.2515

Drawing Name: UTILITY PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-6.0

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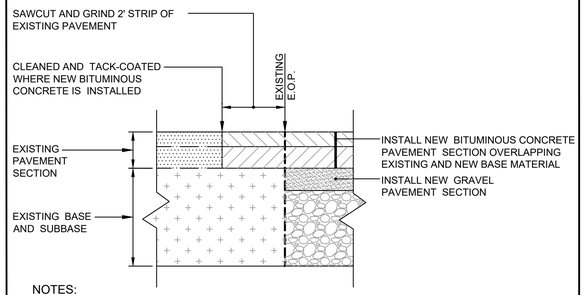
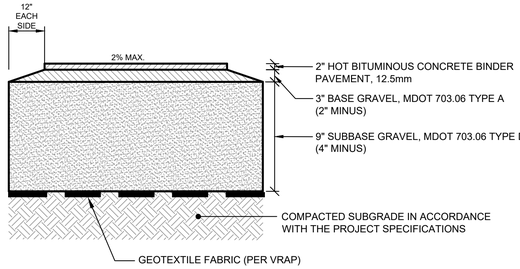


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

(A) TYPICAL PAVEMENT SECTION NEW PAVEMENT ADJACENT TO EXISTING PAVEMENT

N.T.S.

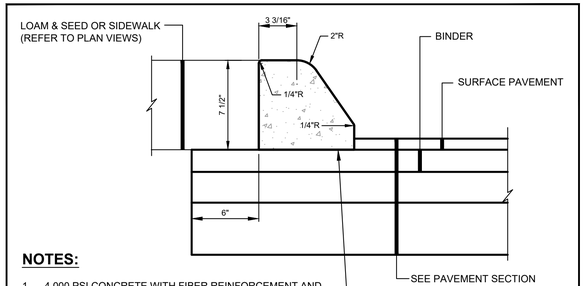


NOTES:

1. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
2. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS.

(B) BITUMINOUS CONCRETE SIDEWALK SECTION FOR SITE INSTALLATION

N.T.S.



NOTES:

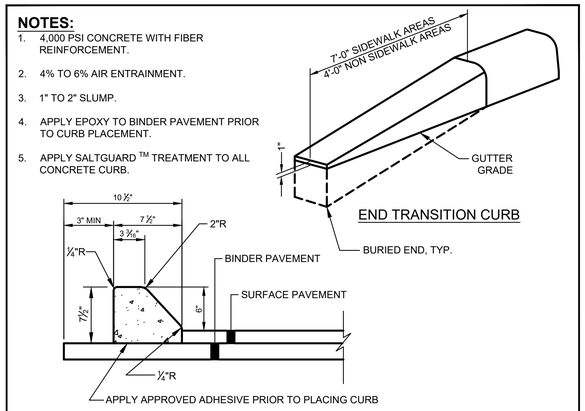
1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT AND SAWCUT JOINTS AT NO MORE THAN 30' SPACING
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD™ CHLORIDE INHIBITOR TO ALL NEW CONCRETE CURBING UPON COMPLETION OF CURING PERIOD.
6. ALL TIPDOWNS SHALL HAVE REINFORCEMENT TO AVOID CRACKING. TIPDOWNS SHALL HAVE NO MORE THAN 1/2" REVEAL AT THE END.

(C) DIRECT TO BINDER SLIPFORM CONCRETE CURB

N.T.S.

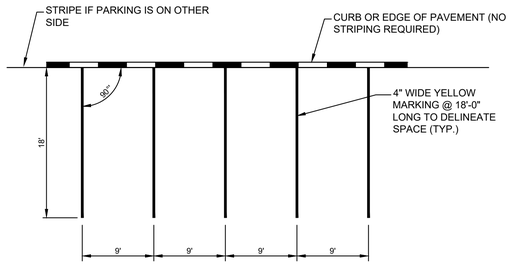
NOTES:

1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT.
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD™ TREATMENT TO ALL CONCRETE CURB.



(D) EXTRUDED SLIPFORM SLOPED CONCRETE CURB DETAIL

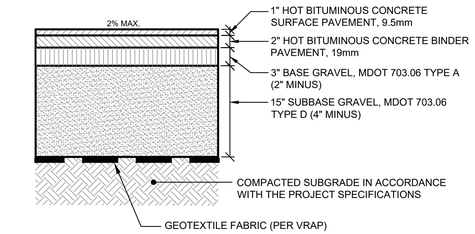
N.T.S.



NOTE:
WHEN PARKING IS ON A CURVE THE NARROWEST PORTION OF THE PARKING STALL SHALL MEET THE WIDTH SHOWN.

(E) STANDARD PARKING STALL STRIPING

N.T.S.

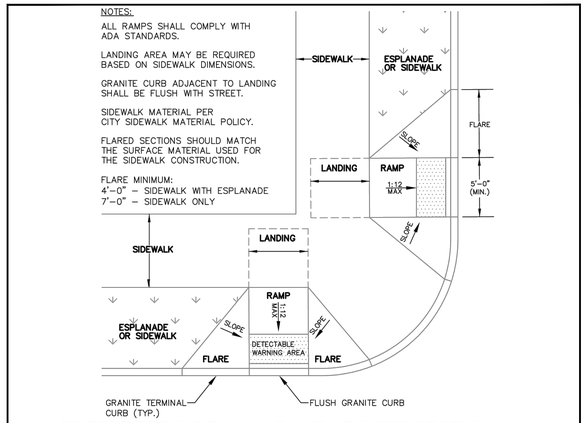


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS AND DRIVEWAYS.

(F) STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT SECTION

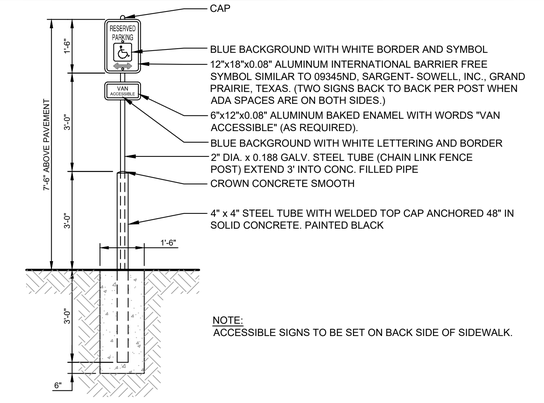
N.T.S.



(G) PREFERRED SIDEWALK RAMP AT INTERSECTION

N.T.S.

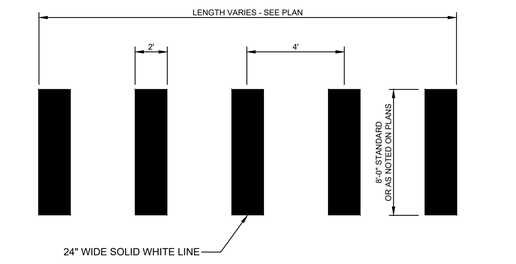
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTE:
ACCESSIBLE SIGNS TO BE SET ON BACK SIDE OF SIDEWALK.

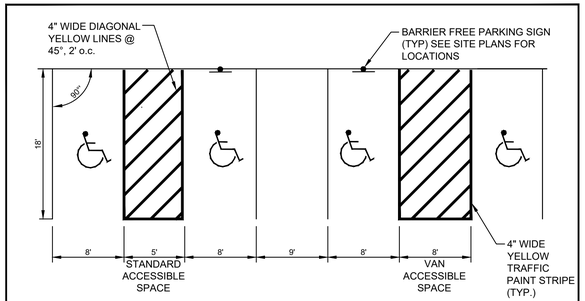
(H) BARRIER FREE PARKING SIGN

N.T.S.



(I) CROSSWALK STRIPING DETAIL

N.T.S.



NOTES:

1. ONE IN EIGHT BARRIER FREE SPACES (MIN.) MUST BE VAN ACCESSIBLE. THIS HAS BEEN PROVIDED FOR ON THE SITE LAYOUT PLAN.
2. BARRIER FREE GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN PARKING STALL. SYMBOL TO BE PAINTED ON BLUE NON-SKID BACKGROUND.

(J) TYPICAL BARRIER FREE PARKING STALL DIMENSIONS

N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: SITE DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.0

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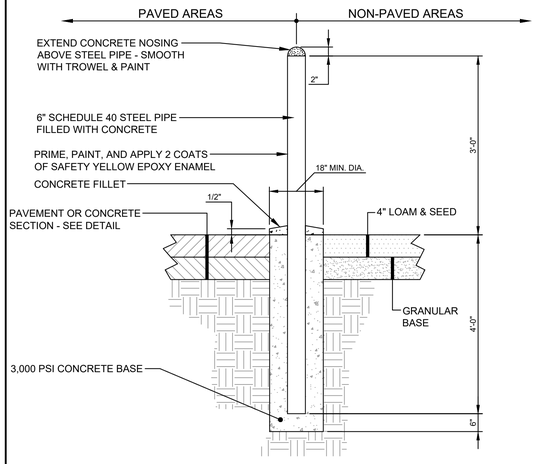

A PIPE BOLLARD DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

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Project: **Homeless Services Center**
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Drawing No. C-8.1

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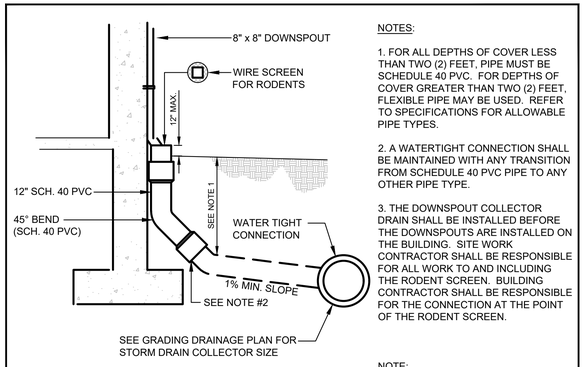


NOTES:

1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.

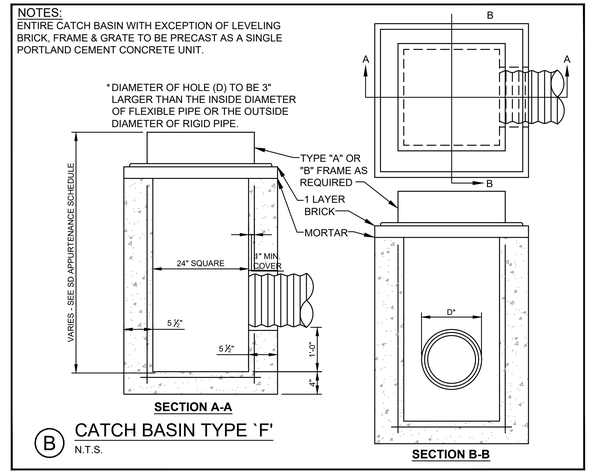
2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

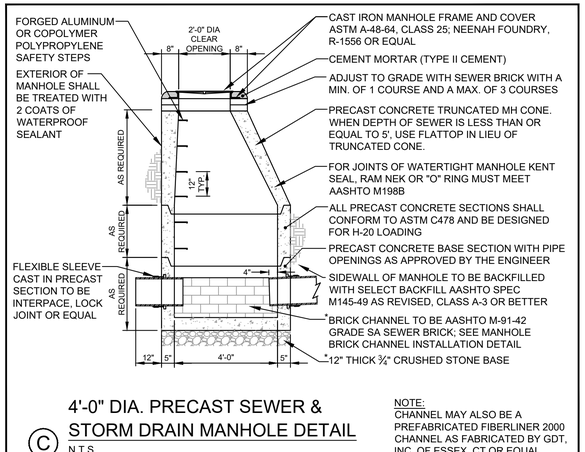
NOTE:
ARCHITECT MAY ELECT TO USE INTERNAL ROOF DRAINS - REFER TO ARCHITECTURAL PLANS

(A) ROOF DRAIN DETAIL
N.T.S.

NOTES:
ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK, FRAME & GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT.

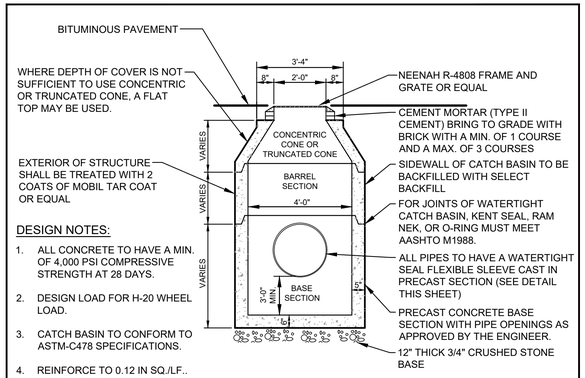


(B) CATCH BASIN TYPE `F'
N.T.S.



(C) 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL
N.T.S.

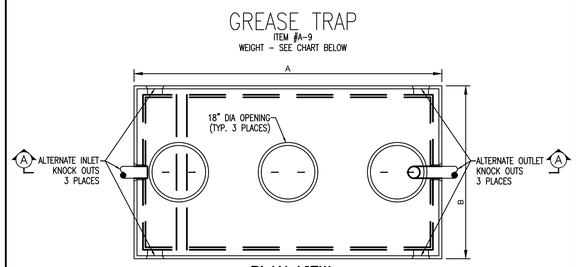
NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

(D) 4'-0" PRECAST CATCH BASIN DETAIL
N.T.S.

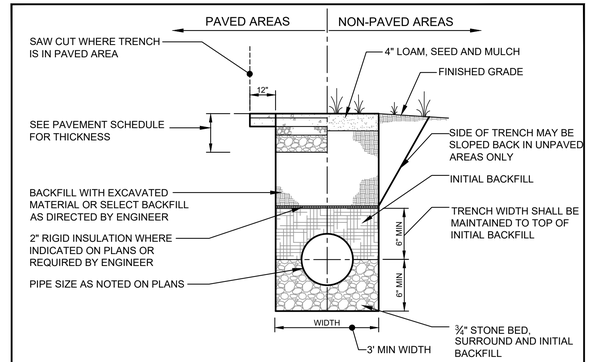


LIQUID CAPACITY	A	B	C	D	WEIGHT	ITEM #	HEAVY DUTY ITEM #
750	8'-6"	4'-10"	42"	52"	7400 LBS	A-901	A-901HD
1000 REG	8'-6"	4'-10"	55 1/2"	64"	8100 LBS	A-902	A-902HD
1000 LB	10'-6"	6'-4"	37 1/2"	48"	10,500 LBS	A-903	A-903HD
1500	10'-6"	6'-4"	55 1/2"	64"	11,220 LBS	A-904	A-904HD
2000	10'-6"	6'-4"	65"	74"	12,250 LBS	A-905	A-905HD

DESIGN NOTES:
1 - CONCRETE 4000 PSI AT 28 DAYS.
2 - INLET BAFFLE IS PRECAST AS ONE UNIT WITH THE TOP SECTION OF THE SEPTIC TANK.
3 - TANKS REINFORCED WITH 6X6X10 G.A. WIRE.
4 - KEYED JOINTS SEALED WITH ASPHALT SEALANT.
5 - HEAVY DUTY SEPTIC TANK TOPS REINFORCED WITH 1/2" REBAR ON 6" CENTERS EACH WAY.
6 - GREASE FILTER AVAILABLE.

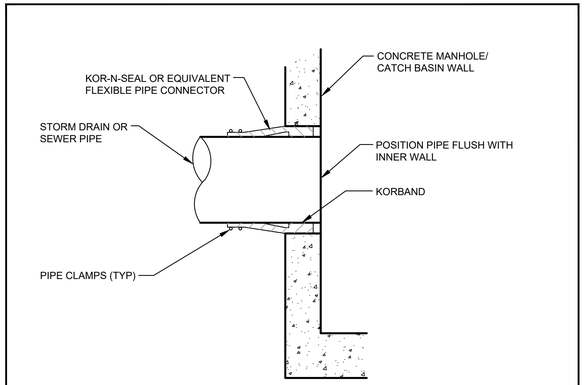
PRECAST CONCRETE PRODUCTS OF MAINE, INC. PHONE (207) 729-1628 FAX (207) 729-8710

(E) GREASE TRAP DETAIL
N.T.S.



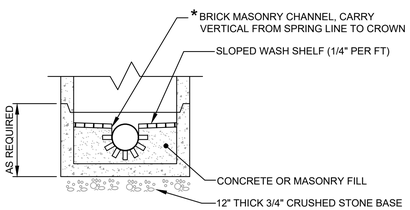
NOTE:
BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

(F) TYPICAL SEWER AND STORM DRAIN TRENCH SECTION
F



(G) PIPE CONNECTION TO PRECAST CONCRETE SANITARY SEWER AND STORM DRAINAGE STRUCTURES
N.T.S.

*NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



NOTES:

1. BRICK CHANNEL TO BE AASHTO M-91-42 GRADE SA SEWER BRICK.*
2. MANHOLE TEST TO BE ACCOMPLISHED AFTER CHANNEL INSTALLATION IS COMPLETE.
3. WHERE THE ALIGNMENT CHANGES OR SIDE FLOW ENTERS THE MANHOLE, CONSTRUCT CHANNEL WITH A SMOOTH RADIAL CHANNEL TO ACCOMPLISH ALL JUNCTIONAL CHANGE OF ALIGNMENT WITHIN MANHOLE.

(H) MANHOLE BRICK CHANNEL INSTALLATION DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

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STEPHEN R. BUSHEY
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Drawing Name: STORM DRAIN & UTILITY DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.2

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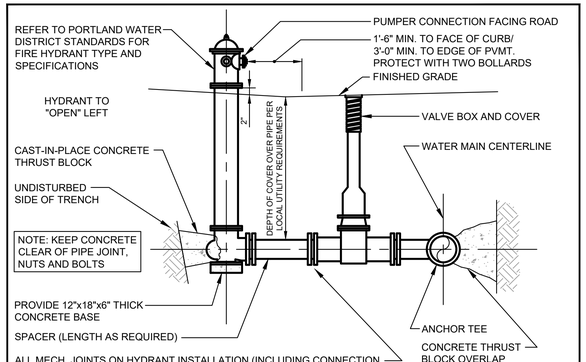


(A) FIRE HYDRANT INSTALLATION DETAIL
N.T.S.

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.

2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.

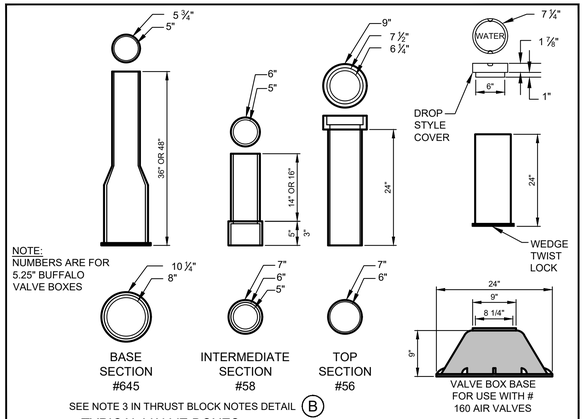
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.

4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING.™

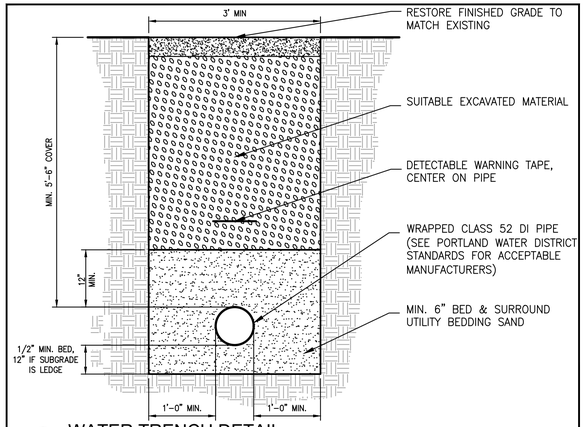
BEARING SURFACE REQUIRED IN SQUARE FEET

PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
6"/8"	5.0	5.0	5.0	6.5	5.0
12"	11.5	11.5	11.5	20.0	22.0

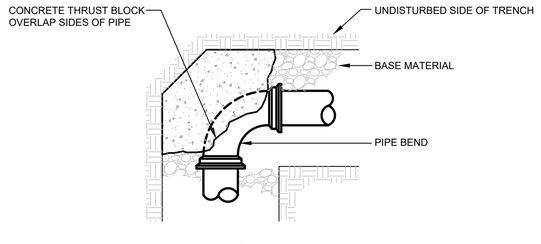
(B) THRUST BLOCK NOTES
N.T.S.



(C) TYPICAL VALVE BOXES
N.T.S.

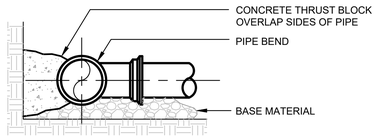


(D) WATER TRENCH DETAIL
N.T.S.



PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

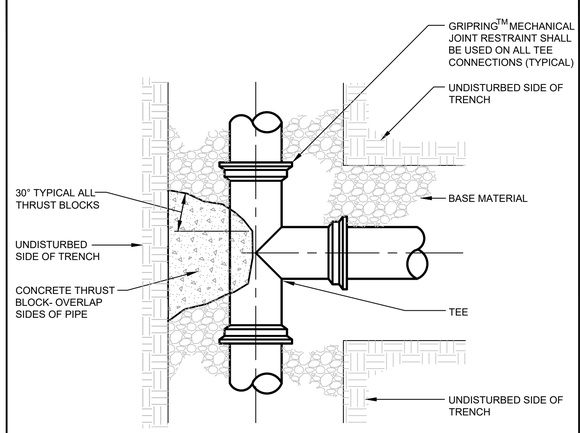
THRUST/RETAINER GLAND SCHEDULE		
¼ BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK WITH GRIPRING™ MECHANICAL JOINT RESTRAINT
⅛ BEND	(45°)	THRUST BLOCK w/ GRIPRING™
1/16 BEND	(22 ½°)	THRUST BLOCK w/ GRIPRING™
1/32 BEND	(11 ¼°)	THRUST BLOCK w/ GRIPRING™

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

NOTES:

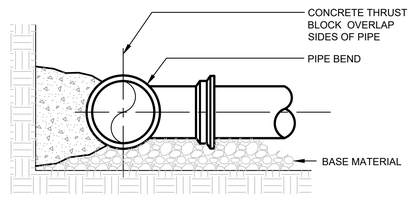
1. THE PORTLAND WATER DISTRICT MAY HAVE INSPECTION FEES AND REQUIRE OBSERVATION OF ALL PIPING INSTALLATION BEFORE BURIAL. REFER TO SPECIFICATIONS.
2. FOR WATER MAIN LAYOUT SEE SHEET C-5.0.
3. FOR WATER MAIN TRENCH SEE DETAILS ON THIS SHEET.
4. REFER TO PORTLAND WATER DISTRICT SPECIFICATIONS FOR TESTING AND CHLORINATION REQUIREMENTS.
5. ALL HYDRANTS AND VALVES TO BE EPOXY COATED, NUTS AND BOLTS TO BE STAINLESS STEEL.
6. SERVICE RODS FOR DOMESTIC SERVICE OR AIR VALVES TO BE STAINLESS STEEL.

(E) TYPICAL THRUST BLOCK PLACEMENT BENDS
N.T.S.



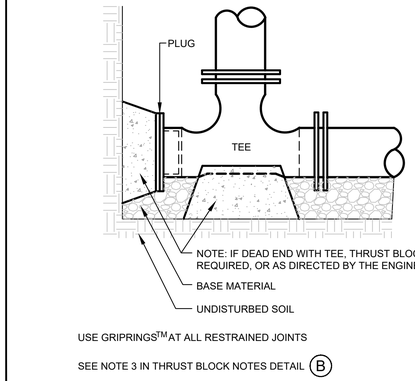
PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

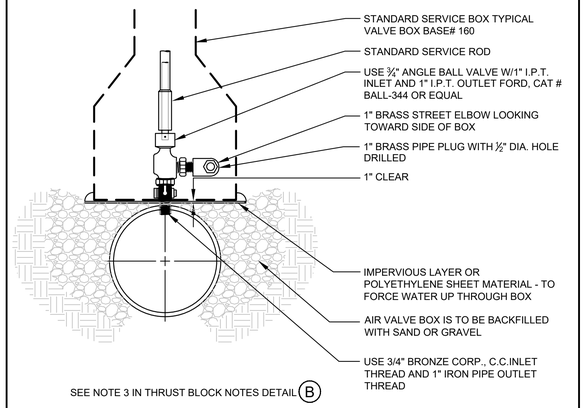
(F) TYPICAL THRUST BLOCK PLACEMENT ON TEES
N.T.S.



USE GRIPRINGS™ AT ALL RESTRAINED JOINTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (B)

(G) STANDARD TEE BLOCKING DETAIL
N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (B)

TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT-LB.	LENGTH OF WRENCH IN *
2 - 3	5/8	45 - 60	8
4 - 24	3/4	75 - 90	10
30 - 36	1	85 - 100	12
42 - 48	1 1/4	105 - 120	14

* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

(H) TYPICAL AIR VALVE SECTION (1")
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: WATER DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.3

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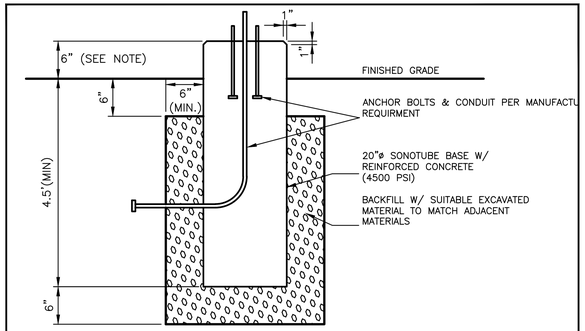
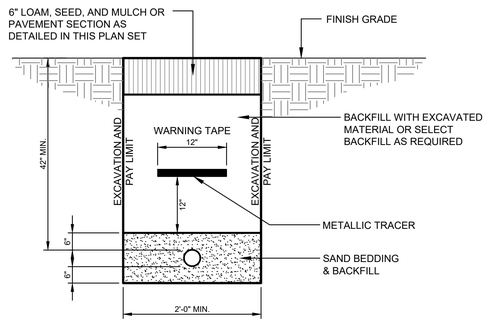


NOTES:

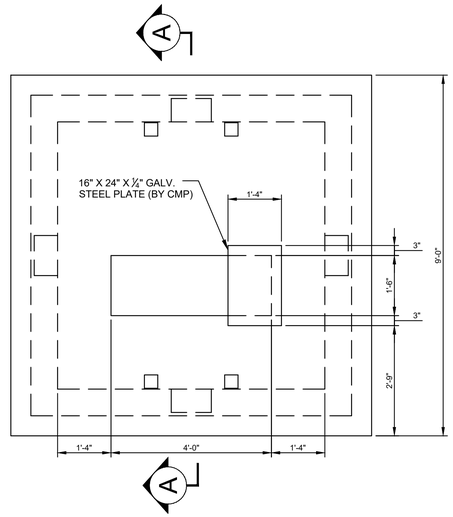
1. ALL LIGHT POLE BASES TO BE SET 6" ABOVE GRADE (MINIMUM) AND LIGHT BOLLARD BASES SHALL BE SET 3" ABOVE GRADE. OR AS DESCRIBED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL CONFIRM PRIOR TO ANY POLE INSTALLATIONS.
2. BASE SIZE TO BE CONFIRMED WITH THE LIGHT POLE SUPPLIER.

(A) TYPICAL PARKING LOT LIGHTING POLE FOUDATION
N.T.S.

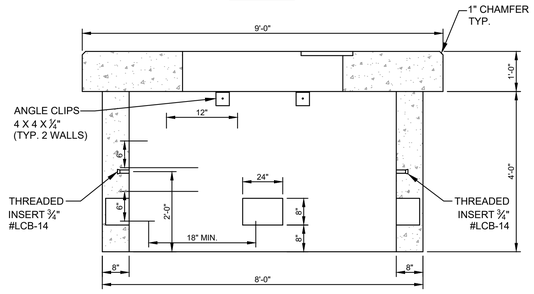


NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

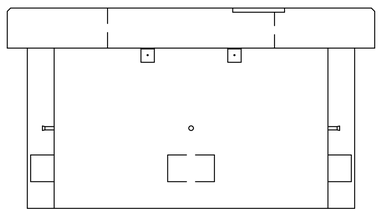
(E) GAS SERVICE TRENCH SECTION
N.T.S.



PLAN VIEW



SECTION VIEW

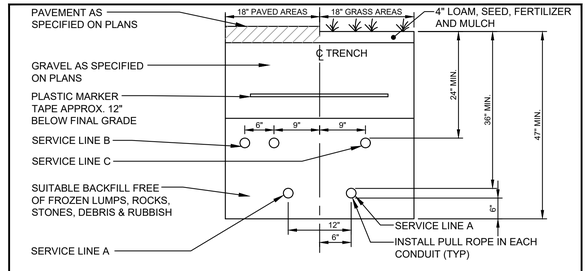


END VIEW

NOTES:

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT.
2. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS, AS MANUFACTURED BY SUPERIOR CONCRETE OR EQUAL.
3. FINAL SIZING TO BE BY ELECTRICAL DESIGNER.
4. ONE 8" x 24" KNOCKOUT PROVIDED EACH WALL.
5. FOR 750 - 5000 KVA THREE PHASE TRANSFORMER.
6. FINISH GRADE SHALL BE GRADED TO ALLOW SURFACE WATER TO FLOW AWAY FROM THE PAD.

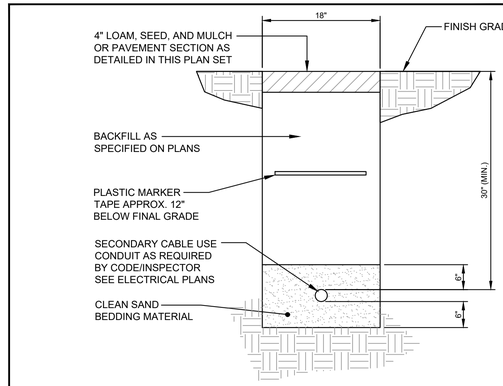
(B) 9'-0" TRANSFORMER PAD
N.T.S.



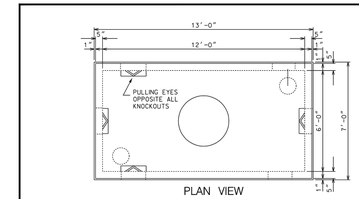
NOTES:

1. FOR CONDUIT TYPES AND SIZES SEE ELECTRICAL PLAN

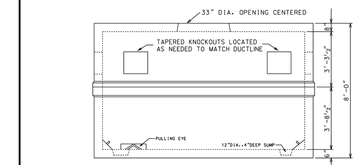
(C) UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS
N.T.S.



(F) SECONDARY ELECTRICAL TRENCH DETAIL
N.T.S.

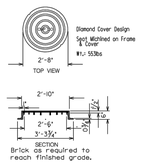


PLAN VIEW



SIDE VIEW

MANHOLE DETAIL
N.T.S.
(Ref.Types 38Y)

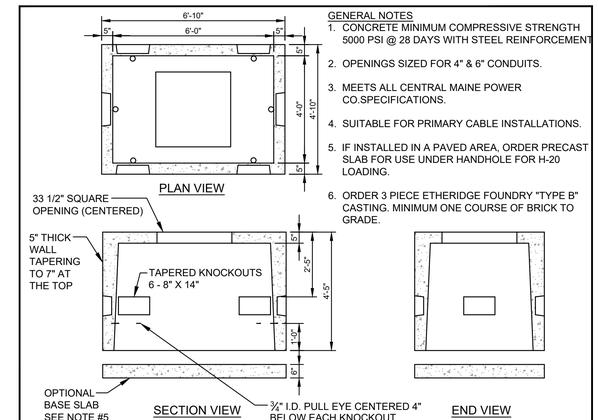


COVER DETAIL
N.T.S.

NOTES

1) Vault shall be designed to withstand H20 wheel loading with 6 inches of overburden. The design shall also comply with the strength requirements of National Electrical Safety Code Section 323a. Provide design calculations signed by a State of Maine Registered Professional Engineer upon Request
2) Joints sealed with asphalt.
3) Mountings for cable racks etc. cast in wall by further plans or field locates.
4) Manhole shall be set on a suitable gravel base.
5) Cables are to be racked along one wall only.

(D) PRECAST CONCRETE 38Y MANHOLE
N.T.S.



GENERAL NOTES

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 5000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT
2. OPENINGS SIZED FOR 4" & 6" CONDUITS.
3. MEETS ALL CENTRAL MAINE POWER CO.SPECIFICATIONS.
4. SUITABLE FOR PRIMARY CABLE INSTALLATIONS.
5. IF INSTALLED IN A PAVED AREA, ORDER PRECAST SLAB FOR USE UNDER HANDHOLE FOR H-20 LOADING.
6. ORDER 3 PIECE ETHERIDGE FOUNDRY "TYPE B" CASTING. MINIMUM ONE COURSE OF BRICK TO GRADE.

(G) SPLICE BOX DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
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Drawing Name: ELECTRIC & UTILITY DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.4

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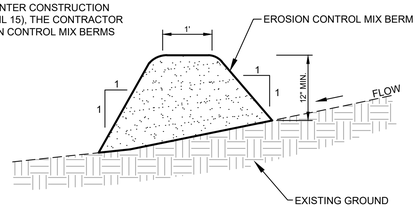
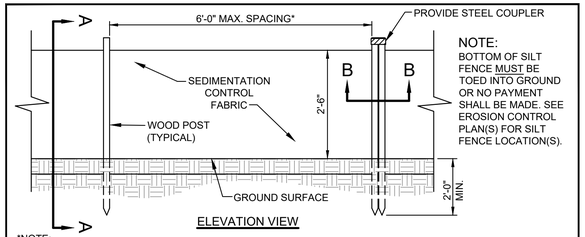
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- PH SHALL FALL BETWEEN 5.0 AND 8.0.

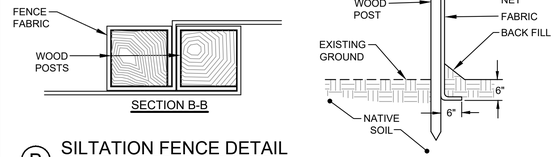
(A) EROSION CONTROL MIX BERM DETAIL
N.T.S.



NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND OR NO PAYMENT SHALL BE MADE. SEE EROSION CONTROL PLAN(S) FOR SILT FENCE LOCATION(S).

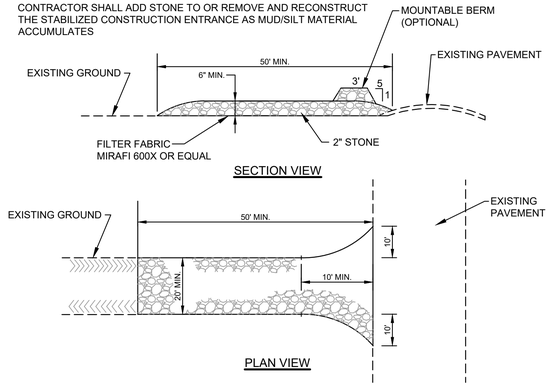
ELEVATION VIEW

*NOTE:
THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6', UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT, A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".

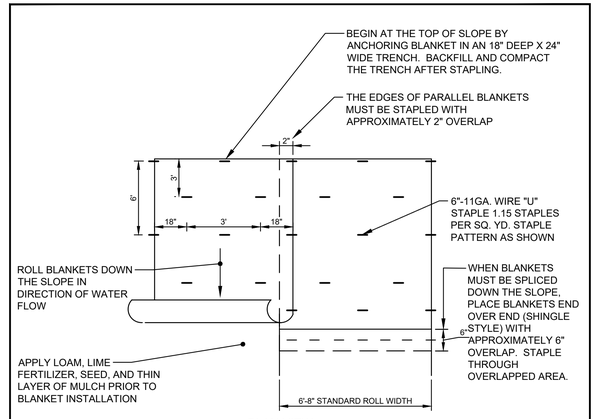


(B) SILTATION FENCE DETAIL
N.T.S.

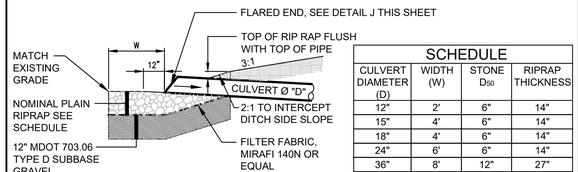
NOTE:
CONTRACTOR SHALL ADD STONE TO OR REMOVE AND RECONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES



(C) STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



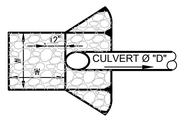
PLAN VIEW



SECTION VIEW

SCHEDULE

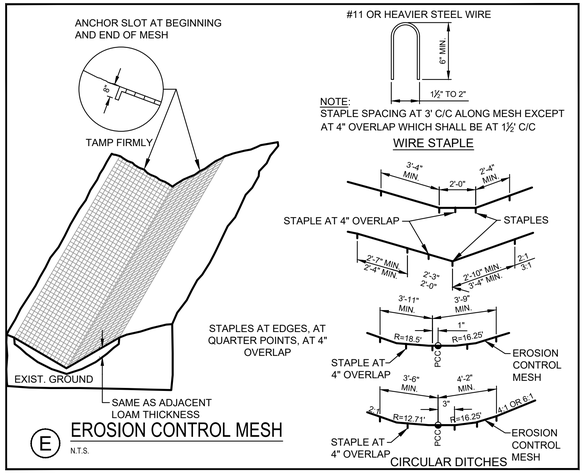
CULVERT DIAMETER (D)	WIDTH (W)	STONE D_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"



PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(D) PIPE/CULVERT INLET APRON
N.T.S.

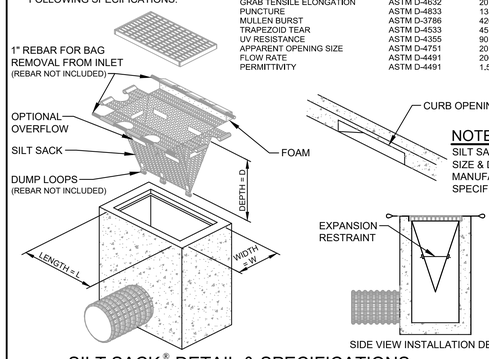


(E) EROSION CONTROL MESH
N.T.S.

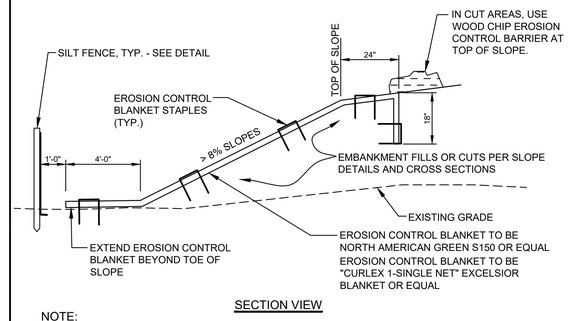
NOTE: THE SILT SACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HIGH-FLOW SILT SACK ® (FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1



(F) SILT SACK ® DETAIL & SPECIFICATIONS
N.T.S.

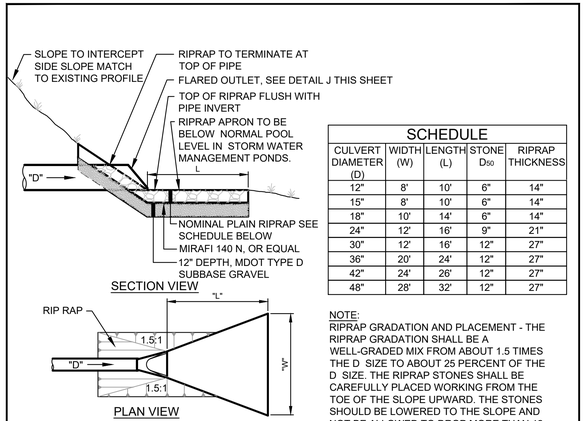


SECTION VIEW

NOTE:
EROSION CONTROL BLANKET STAPLE SIZE AND DISTRIBUTION PER MANUFACTURER'S SPECIFICATIONS.

NOTES:
1. IF GRASS CATCH IS NOT 75% BY SEPTEMBER 1, ADD #4 REBARS @ 3'-0" ROWS @ 3' CENTERS. REMOVE OR DRIVE REBARS 3" BELOW GRADE IN SPRING FOLLOWING TURF ESTABLISHMENT.
2. MULCH RATE TO BE 1/2 THE RATE OTHERWISE SPECIFIED.

(G) EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL
N.T.S.



SECTION VIEW

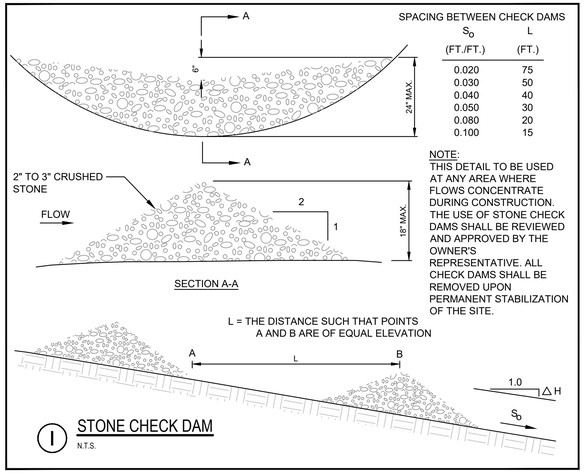
SCHEDULE

CULVERT DIAMETER (D)	WIDTH (W)	LENGTH (L)	STONE D_{50}	RIPRAP THICKNESS
12"	8'	10'	6"	14"
15"	8'	10'	6"	14"
18"	10'	14'	6"	14"
24"	12'	16'	9"	21"
30"	12'	16'	12"	27"
36"	20'	24'	12"	27"
42"	24'	26'	12"	27"
48"	28'	32'	12"	27"

PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(H) PIPE/CULVERT OUTLET APRON
N.T.S.

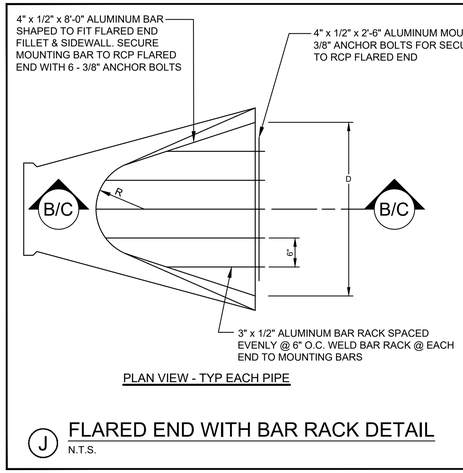


SPACING BETWEEN CHECK DAMS

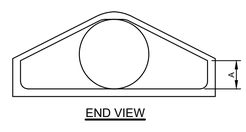
S_O (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15

NOTE:
THIS DETAIL TO BE USED AT ANY AREA WHERE FLOWS CONCENTRATE DURING CONSTRUCTION. THE USE OF STONE CHECK DAMS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL CHECK DAMS SHALL BE REMOVED UPON PERMANENT STABILIZATION OF THE SITE.

(I) STONE CHECK DAM
N.T.S.



DIA.	A	B	C	D	E	R
18"	9"	2'-3"	3'-10"	3'-0"	2½"	12"
24"	9½"	3'-7½"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7¾"	5'-0"	3½"	15"
36"	15"	5'-3"	2'-10¾"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-6"	4½"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"
54"	27"	5'-5"	2'-11"	7'-6"	5½"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"



NOTE:
JOINTS MAY BE FURNISHED WITH EITHER BELL & SPIGOT OR TONGUE & GROOVE ENDS. CULVERT END SECTIONS SHALL CONFORM TO MDOT STANDARD SPECS.

(J) FLARED END WITH BAR RACK DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
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Drawing Name: EROSION CONTROL DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
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Drawing No. C-8.5

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1.3.5 EROSION CONTROL MEASURES AND SITE STABILIZATION

THE PRIMARY EMPHASIS OF THE EROSION/SEDIMENTATION CONTROL PLAN, WHICH WILL BE IMPLEMENTED FOR THIS PROJECT, IS AS FOLLOWS:

- DEVELOPMENT OF A CAREFUL CONSTRUCTION SEQUENCE.
- RAPID REVEGETATION OF DENUDED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
- RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID RILL AND GULLY EROSION.
- THE USE OF ON-SITE MEASURES TO CAPTURE SEDIMENT (HAY BALES/ STONE CHECK DAMS/SILT FENCE, ETC.)

THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED WITHIN THIS REPORT. FOR FURTHER REFERENCE, SEE THE LATEST EDITION OF THE MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS.

A. DEWATERING

WATER FROM CONSTRUCTION TRENCH DEWATERING SHALL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 50 FEET OF A PROTECTED NATURAL RESOURCE. DEWATERING DISCHARGE SHALL NOT BE DIRECTED ACROSS ADJACENT PROPERTIES IN A CONCENTRATED MANNER.

B. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION.

(a) **INSPECTION AND CORRECTIVE ACTION**. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

(b) **MAINTENANCE**. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

(c) **DOCUMENTATION**. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO CITY STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

C. TEMPORARY EROSION CONTROL MEASURES

TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED BY THIS REPORT AND AS SHOWN ON THE PLAN SET FOR THE PROJECT. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE OWNER, THE CITY OF PORTLAND, OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.

THE FOLLOWING MEASURES ARE PLANNED AS TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

1. CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO EACH CONSTRUCTION AREA.

2. SILTATION FENCE OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF- BORNE SEDIMENTS UNTIL GRASS AREAS ARE REVEGETATED. THE SILT FENCE AND/OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THIS PACKAGE AND INSPECTED AT LEAST ONCE A WEEK AND BEFORE AND IMMEDIATELY AFTER A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE OR BERM LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. WOOD WASTE COMPOST BERMS ARE NOT TO BE USED ADJACENT TO WETLAND AREAS THAT ARE NOT TO BE DISTURBED.

3. STRAW OR HAY MULCH INCLUDING HYDROSEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND OCTOBER 15TH ON SLOPES OF LESS THEN 15 PERCENT SHALL BE ANCHORED BY APPLYING WATER; MULCH PLACED ON SLOPES OF EQUAL TO OR STEEPER THAN 15 PERCENT SHALL BE COVERED BY A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. FABRIC NETTING AND STAPLES SHALL BE USED ON DISTURBED AREAS WITHIN 50' OF LAKES, STREAMS, AND WETLANDS REGARDLESS OF THE UPSTREAM SLOPE. MULCH PLACED BETWEEN OCTOBER 15TH AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT SHALL BE COVERED WITH A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SLOPES STEEPER THAN 3:1 AND EQUAL TO OR FLATTER THAN 2:1, WHICH ARE TO BE REVEGETATED, SHALL RECEIVE CURLEX BLANKETS BY AMERICAN EXCELSIOR OR EQUAL. SLOPES STEEPER THAN 2:1 SHALL RECEIVE RIPRAP AS NOTED ON THE PLANS. THE MULCH APPLICATION RATE FOR BOTH TEMPORARY AND PERMANENT SEEDING IS 75 LBS PER 1000 SF AS IDENTIFIED IN ATTACHMENT A OF THIS SECTION. MULCH SHALL NOT BE PLACED OVER SNOW.

4. TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:

a) TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN 100 FEET OF ANY WETLANDS WHICH WILL NOT BE DISTURBED AND SHALL BE LOCATED AWAY FROM DRAINAGE SWALES.

b) STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS BY EITHER TEMPORARILY SEEDING THE STOCKPILE BY A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH, SUCH AS HAY, STRAW, OR EROSION CONTROL MIX.

c) STOCKPILES SHALL BE SURROUNDED BY SEDIMENTATION BARRIER AT THE TIME OF FORMATION.

5. ALL DENUDED AREAS THAT ARE WITHIN 100 FEET OF AN UNDISTURBED WETLAND, WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN A BUILDING PAD, PARKING AREA, OR ACCESS DRIVE SUBBASE AREA, SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. IN OTHER AREAS, THE TIME PERIOD MAY BE EXTENDED TO 7 DAYS.

6. FOR WORK, WHICH IS CONDUCTED BETWEEN OCTOBER 15TH AND APRIL 15TH OF ANY CALENDAR YEAR, ALL DENUDED AREAS, SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX, APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 2 DAYS FOR ALL AREAS.

7. MCCAULEY WAY SHALL BE SWEPT TO CONTROL MUD AND DUST AS NECESSARY. ADDITIONAL STONE SHALL BE ADDED TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

8. DURING GRUBBING OPERATIONS STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS AND AS DIRECTED ON THE EROSION CONTROL PLANS.

9. SILT FENCING WITH A MINIMUM STAKE SPACING OF 6 FEET SHALL BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM 14 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHALL BE ANCHORED. A DOUBLE ROW OF SILT FENCE SHALL BE USED ADJACENT TO WETLANDS.

10. WOOD WASTE COMPOST/BARK BERMS MAY BE USED IN LIEU OF SILTATION FENCING. BERMS SHALL BE REMOVED AND SPREAD IN A LAYER NOT TO EXCEED 3" THICK ONCE UPSTREAM AREAS ARE COMPLETED AND A 90% CATCH OF VEGETATION IS ATTAINED.

11. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR APPROVED SEDIMENT BAGS (SUCH AS SILT SACK). INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHALL BE REMOVED AND THE BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE BARRIER. THE BARRIER SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

12. WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MDOT SPECIFICATIONS - SECTION 637 - DUST CONTROL.

13. LOAM AND SEED IS INTENDED TO SERVE, AS THE PRIMARY PERMANENT REVEGETATIVE MEASURE FOR ALL DENUDED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP. APPLICATION RATES ARE PROVIDED IN ATTACHMENT A OF THIS SECTION. SEEDING SHALL NOT OCCUR OVER SNOW.

D. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.) WILL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED. FABRIC NETTING, ANCHORED WITH STAPLES, SHALL BE PLACED OVER THE MULCH IN AREAS AS NOTED IN **TEMPORARY EROSION CONTROL MEASURES** PARAGRAPH 3 OF THIS REPORT. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

2. ALL STORM DRAIN PIPE OUTLETS SHALL HAVE RIPRAP APRONS AT THEIR OUTLET TO PROTECT THE OUTLET AND RECEIVING CHANNEL FROM SCOUR AND DETERIORATION. INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE APRONS SHALL BE INSTALLED AND STABILIZED TO THE EXTENT PRACTICABLE PRIOR TO DIRECTING RUNOFF TO THE TRIBUTARY PIPE OR CULVERT.

1.4 IMPLEMENTATION SCHEDULE

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO ENSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPTIMIZED:

IT IS ANTICIPATED THAT CONSTRUCTION OF BUILDINGS 2-5 AND RELATED INFRASTRUCTURE WILL COMMENCE IN SUMMER OF 2021 AND BE COMPLETED BY SPRING OF 2022.

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE, THIS SHALL BE ACCOMPLISHED BY LIMITING THE DISTURBED AREA.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ACCESS POINTS FROM PAVED ROADWAYS.

2. INSTALL CATCH BASIN INLET PROTECTION, AND PERIMETER SILT FENCE/WOOD WASTE BERMS PRIOR TO GRUBBING RESPECTIVE AREAS.

3. CLEAR AND GRUB AREA TO BE DEVELOPED. INSTALL STONE CHECK DAMS AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.

4. FOUNDATION PREPARATION AREA SHALL BE EXCAVATED FOR INSTALLATION OF THE BUILDING FOOTINGS. BUILDING WORK WILL BE ON GOING THROUGH THE REMAINDER OF THE PROJECT.

5. COMMENCE INSTALLATION OF DRAINAGE APPURTENANCES.

6. COMMENCE CONSTRUCTION OF PERVIOUS PAVER FILTER/RESERVOIR UP TO CHOKER COURSE, FOCAL POINT FILTERS AND DETENTION PONDS.

7. COMMENCE EARTHWORK AND GRADING TO SUBGRADE.

8. COMMENCE INSTALLATION OF UTILITIES.

9. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.

10. COMPLETE INSTALLATION OF UNDERGROUND UTILITIES TO WITHIN 5' OF THE BUILDINGS.

11. INSTALL LIGHT POLE FOUNDATIONS AND LIGHT POLES.

12. COMPLETE REMAINING EARTHWORK OPERATIONS.

13. COMPLETE INSTALLATION OF CATCH BASINS AND APPURTENANCES.

14. INSTALL SUB-BASE AND BASE GRAVEL WITHIN PARKING FIELDS, WALKWAYS, AND ALL DRIVEWAYS.

15. INSTALL BASE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREA AS WELL AS CONCRETE SURFACES.

16. INSTALL CURBING IN PARKING FIELDS, DRIVEWAYS, AND ALONG THE STREETS AS NEEDED.

17. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.

18. INSTALL PERVIOUS PAVERS AND INFILL STONE, SURFACE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREAS. STRIPE PER PLAN.

19. ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

20. TOUCH UP LOAM AND SEED.

NOTE: ALL DENUDED AREAS NOT SUBJECT TO FINAL PAVING, RIPRAP, OR GRAVEL SHALL BE REVEGETATED.

PRIOR TO CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE FOR THE COMPLETION OF THE WORK, WHICH WILL SATISFY THE FOLLOWING CRITERIA:

1. THE ABOVE CONSTRUCTION SEQUENCE SHOULD GENERALLY BE COMPLETED IN THE SPECIFIED ORDER; HOWEVER, SEVERAL SEPARATE ITEMS MAY BE CONSTRUCTED SIMULTANEOUSLY. WORK MUST ALSO BE SCHEDULED OR PHASED TO REDUCE THE EXTENT OF THE EXPOSED AREAS AS SPECIFIED BELOW. THE INTENT OF THIS SEQUENCE IS TO PROVIDE FOR EROSION CONTROL AND TO HAVE STRUCTURAL MEASURES SUCH AS SILT FENCE AND CONSTRUCTION ENTRANCES IN PLACE BEFORE LARGE AREAS OF LAND ARE DENUDED.

2. THE WORK SHALL BE CONDUCTED IN SECTIONS WHICH SHALL:

a) LIMIT THE AMOUNT OF EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 30 DAYS.

b) REVEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT; OR TEMPORARILY STABILIZED WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL FOR AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND AND 7 DAYS FOR ALL OTHER AREAS. AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW.

c) INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEM AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE. THE DITCHES SHALL BE IMMEDIATELY LINED OR REVEGETATED AS SOON AS THEIR INSTALLATION IS COMPLETE.

1.5 EROSION, SEDIMENTATION AND STABILIZATION CONTROL PLAN

THE EROSION CONTROL PLAN IS INCLUDED IN THE PLAN SET.

1.6 DETAILS AND SPECIFICATIONS

THE EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

1.7 WINTER STABILIZATION PLAN

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT; VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT ANY AREA LEFT EXPOSED CAN BE CONTROLLED BY THE CONTRACTOR. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY/PARKING AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR SHALL INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE SHALL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOODWASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

AN AREA SHALL BE CONSIDERED DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%.

MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAT 8%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 1, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT SHALL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

INSTALL A STONE LINING IN THE DITCH --THE APPLICANT SHALL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT SHALL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

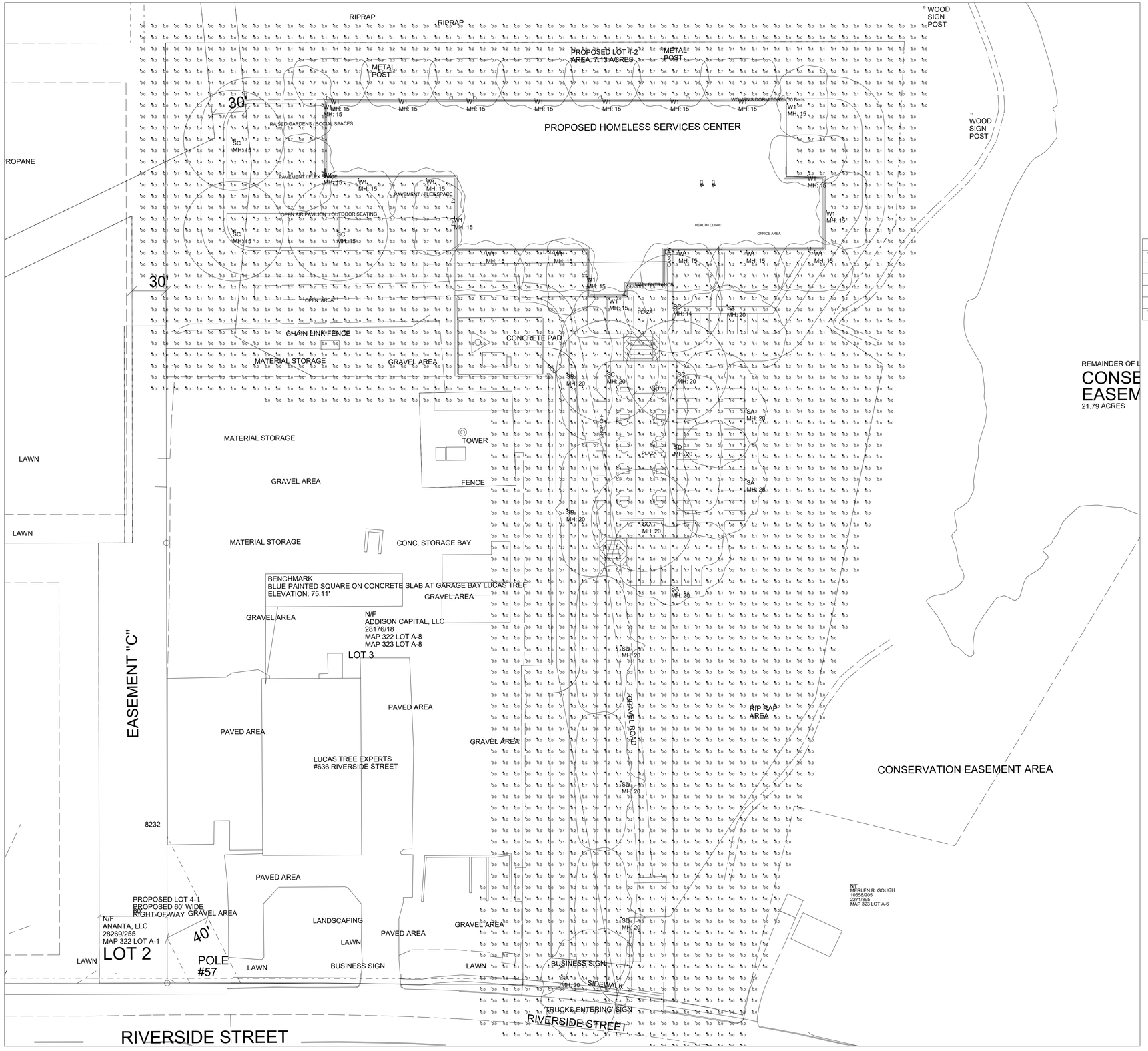
2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT SHALL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. THE DEPARTMENT SHALL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 1, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

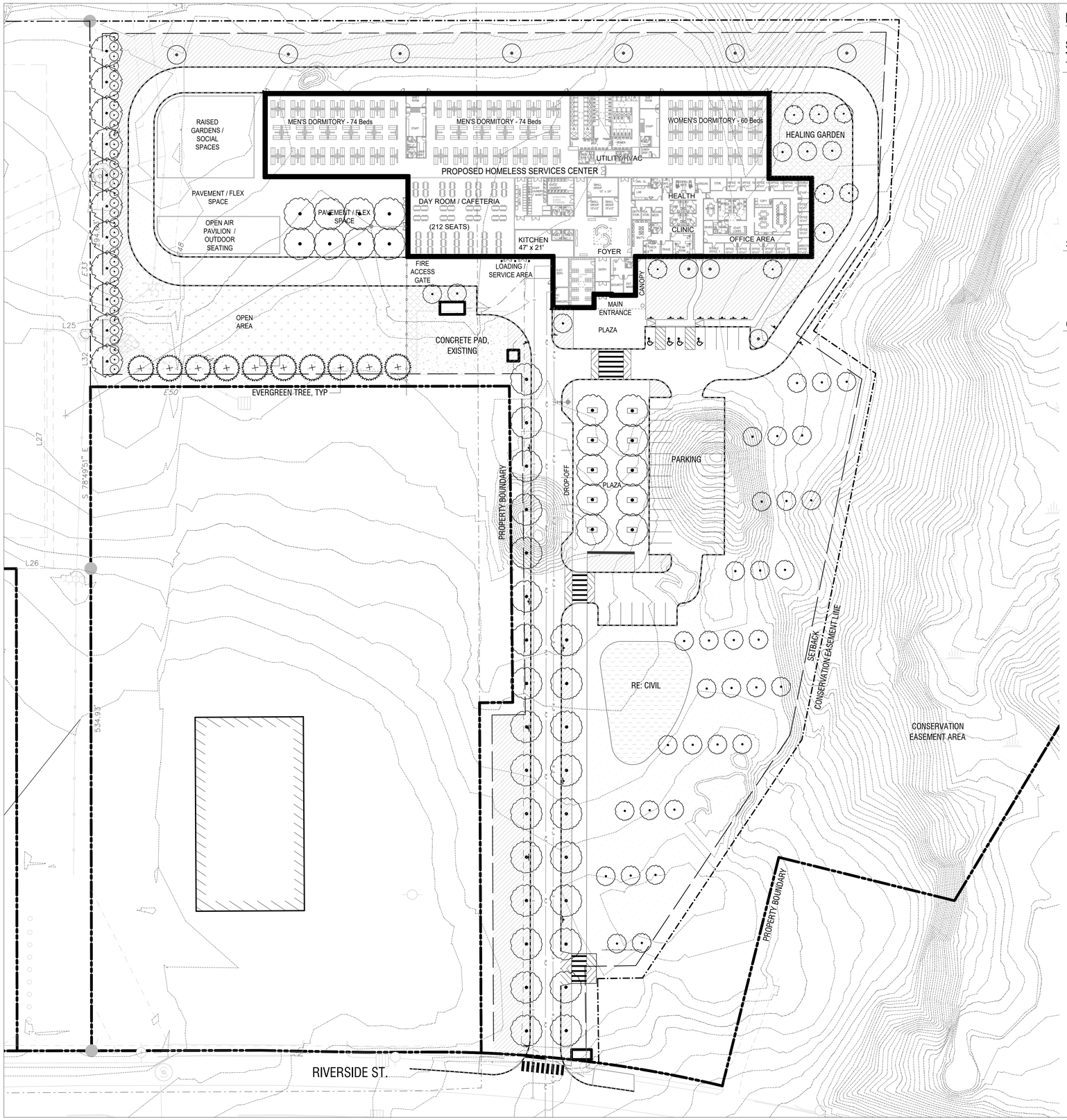
STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY SEPTEMBER 1 THE APPLICANT SHALL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT SHALL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT SHALL COVER THE SLOPE WITH A LAYER OF WOODWASTE COMPOST AS DESCRIBED IN ITEM III OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS STANDARD.

STABILIZE THE SLOPE WITH SOD -- THE APPLICANT SHALL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY SEPTEMBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

STABILIZE THE SLOPE WITH WOODWASTE COMPOST -- THE APPLICANT SHALL PLACE A SIX-INCH LAYER OF WOODWASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOODWASTE COMPOST, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT SHALL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT SHALL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSION


RIPRAP
RIPRAP
WOOD SIGN POST
PROPOSED LOT 4-2
AREA: 7.13 ACRES
METAL POST
METAL POST
30'
W1 MH: 15
WINDOWS FOR MIRICAN TO flock
RAISED GARDENS / SOCIAL SPACES
PROPOSED HOMELESS SERVICES CENTER
WOOD SIGN POST
PROPANE
SC MH: 15
PAVEMENT / FLEX SPACE
PAVEMENT / FLEX SPACE
OPEN AIR PAVILION / OUTDOOR SEATING
HEALTH CLINIC
OFFICE AREA
SC MH: 15
SC MH: 15
W1 MH: 15
W1 MH: 15
W1



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
SHRUBS						
	CO	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
						PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CA	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

0 20 40 80

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS DATE

ISSUE DATE

JUNE 18, 2021

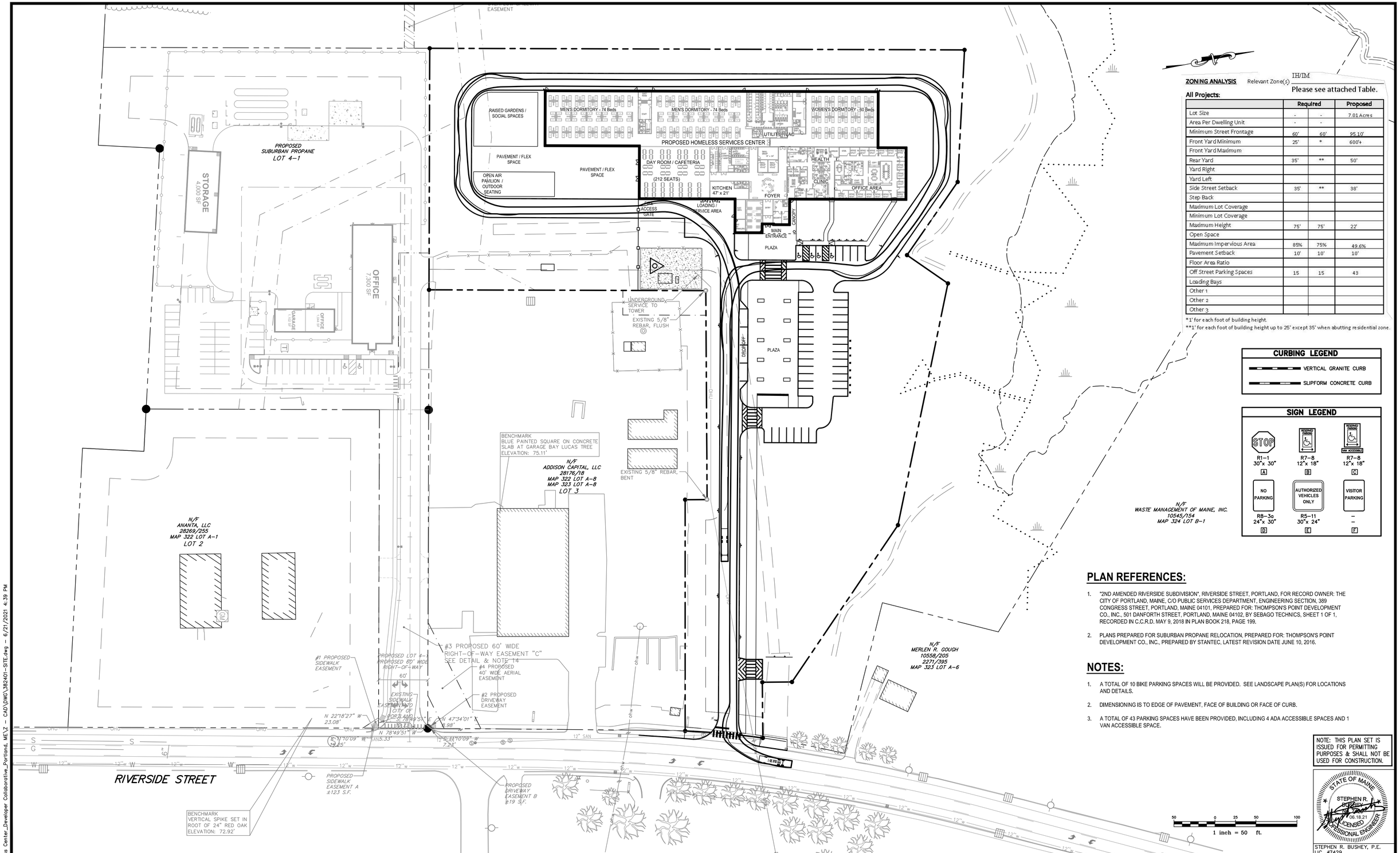
SHEET TITLE

LANDSCAPE PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

STOP R1–1 30"x 30" [A]	RESERVED PARKING R7–8 12"x 18" [B]	RESERVED PARKING VAN ACCESSIBLE R7–8 12"x 18" [C]
NO PARKING R8–3a 24"x 30" [D]	AUTHORIZED VEHICLES ONLY R5–11 30"x 24" [E]	VISITOR PARKING – – [F]

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street – Portland, Maine
Revised August 31, 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile[1] of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[2]
- Sight lines in each direction at driveway exceed 500 feet[3]
- Driveway separation – 176 feet4
- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 – 16892) yields 14 crashes and Critical Rate Factor (CRF) of 0.785. Riverside Street at the site driveway is not a High Accident Location.

[1] Measure from Forest Ave outbound Transit stop to the proposed door is 2,340 LF or 0.44 mile
[2] MDOT AADT information – Riverside St N/O Warren Avenue
[3] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.
[4] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.
[5] From MDOT for period 01/01/2018 to 12/31/2020

- Collision data for the Intersection of Forest Ave and Riverside Street (Node 16892) yields 41 accidents from 01/01/2018 to 12/31/2020. The intersection is considered a high crash location with a CRF of 1.17. The majority of accidents result from vehicles following too close and driver inattention on the Forest/Route 302 inbound leg and on the Riverside northbound leg. Accidents do not appear to be related to pedestrian crosswalk movements.
- Collision data for Forest Avenue from the Riverside Intersection to the Riverton Drive (nodes 16892 to 18508) yields 5 accidents. This location is not identified as a high accident location. Safety measures at the Transit stop crosswalk include a recently installed Rectangular Rapid Flashing Beacon (RRFB) assembly that is push button activated to signal vehicular traffic of crossing pedestrian movements. The project has also committed to wayfinding strategies to include signage and pavement markings to clearly identify the safe walking route for Shelter users from the transit stops to the Shelter.
- Street lighting from the Forest Ave transit stops to the shelter includes a cobra head light over the outbound transit stop and a streetlight on the NW corner of the Riverside intersection. On Riverside Street there are several pole mounted cobra head streetlights. At least four utility poles are available for additional streetlights if necessary to improve lighting over the proposed 6' wide sidewalk on the west side of the street. Additional lighting will be discussed with the City DPW and CMP.
- Nearby Peak hour traffic volumes are summarized as follows:[6]

TABLE 1
TRIP GENERATION

Site	Traffic Count AM Peak Hour (6:30 – 7:30 am)	Traffic Count PM Peak hour (3:45 – 4:45 pm)	ITE[7] AM Peak Trips	ITE PM Peak Trips
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1,229**	**1,652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 6' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These existing bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding

[6] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)
[7] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;
- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals. There are basically 30 runs from METRO Pulse outbound beginning at 5:45 am and ending at 10:40 pm. The Route 2 alternates hourly service to the Hannaford Street on Riverside and to Prides Corner which does reduce overall service to Westbrook and points west. Saturday service is decreased with 16 outbound runs beginning at 6:20 am and ending at 9:40 pm. Sunday service includes 8 runs from 8:20 am to 3:20 pm.

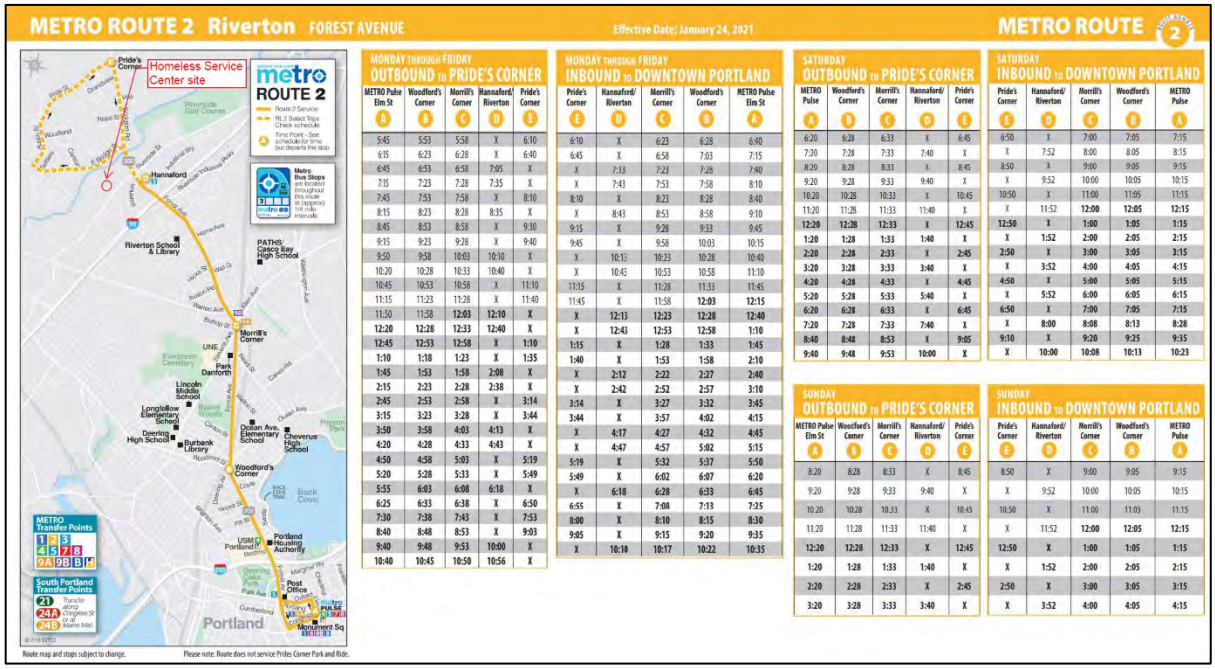


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

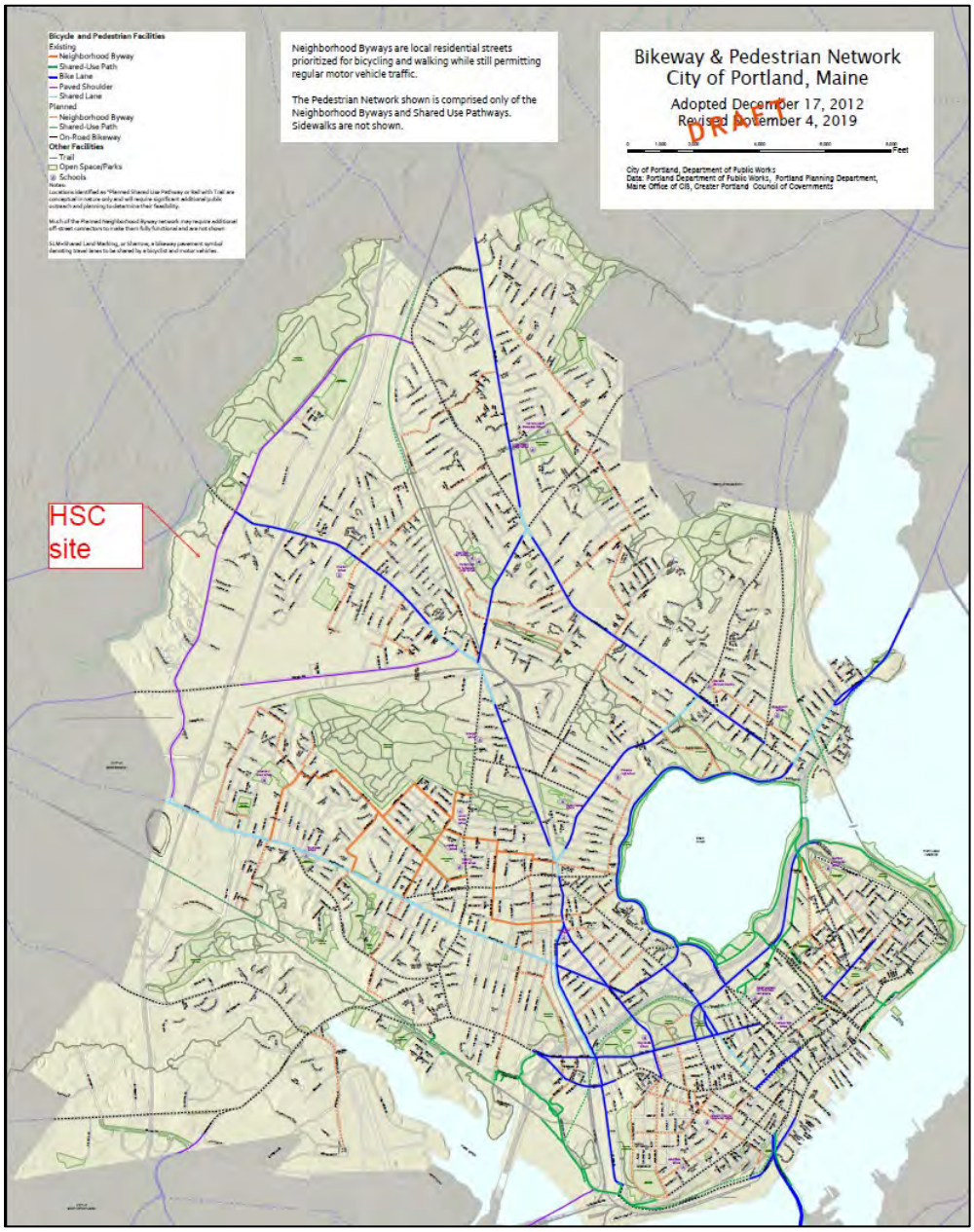


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hour staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however, in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered. A target period of 3 years is set and will be re-evaluated as part of the annual reviews.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN

Agency/Position	Number of Anticipated Vehicles	Time-in	Time-out
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

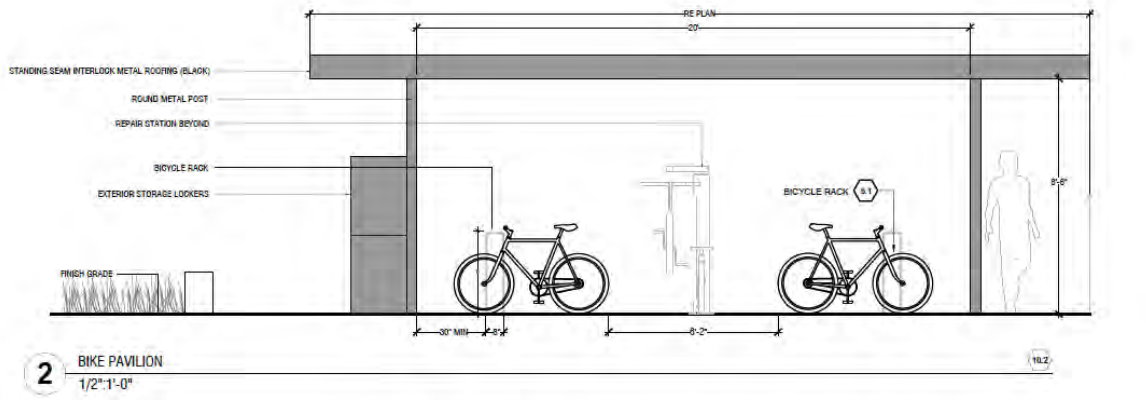
Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.4 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. Currently free bus passes are offered to shelter guests. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Signal improvements will include the implementation of Leading Pedestrian Interval or Blank out signs to prohibit vehicular right turn conflicts with pedestrian crossing movements. Wayfinding signage will be provided at bus stops and along Forest Avenue and Riverside Street to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order. A new bus shelter[8] is proposed for the Inbound transit stop at the Riverton Drive location.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion as detailed as follows:

[8] Per city staff a private fuel station development on Forest Ave is responsible to install the new bus shelter.



The development activity will result in the construction of a new 6' wide City standard paved sidewalk from the Forest Avenue intersection to the site entrance as well as 12' wide paved entry sidewalk into the site. Pedestrian Signal improvements at the Forest Ave/Riverside intersection will be performed for safety and coordination with the existing traffic signals. A restriction on right turns off Forest Ave onto Riverside will be implemented during crossing phases to minimize conflicts with vehicles and pedestrians.

The operators will prioritize the availability of information to guests to include bicycle and walking information. Equipment will be made available to guests to include reflective material for clothing, bicycles and carts. The operator will consider partnership opportunities with support organizations for such things as bike repair training.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; At least 2 spaces closest to the building will be designated for ride share parking; The TDM Coordinator will query staff participants for other possible perks that may interest them that might include gift certificates or similar rewards for promoting and participating in the TDM;
- Implement a ride share registry to match employees interested in ride share;
- Employees are encouraged to bike or walk as part of the City's Wellness Program that offers discounts as part of the health coverage benefits package; and
- Continued participation in the annual Commuter Challenge events.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with staff and guests by acknowledging the challenges associated with TDM goals and objectives that may include lack of access for walking, biking, equipment, ample opportunity for access to transit or other aspects that just make it difficult for guests or staff to participate in TDM strategies. Understanding participant's views and challenges will help inform future modification and improvement to the TDM plan and this will be prioritized as part of the annual reporting.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips

using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

SITE DEVELOPMENT PLANS

FOR

Homeless Services Center

654 RIVERSIDE STREET, PORTLAND, MAINE

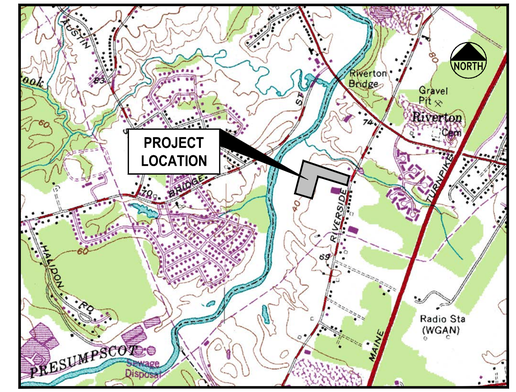
AUGUST 2021

PERMIT DOCUMENTS

TAX MAP-BLOCK-LOT NUMBER:
MAP 322 LOT A-10, MAP 323 LOTS A-3 & A-5

CURRENT LAND OWNER:
CITY OF PORTLAND
PORTLAND, ME. 04101
DEED DATED MAY 18, 2010 / RECORDED AT CCRD IN
BOOK 27825 / PAGE 68

DEVELOPER / CO-APPLICANT:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME. 04101
CONTACT: KEVIN BUNKER
207.772.7673
bunker.kevin@gmail.com



LOCATION MAP
N.T.S.

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*NOT INCLUDED IN THIS SUBMISSION

UTILITIES

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.761.8310
CONTACT: ROBERT BARTELS
rbartels@pwd.org

SEWER:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8840
CONTACT: KEITH GRAY / BRAD ROLAND

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: PATRICK MORRISON

NATURAL GAS:
NORTHERN UTILITIES / UNITIL
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207.797.8002, EXT. 6220
CONTACT: SCOTT CARPENTER
207.650.6716

CABLE TV:
TIME WARNER CABLE / SPECTRUM
115 JOHNSON ROAD
PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
DIAL 811 (AT LEAST 72 HRS IN ADVANCE)

PERMITS / APPROVALS

TYPE:	GOVERNING BODY:	STATUS/DATE ISSUED:
LOCAL		
MAJOR SITE PLAN APPROVAL:	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8608 CONTACT: MATT GROOMS	MAJOR SITE PLAN APPLICATION JUNE 18, 2021 RESUBMISSION AUGUST 31, 2021
BUILDING PERMIT:	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8900	BY OWNER/ARCHITECT
UTILITY OPENING PERMITS:	CITY OF PORTLAND PUBLIC SERVICES DIVISION 212 CANCO ROAD PORTLAND, ME 04103	BY CONTRACTOR

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

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CONTACT: STEPHEN WEATHERHEAD
wintonscott.com

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LANDSCAPE ARCHITECT:
Aceto Landscape Architects.
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PORTLAND, MAINE 04101
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60 CASSIDY DRIVE
PORTLAND, MAINE 04102
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CONTACT: TOM FIGURA

ENVIRONMENTAL:
Woodard & Curran, Inc.
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
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NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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Drawing Name: COVER SHEET
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.0

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GENERAL NOTES:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT MANUAL FOR CONSTRUCTION SPECIFICATIONS AND BIDDING PROCEDURES.
2. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCE, PAVING, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS. ENTRANCES IN MOST LOCATIONS REQUIRE STRUCTURAL SLABS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR INFORMATION ON THE STRUCTURAL SLAB ENTRANCES.
4. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSIONS AND THE FINAL SERVICE CONNECTIONS.
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE APPLICANT AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR THE CITY, AT NO ADDITIONAL COST TO THE OWNER.
7. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
8. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE PROJECT SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SHALL APPLY AT NO EXTRA COST TO THE OWNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS THROUGHOUT THE PROJECT AND PROVIDING THE OWNER WITH A SET OF THE FINAL RECORD DRAWINGS WHEN THE PROJECT IS COMPLETE.
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH OUT THE LIFE OF THE PROJECT.

SITE LAYOUT NOTES:

1. ALL HANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS.
2. BITUMINOUS CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.01, 703.07, AND 609.04.
3. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.
4. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.
5. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.
6. STRIPE PARKING AREAS, DRIVES AND ROADWAY AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, CROSSWALKS, HANDICAP SYMBOLS, PAINTED ISLANDS AND FIRE LANES. (ALL MARKINGS EXCEPT MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT.) ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE 'F'. MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT.
7. SEE DETAILS FOR PARKING STALL DIMENSIONS, HANDICAP SYMBOLS, SIGNS AND SIGN POSTS.
8. STOP BARS SHALL BE 12" WIDE.
9. PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES @ 3'-0" O.C. BORDERED BY 4" WIDE LINES.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS.
2. PROVIDE TURF REINFORCEMENT IN AREAS INDICATED ON THE PLANS.
3. AN "AS-BUILT" CERTIFICATION OF THE STORMWATER DRAINAGE SYSTEM BY A REGISTERED ENGINEER IS REQUIRED PRIOR TO THE OWNER ACCEPTING THE BUILDING AND PROPERTY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ANY DEVIATION FROM THE PLANS MAY DELAY THE ACCEPTANCE OF THE PROJECT.
4. A DETAILED O&M MANUAL FOR STORMWATER MANAGEMENT SYSTEMS IS (WILL BE) FILED WITH THE CITY OF PORTLAND DURING THE PERMIT REVIEW PROCESS. A SPECIFIC MANUAL HAS BEEN PREPARED FOR O&M OF THE DRAINAGE SYSTEM.
5. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
6. SEE GRADING, DRAINAGE AND EROSION/SEDIMENT CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
7. ALL DISTURBED AREAS NOT TO BE PAVED, SODDED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
8. COMPACTION REQUIREMENTS:

LOCATION	MINIMUM COMPACTION
SUBBASE AND BASE GRAVEL BELOW PAVED OR CONCRETE AREAS	95%
SUBGRADE FILL BELOW PAVED AREAS	90%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
STRUCTURAL FILL WITHIN PROPOSED BUILDING AREA	95%
SELECT FILL ADJACENT BUILDING FOUNDATIONS, EXTERIOR FOUNDATIONS, AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE	95%

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557.

9. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
10. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND EXIT RAMPS ADJACENT TO THE BUILDING AND ALONG NEW CURBED AREAS. ALL ADA COMPLIANT PARKING SPACES SHALL BE PAVED WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
11. PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH THE FINAL GEOTECHNICAL RECOMMENDATIONS.
12. NATIVE SOILS :
13. FIVE (5.0) FEET OF CLEAN GRANULAR SOIL MEETING THE SELECT FILL GRADATION SPECIFICATIONS SHALL BE PROVIDED BELOW THE ENTRANCE SLABS AND ADJACENT SIDEWALKS. GRADUAL TRANSITION (3 HORIZONTAL TO 1 VERTICAL) OF SELECT FILL THICKNESS SHALL BE PROVIDED FROM THE 5.0 FOOT DEPTH TO THE GRAVEL BASE THICKNESS AT THE SIDEWALKS AND PAVED AREAS AWAY FROM THE BUILDINGS.

UTILITY NOTES:

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE SITE WORK CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. ACTUAL UTILITY INSTALLATION SHALL BE BY THE MEP CONTRACTOR. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE GENERAL CONTRACTOR.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH CONSOLIDATED COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. ALL SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE MAINE STATE PLUMBING CODE AND CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER.
5. COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY. ALL UTILITY WORK SHALL CONFORM TO THE STANDARDS OF THE UTILITY COMPANY AND PROJECT SPECIFICATIONS. IN CASE OF CONFLICT, THE MORE STRINGENT STANDARDS SHALL APPLY.
6. THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY.
7. UNDERGROUND ELECTRICAL, CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO UTILITY COMPANY STANDARDS AND PROJECT SPECIFICATIONS, WHICH EVER IS MORE STRINGENT.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
10. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
12. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
13. THE CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION AND PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.

LANDSCAPE NOTES:

(SUBJECT TO COORDINATION WITH LANDSCAPE DRAWINGS. IN CASE OF CONFLICT, THE LANDSCAPING DRAWINGS SHALL GOVERN.)

1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNERS REPRESENTATIVE BEFORE AND AFTER PLANTING.
2. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSPECTION AND ACCEPTANCE, AND SHALL HAVE AT LEAST 80% HEALTHY GROWTH AT THE END OF THE GUARANTEED PERIOD.
3. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER, AND MULCH.
4. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS USED IN A CURBED ISLAND, THE BARK SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
5. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING AS SHOWN.
6. PARKING AREA PLANTED ISLANDS TO HAVE A MINIMUM OF 4" TOPSOIL. REMOVE ALL CONSTRUCTION DEBRIS BEFORE TOPSOILING. TOPSOIL SHALL BE PLACED TO TOP OF CURB.
7. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER OR THE OWNERS REPRESENTATIVE PRIOR TO ARRIVAL ON THE SITE.
8. PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
9. THE CONTRACTOR SHALL LOCATE, VERIFY, AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTINGS AND UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
10. NO SUBSTITUTION OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
12. SEE PLANTING DETAILS FOR WEED BARRIER INFORMATION.
13. ALL PLANTING LOCATED AT THE ENTRANCE TO THE PROJECT OR AT INTERSECTIONS WITHIN THE SITE WILL BE MAINTAINED AND WILL NOT EXCEED 3 FEET IN HEIGHT WITHIN A TRIANGLE FORMED 25' INTO THE DRIVEWAY AND 25' ALONG THE TRAVEL WAY.

EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES. CLEARING AND GRADING LIMITS SHALL BE STAKED BY THE CONTRACTOR BASED ON THE LIMITS OF GRADING SHOWN ON THE DRAWINGS AND ACCEPTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. AFTER THE CLEARING AND GRADING LIMITS HAVE BEEN ACCEPTED, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE CONSTRUCTION ENTRANCES ASSOCIATED WITH THE PROJECT.
2. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE. TEMPORARY/PERMANENT SEED MIXTURES SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL PROJECT PREPARED FOR THIS PROJECT.
3. PRIOR TO PAVING, THE CONTRACTOR SHALL FLUSH SILT FROM ALL STORM LINES.
4. ALL STORM DRAIN INLETS AND OUTLETS NOT IN PAVED AREAS ARE TO RECEIVE RIPRAP PROTECTION APRONS DURING CONSTRUCTION.
5. SILT FENCES SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
6. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCE AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD, SWEEPING OF THE ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR.
7. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO TOPSOIL FOR USE IN LANDSCAPING OPERATIONS.
8. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.
9. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION / SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES AS ENFORCED BY THE MEDEP OR LOCAL AGENCIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.
10. A FULL EROSION/SEDIMENTATION CONTROL PLAN ACCOMPANIES THIS DRAWING SET AND IS ALSO CONTAINED IN THE SITE WORK SPECIFICATIONS.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
12. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS $\frac{1}{3}$ THE STRUCTURE HEIGHT.
13. INSTALL CURLEX EROSION CONTROL MAT OR EQUAL ON ALL SLOPES STEEPER THAN 3:1.
14. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION & SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, CUMBERLAND COUNTY SOIL AND WATER CONVERSATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991"

LEGEND

EXISTING	PROPOSED
ZONING LINE	
EXISTING STRUCTURE	BUILDING
EDGE OF TRAVEL WAY, PAVEMENT, ROADS, DRIVES	PROPERTY LINE
CURBING	RETAINING WALL
PROPERTY LINE	CURBING
EASEMENT LINE	VERTICAL GRANITE*
OHE —OHW— OVERHEAD ELECTRIC LINES / OVERHEAD WIRES	SLOPED GRANITE*
UGE UNDERGROUND ELECTRIC LINE	EDGE OF PAVEMENT
UGT UNDERGROUND TELEPHONE LINE	GRADING CONTOUR LINE (100)
W WATER LINE	SPOT ELEVATION (100.31)
WATER GATE VALVE	GUARD POST/BOLLARD
12"SD STORM DRAIN LINE	POLE WITH LIGHT FIXTURE(S)
S SANITARY SEWER LINE	FREESTANDING SIGN
striping (typ) ROADWAY PAVEMENT STRIPING	BARRIER FREE PARKING SYMBOL
G GAS	PEDESTRIAN CROSSWALK
X FENCE	DIRECTION OF TRAFFIC FLOW
EXISTING CONTOUR LINE	UNDERGROUND TELEPHONE / CABLE (UGT/C)
EXISTING WETLANDS	UNDERGROUND ELECTRIC/TELEPHONE (UGE/T)
UTILITY POLE	WATER LINE (W)
SIGN	SEWER LINE (SAN1)
LIGHT POLE	GAS LINE (G)
CATCH BASIN	STORM DRAIN LINE (SD1)
SEWER MANHOLE	HYDRANT
ELECTRICAL/COMMUNICATIONS VAULT	WATER GATE VALVE
ELECTRICAL/COMMUNICATIONS PULL BOX	WATER SHUT OFF VALVE
HYDRANT	MANHOLE
	CATCH BASIN
	EXISTING CATCH BASIN TO BE ALTERED
TREES, LANDSCAPING	RIPRAP
	SILT FENCE (SF)
TREELINE / EDGE OF BRUSH	CHAIN LINK OR SAFETY FENCE
TELEPHONE MANHOLE	WOOD FENCE
ELECTRICAL MANHOLE	GUIDE RAIL
TEST BORING	LIMIT OF WORK
WETLANDS	STONE SEDIMENT BARRIER
	TRANSFORMER PAD
	TREE TO BE REMOVED

*OWNER RESERVES THE RIGHT TO MODIFY ALL ONSITE CURBING TO SLIPFORM CONCRETE

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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207.772.2515

Drawing Name: GENERAL NOTES & LEGEND

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.1

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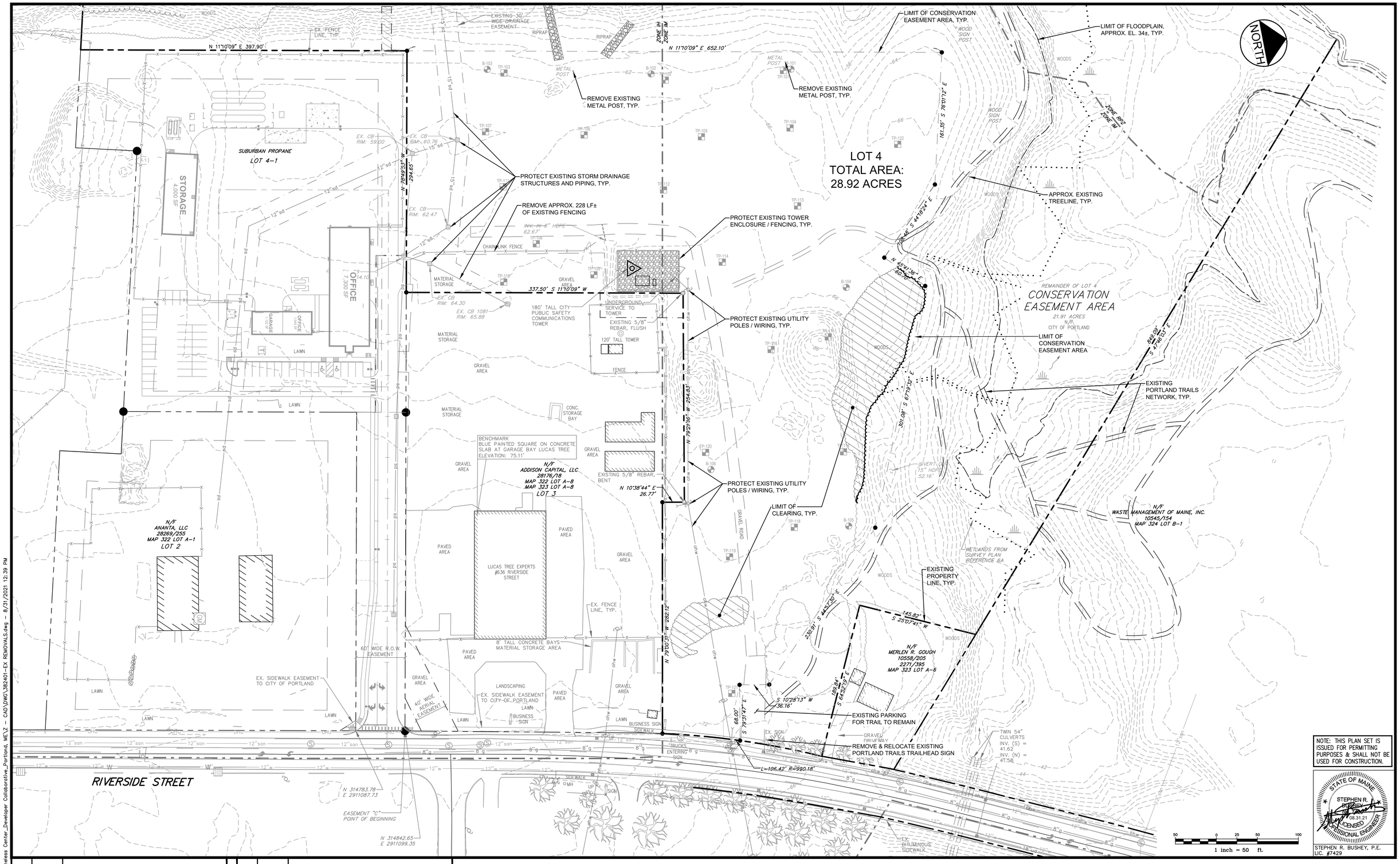

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STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-EX REMOVALS.dwg		

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Drawing Name: EXISTING CONDITIONS & REMOVALS PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-2.0

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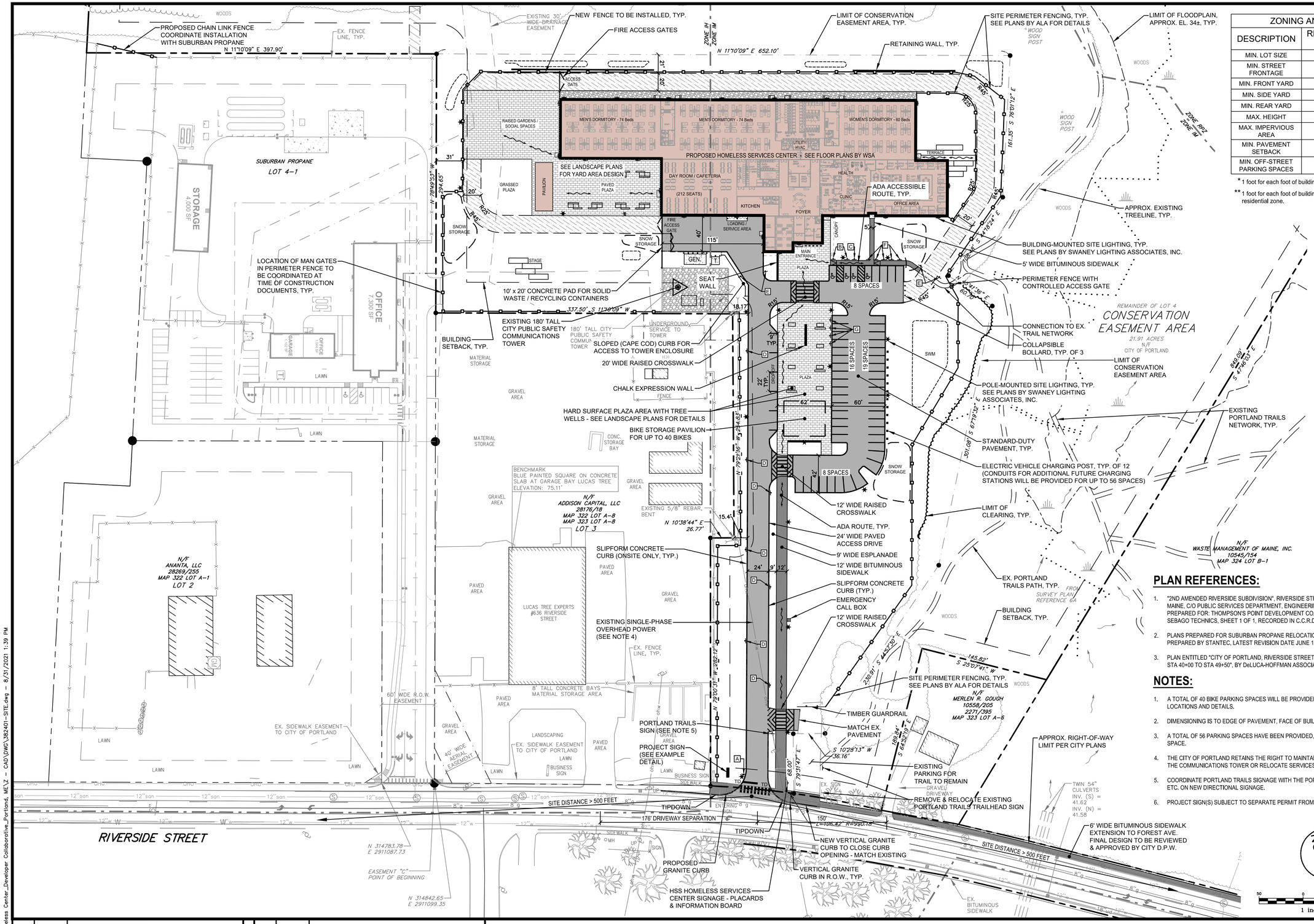

ZONING ANALYSIS - SPACE & BULK TABLE

DESCRIPTION	REQUIRED - IH ZONE	REQUIRED - IM ZONE	PROPOSED
MIN. LOT SIZE	NONE	NONE	28.92 ACRES
MIN. STREET FRONTAGE	60 Ft	60 Ft	196.42 Ft
MIN. FRONT YARD	25 Ft	22 Ft *	600 Ft +
MIN. SIDE YARD	35 Ft	22 Ft **	77 Ft
MIN. REAR YARD	35 Ft	22 Ft **	450 Ft +
MAX. HEIGHT	75 Ft	75 Ft	22 Ft
MAX. IMPERVIOUS AREA	85%	75%	11%
MIN. PAVEMENT SETBACK	10 Ft	10 Ft	15.4 Ft
MIN. OFF-STREET PARKING SPACES	15	15	51

* 1 foot for each foot of building height.

** 1 foot for each foot of building height up to 25 feet, except 35 feet when abutting a residential zone.

SURFACE LEGEND

- STANDARD-DUTY BIT. PAVEMENT
- BIT. SIDEWALK
- REINFORCED CONCRETE
- PLAZA AREA / HARDSCAPE - POROUS PAVER MATERIALS T.B.D.
- CRUSHED STONE AREA
- REINFORCED TURF AREA GRASSPAVE™ OR EQUAL

CURBING LEGEND

- VERTICAL CURB
- SLOPED (CAPE COD) CURB

SIGN LEGEND

STOP R1-1 30"x 30" A	R7-8 12"x 18" B	R7-8 12"x 18" C	R8-3o 24"x 30" D	
AUTHORIZED VEHICLES ONLY R5-11 30"x 24" E	VISITOR PARKING – – F	RIDE SHARE PARKING – – G		

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.
3. PLAN ENTITLED "CITY OF PORTLAND, RIVERSIDE STREET SEWER CONSTRUCTION, PLAN & PROFILE - RIVERSIDE STREET, STA 40+00 TO STA 49+50", BY DeLUCA-HOFFMAN ASSOCIATES, INC., SHEET NO. 5, RECORD DRAWINGS DATED 6 / 01 / 01.

NOTES:

1. A TOTAL OF 40 BIKE PARKING SPACES WILL BE PROVIDED IN THE BIKE STORAGE PAVILION. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 56 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.
4. THE CITY OF PORTLAND RETAINS THE RIGHT TO MAINTAIN THE SINGLE PHASE POWER & COMMUNICATIONS SERVICES TO THE COMMUNICATIONS TOWER OR RELOCATE SERVICES UNDERGROUND.
5. COORDINATE PORTLAND TRAILS SIGNAGE WITH THE PORTLAND TRAILS OFFICE SO AS TO INCLUDE THE PROPER LOGO, ETC. ON NEW DIRECTIONAL SIGNAGE.
6. PROJECT SIGN(S) SUBJECT TO SEPARATE PERMIT FROM CODES & INSPECTIONS DIVISION.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 10429 — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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File Name: 382401-SITE.dwg		

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Drawing Name: SITE LAYOUT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-3.0

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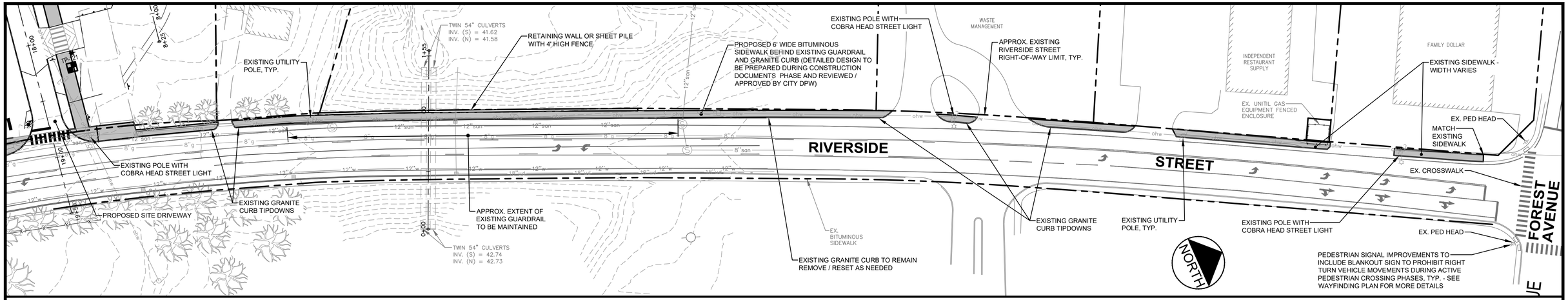
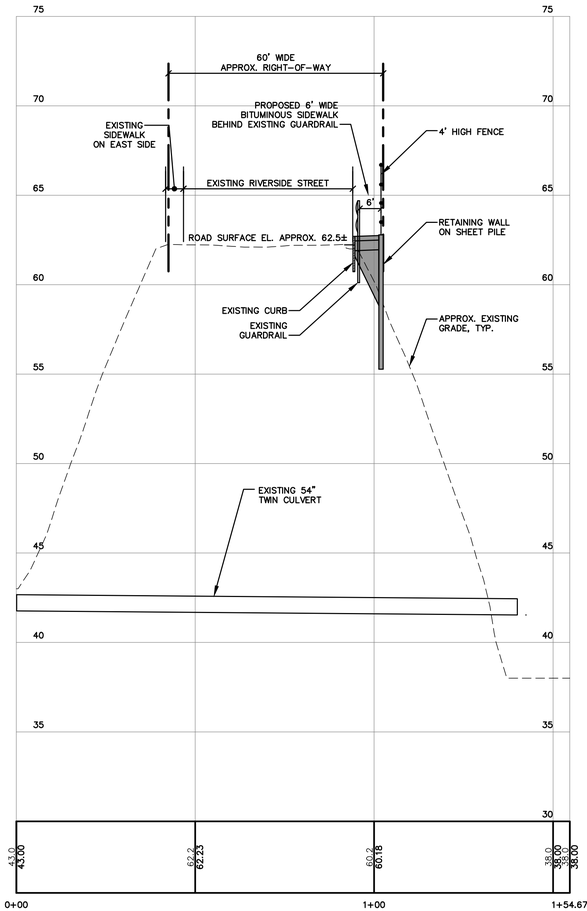


RIVERSIDE STREET SIDEWALK EXTENSION PLAN

SCALE: 1" = 40'



CROSS SECTION AT RIVERSIDE STREET CULVERT CROSSING

SCALE: 1" = 20' HORZ. / 1" = 4' VERT.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

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File Name: 382401-SITE CROSS SECTIONS.dwg		

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Drawing Name: RIVERSIDE STREET SIDEWALK EXTENSION PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-3.1

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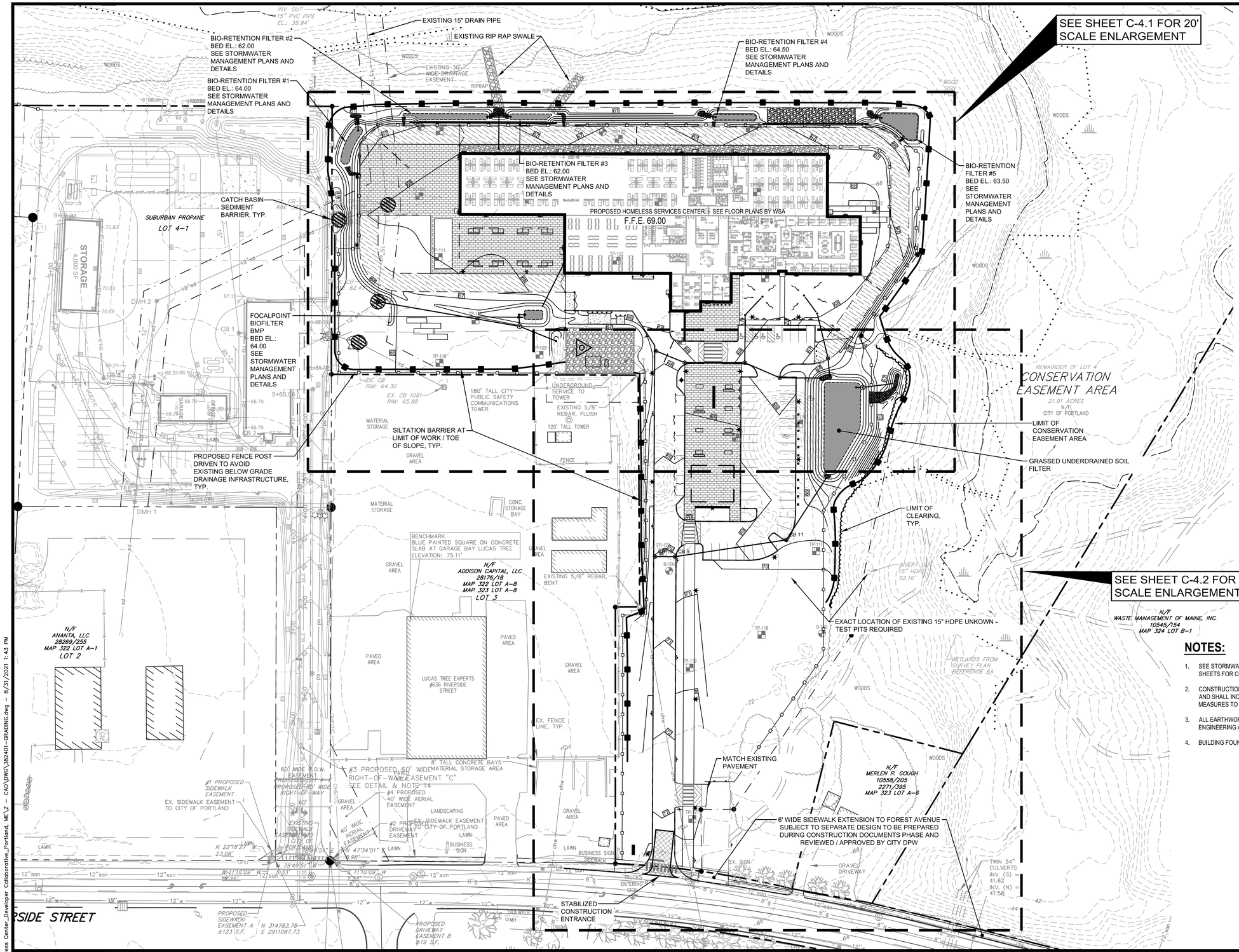

STORM DRAIN SCHEDULE				
STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)
BLDG RD-1		65.08		65.00/12"()
CB 1	4'ø	67.50	62.63/12"(CB 2)	62.53/12"()
CB 2	4'ø	67.86	63.04/12"(CB 3) 63.48/12"(FI 1)	62.94/12"(CB 1)
CB 3	4'ø	67.73	63.64/12"(CB 4)	63.54/12"(CB 2)
CB 4	4'ø	67.70		63.90/12"(CB 3)
CB 5	4'ø	66.44	63.26/12"(FI 3)	63.16/12"(GUSF-2)
CB 8	4'ø	63.25		59.37/12"(DMH 1)
CB 9	4'ø	70.04	65.74/12"(CB 10)	65.64/12"(CB 11)
CB 10	4'ø	70.04		65.96/12"(CB 9)
CB 11	4'ø	68.99	64.40/12"(CB 9)	64.30/12"()
DMH 1	4'ø	65.88	57.10/12"(CB 8) 57.07/6"(Structure - (34))	56.97/12"(EX CB)
FI 1		68.55	63.48/12"(FI 2)	64.00/12"(CB 2)
FI 2		68.35		64.00/12"(FI 1)
FI 3		68.10	63.26/12"(FI 4)	63.75/12"(CB 5)
FI 4		68.35		63.75/12"(FI 3)
OCS-1	5'ø	62.50	58.67/6"()	58.57/12"()

SD PIPE TABLE			
Pipe Name	Size	Length	Slope
SD 1	12"	43'	0.69%
SD 2	12"	38'	0.75%
SD 3	12"	62'	0.75%
SD 4	12"	30'	0.75%
SD 5	12"	48'	1.00%
SD 6	12"	17'	0.70%
SD 7	12"	47'	0.96%
SD 9	12"	52'	1.04%
SD 11	12"	120'	1.00%
SD 12	12"	18'	1.00%
SD 13	6"	13'	1.06%
SD 14	6"	9'	1.00%
SD 15	6"	9'	1.00%
SD 16	6"	13'	1.00%
SD 17	6"	10'	1.00%
SD 19	12"	39'	5.25%
SD 20	12"	155'	0.40%
SD 21	6"	10'	0.00%
SD 22	6"	5'	0.00%
SD 23	12"	31'	0.69%

NOTES:

1. SEE STORMWATER MANAGEMENT PLAN FOR MORE INFORMATION OF EACH STORMWATER MANAGEMENT BMP AND DETAIL SHEETS FOR CONTINUATION OF INFORMATION.
2. CONSTRUCTION DEWATERING, IF REQUIRED, SHALL BE CONDUCTED ACCORDANCE WITH CITY'S TECHNICAL STANDARDS AND SHALL INCLUDE, BUT IS NOT LIMITED TO, ADEQUATE SEDIMENT REMOVAL BY MEANS OF SUMPS, FILTERS, OR OTHER MEASURES TO ASSURE CLEAN WATER IS RELEASED TO STABILIZED OUTLETS.
3. ALL EARTHWORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS OF S.W. COLE ENGINEERING AND ENVIRONMENTAL MANAGEMENT REQUIREMENTS BY THE PROJECT ENVIRONMENTAL CONSULTANT.
4. BUILDING FOUNDATION MAY REQUIRE PERIMETER DRAINAGE - DISCHARGE TO STABILIZED RIP RAP OUTLET IF REQUIRED.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 08.31.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E. LIC. #7429

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File Name: 382401-GRADING.dwg		

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Drawing Name: GRADING, DRAINAGE & EROSION CONTROL PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.0

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LEVEL LIP SPREADER
BERM EL.: 61.00
BERM LENGTH: 8'

LEVEL LIP SPREADER
BERM EL.: 60.25
BERM LENGTH: 16'

BIO-RETENTION FILTER #3
BED EL.: 62.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

LEVEL LIP SPREADER
BERM EL.: 62.00
BERM LENGTH: 8'

BIO-RETENTION FILTER #4
BED EL.: 64.50
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

LEVEL LIP SPREADER
BERM EL.: 62.00
BERM LENGTH: 8'

6" OUTFALL
INV.: 61.23

6" OUTFALL
INV.: 61.69

(2) 6" OUTFALLS
INV.: 59.74

4" BERM, 3' WIDE

66.5±

6" OUTFALL
INV.: 62.20

66.5±

68.98± (ALL REAR DOORS REQUIRE PRECAST CONCRETE LANDING AND STEPS DOWN TO EXTERIOR GRADE)

65.8±

GRADE BREAK

BIO-RETENTION FILTER #2
BED EL.: 62.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

4" BERM, 3' WIDE - TO MAINTAIN DRAINAGE PATTERNS TO STORMWATER MANAGEMENT BASINS, TYP.

RIP RAP STABILIZATION AT BASE OF WALL
D50 = 6", THICKNESS = 14"

MODULAR BLOCK RETAINING WALL WITH 42" FENCE FOR FALL PROTECTION - SHOP DRAWINGS REQUIRED FOR WALL DESIGN FROM LICENSED P.E., TYP.

POROUS PAVERS, TYP.

BIO-RETENTION FILTER #1
BED EL.: 64.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

BIO-RETENTION FILTER #5
BED EL.: 63.50
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

ADJUST EXISTING STRUCTURE TO GRADE WITH ONE OR MORE BARREL SECTIONS AND/OR CONE ADJUSTMENTS, TYP.

68.98

GRADE BREAK

POROUS PAVERS, TYP.
(MAY INCLUDE 4" UNDERDRAIN SYSTEM - NOT SHOWN FOR CLARITY - WILL BE PROVIDED IN CONSTRUCTION DOCUMENTS)

PROPOSED HOMELESS SERVICES CENTER - SEE FLOOR PLANS BY WSA

F.F.E. 69.00

FINAL ROOF DRAIN LOCATION SUBJECT TO FINAL BUILDING DESIGN

VERIFY ALL EXTERIOR GRADES WITH ARCHITECTURAL/STRUCTURAL & CIVIL PLANS PRIOR TO COMMENCMENT OF EARTHWORK ACTIVITY, TYP.

STRUCTURAL SLAB, TYP. - SEE STRUCTURAL PLANS

GRADE TO DRAIN, TYP.

CORE HOLE TO ACCEPT NEW STORM DRAIN, TYP.

EX. CB
RIM: 62.47

FOCALPOINT BIOFILTER BMP
BED EL.: 64.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

EXISTING RIP RAP AROUND INLET, TYP.

EX. CB
RIM: 64.30

EX. CB 1081
RIM: 65.88

PROPOSED FENCE POST DRIVEN TO AVOID EXISTING BELOW GRADE DRAINAGE INFRASTRUCTURE, TYP.

EXISTING 5/8" REBAR, FLUSH

POROUS PAVERS, TYP.

68.78 TC
68.20 BC

68.58 TC
68.00 BC

68.8 TC
68.3 BC

68.31 TC
67.73 BC

68.76 TC
68.18 BC

68.96 TC
68.38 BC

67.93 TC
67.35 BC

MAINTAIN GLUTTER

EMERGENCY SPILL

GRASSED UNDERD

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

NORTH

20 0 10 20 40
1 inch = 20 ft.

Rev.	Date	Revision

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3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
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1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-GRADING.dwg		

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207.772.2515

Drawing Name: 20' SCALE GRADING ENLARGEMENTS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.1

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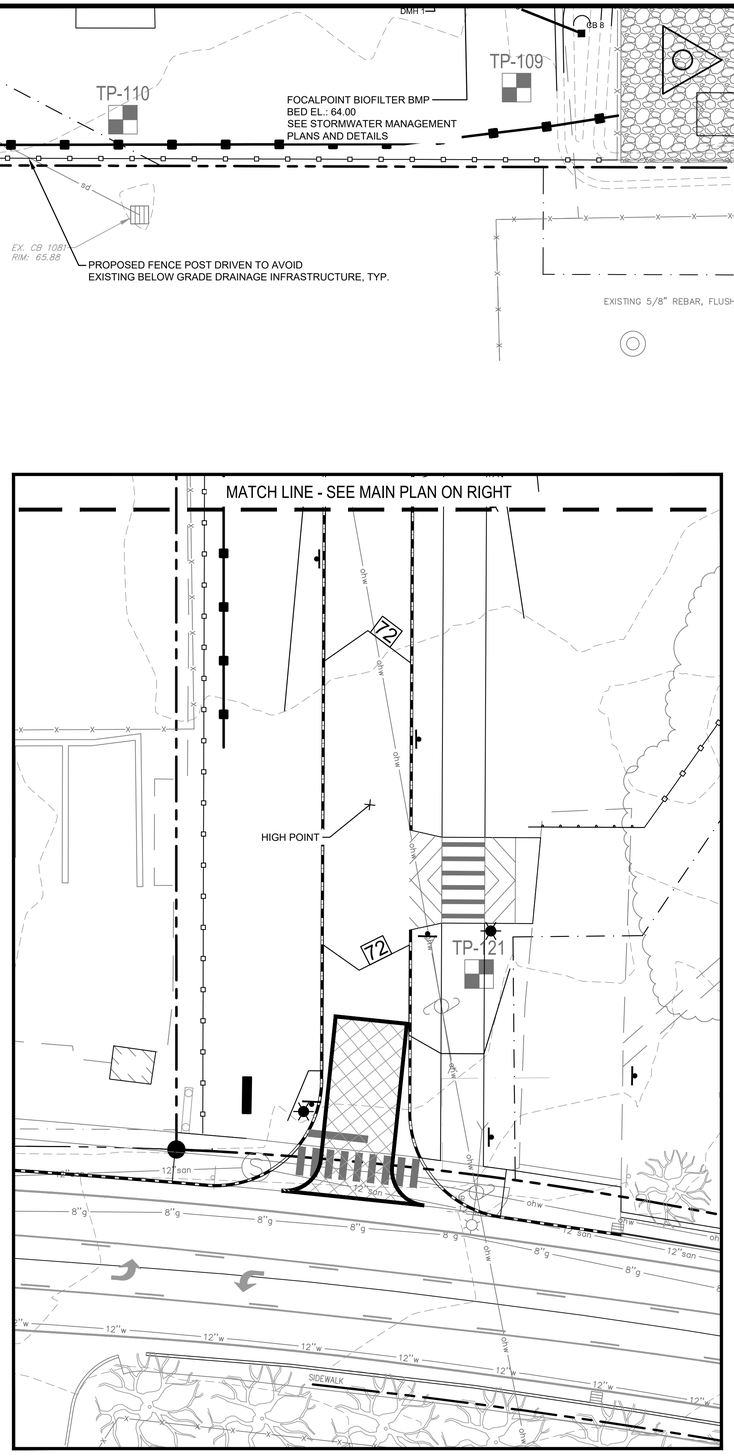
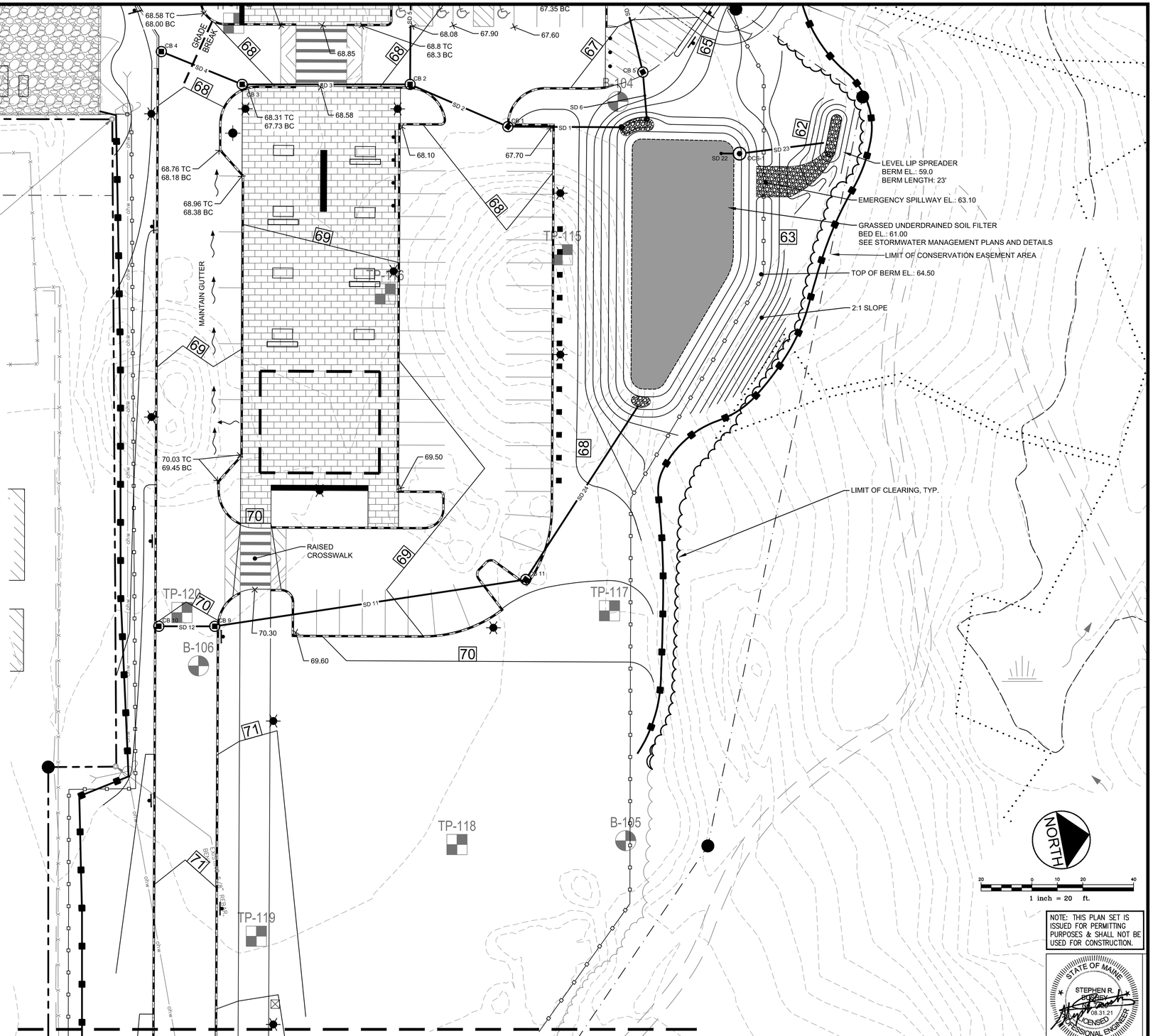


20 SCALE GRADING ENLARGEMENT - PLAN INSET



MATCH LINE - SEE PLAN INSET ON LEFT

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing Name: 20' SCALE GRADING ENLARGEMENTS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.2

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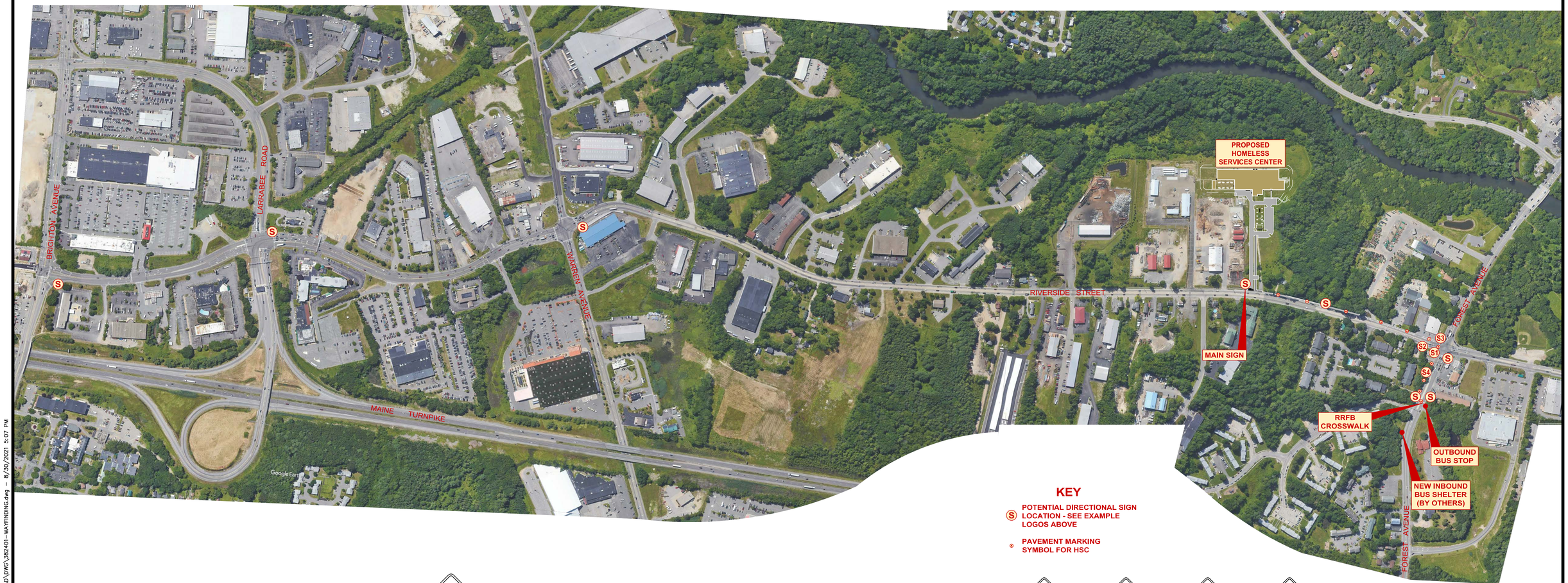
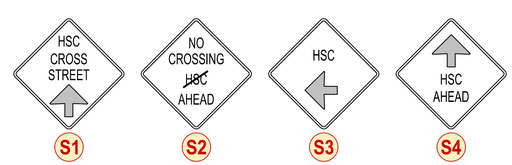
EXAMPLES OF HOMELESS SERVICES CENTER WAYFINDING SIGNAGE



KEY

- (S) POTENTIAL DIRECTIONAL SIGN LOCATION - SEE EXAMPLE LOGOS ABOVE
- ⊙ PAVEMENT MARKING SYMBOL FOR HSC

EXAMPLE OF MUTCD SIGNAGE



300 0 150 300 600

1 inch = 300 ft.

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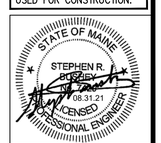

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Drawing Name: WAYFINDING PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-5.0

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SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)
EX SMH 10	4'ø	71.31	60.00/8"(SMH 1) 52.70/12"(EX SMH 11)	52.62/12"(EX SMH 9)
SMH 1	4'ø	70.50	61.55/8"(SMH 2)	61.45/8"(EX SMH 10)
SMH 2	4'ø	68.00	63.12/8"(SMH 3)	63.02/8"(SMH 1)
SMH 3	4'ø	68.75	63.40/6"(BLDG SEWER) 63.40/6"(GREASE TANK)	63.30/8"(SMH 2)

PIPE TABLE

Pipe Name	Size	Length	Slope
SAN 1	8"	292'	0.50%
SAN 2	8"	298'	0.49%
SAN 3	8"	51'	0.35%
SAN 4	6"	14'	1.82%
SAN 5	6"	6'	1.70%

NOTES:

1. THE SITE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUIT / CONDUCTOR SIZING FOR ALL PROPOSED SECONDARY CIRCUITS EXTENDING FROM THE BUILDING TO EXTERIOR LIGHTING, OUTLETS, ELECTRIC VEHICLE CHARGING STATIONS, PROJECT SIGN AND RELATED SITE AMENITIES.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STEPHEN R. BUSHEY, P.E. LIC. #7429

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File Name: 382401-UTIL.dwg		

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Drawing Name: UTILITY PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-6.0

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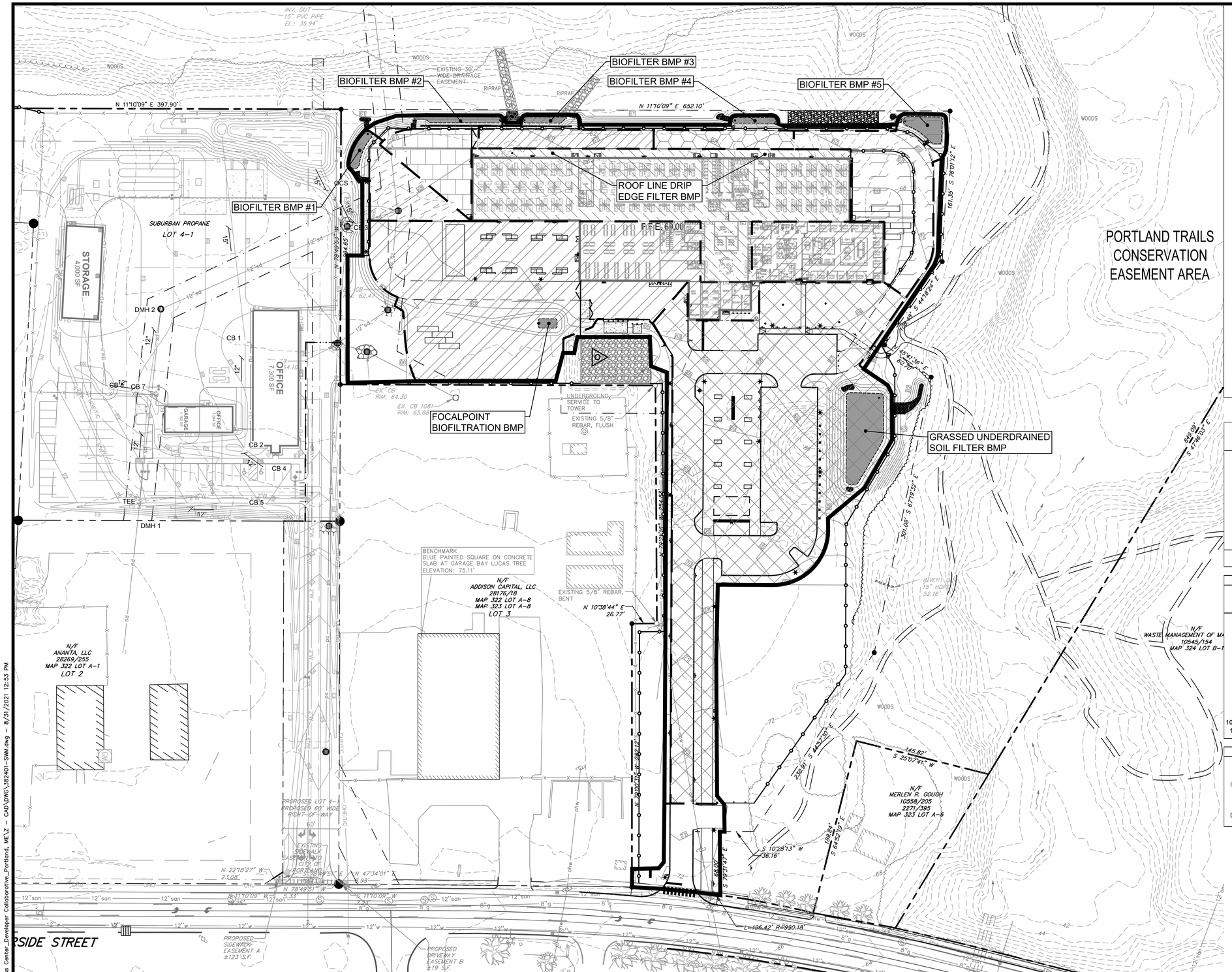

STORMWATER TREATMENT METHOD LEGEND

- TO BIO-FILTER #1
- TO BOI-FILTER #2
- TO BIO-FILTER #3
- TO BIO-FILTER #4
- TO BIO-FILTER #5
- TO FOCALPOINT
- TO GRASSED UNDERDRAINED SOIL FILTER
- TO ROOF LINE DRIP EDGE FILTER
- UNTREATED AREA

STORMWATER MANAGEMENT SUMMARY

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	35078	0	35,078	35,078	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	52954	22,963	75,917	52,954	22,963
103a	0	7,664	7,664	0	0
103b	34364	24,258	58,622	34,364	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,178	5,728	3,107	3,226
101e	Roof Line Drip Edge Filter	2,923	3,273	-	-
101a, 102a, 103a, 104 (untreated)		-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

NORTH

50 0 25 50 100

1 inch = 50 ft.

STATE OF MAINE STEPHEN R. BUSHEY 08.31.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E. LIC. #7429

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Drawing Name: OVERALL STORMWATER MANAGEMENT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.0

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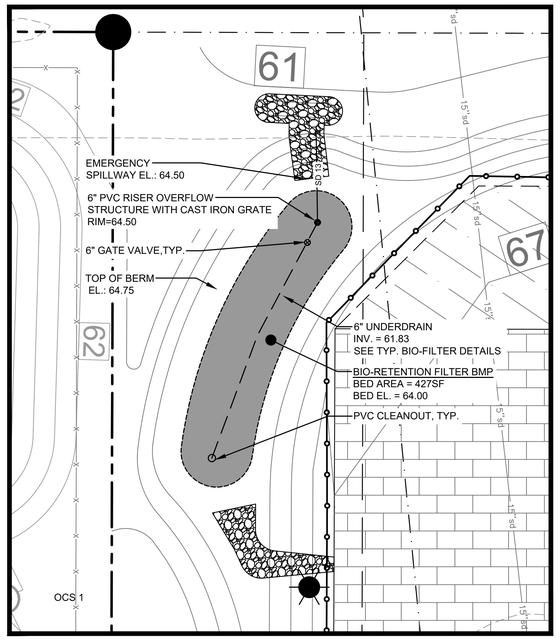
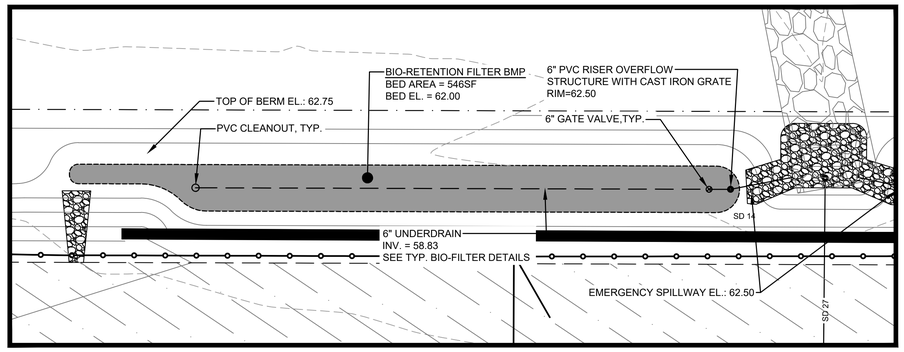


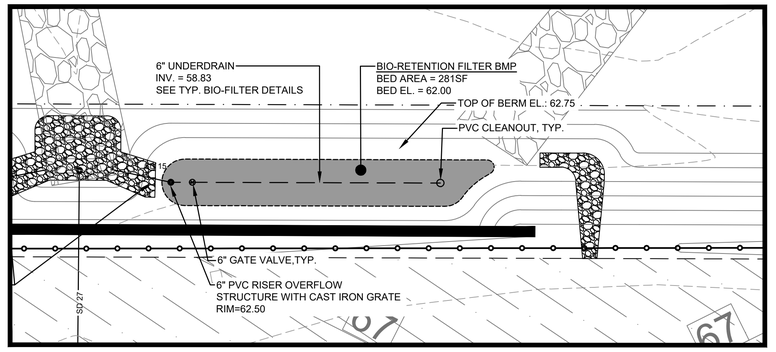
BIO-RETENTION FLITER #1

SCALE: 1" = 10'



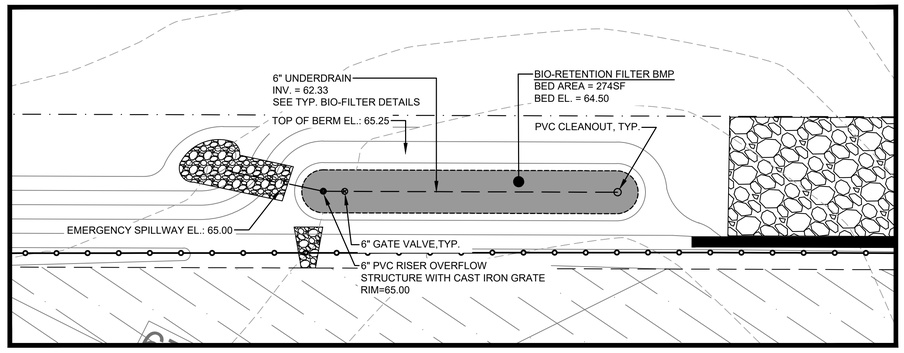
BIO-RETENTION FILTER #2

SCALE: 1" = 10'



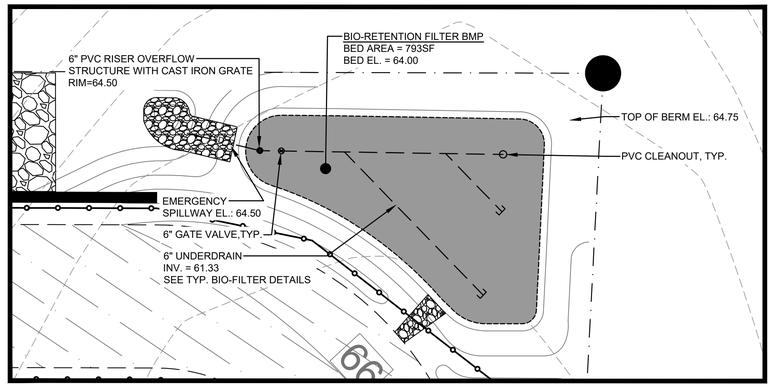
BIO-RETENTION FILTER #3

SCALE: 1" = 10'



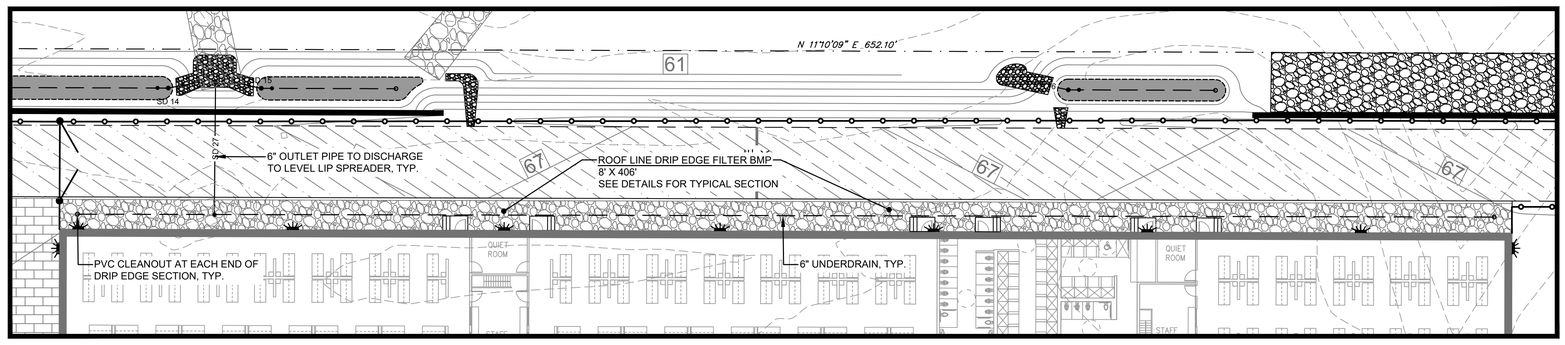
BIO-RETENTION FILTER #4

SCALE: 1" = 10'



BIO-RETENTION FILTER #5

SCALE: 1" = 10'



ROOF LINE DRIP EDGE FILTER

SCALE: 1" = 20'

NORTH

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STEPHEN R. BUSHEY
08.31.21
LICENSED
PROFESSIONAL ENGINEER

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207.772.2515

Drawing Name: STORMWATER MANAGEMENT PLAN - BMP PLAN VIEWS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.1

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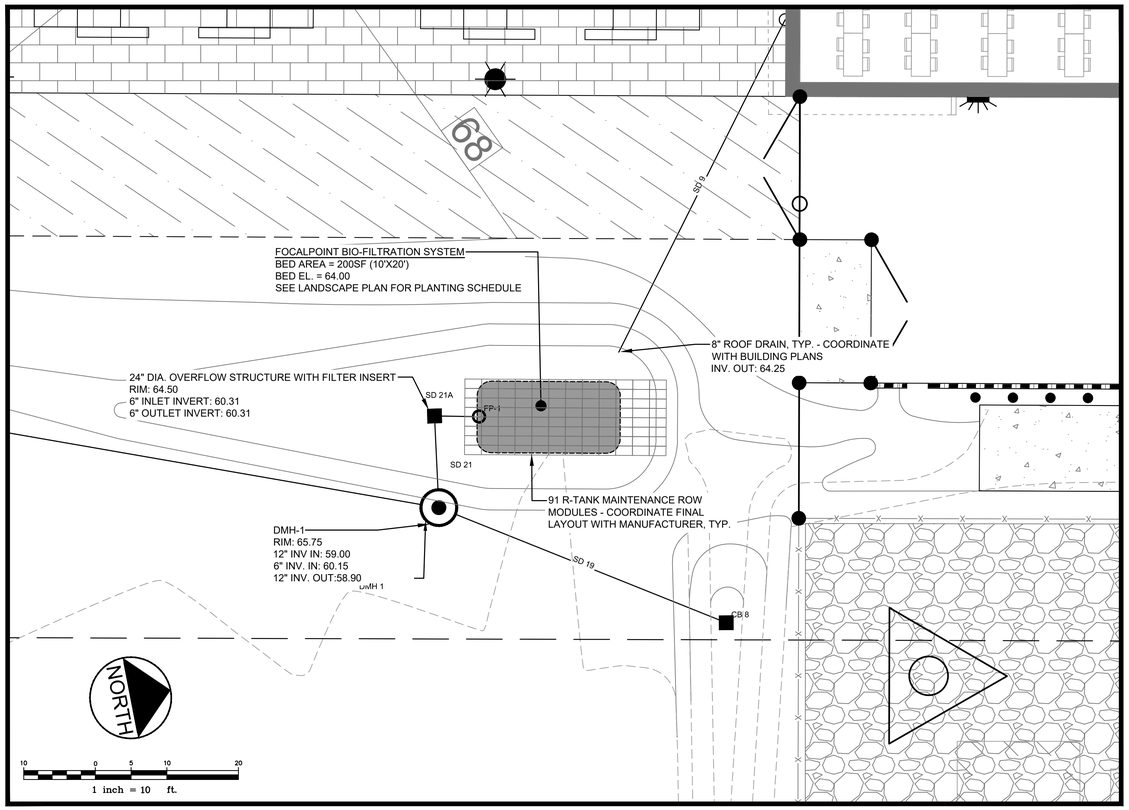
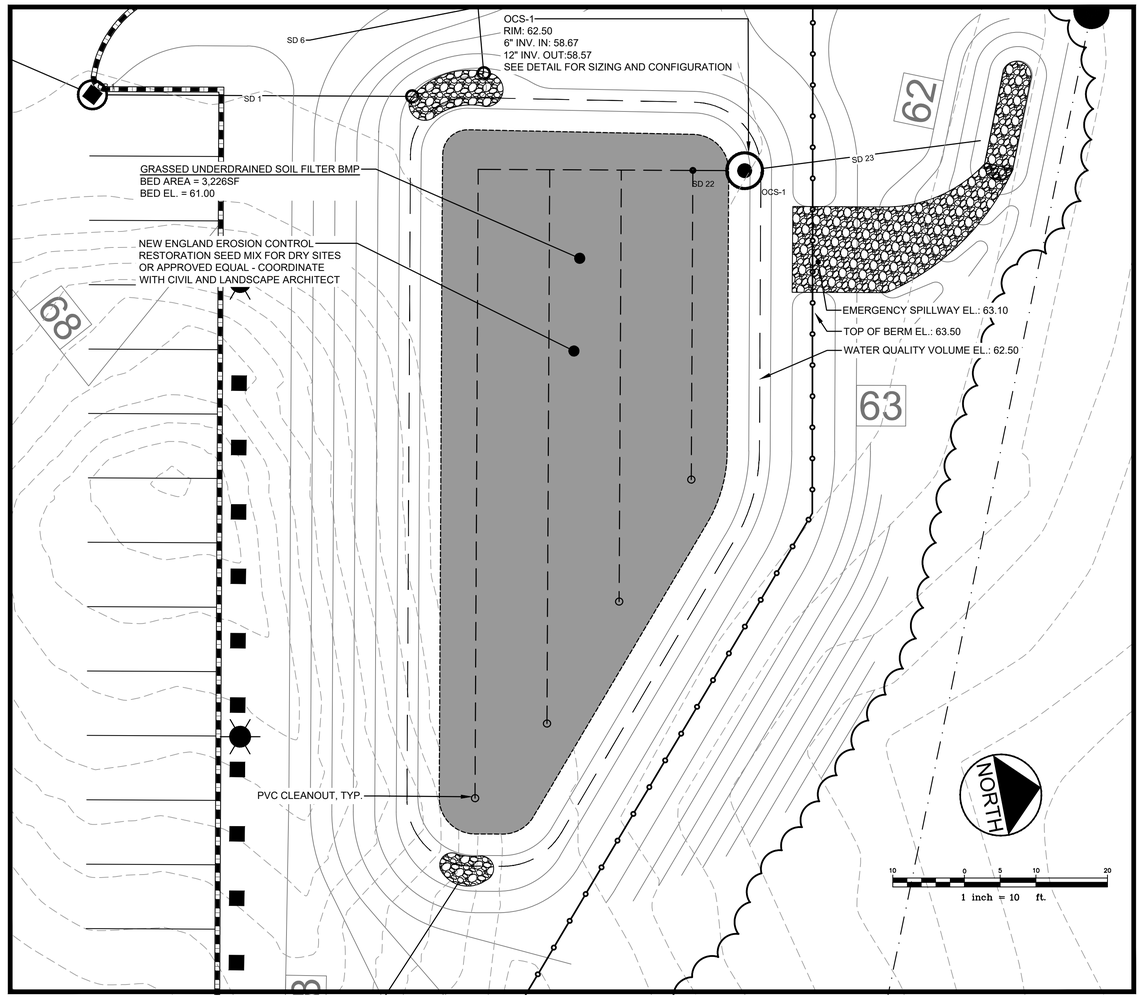


FOCALPOINT BIO-FILTRATION SYSTEM

SCALE: 1" = 10'



GRASSED UNDERDRAINED SOIL FILTER

SCALE: 1" = 10'

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Drawing Name: STORMWATER MANAGEMENT PLAN - BMP PLAN VIEW

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Client/Owner: **DC Predevelopment LLC**
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Drawing No. C-7.2

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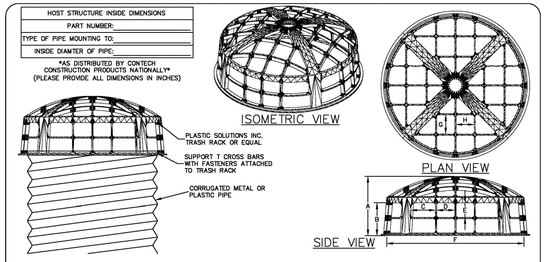
HOST STRUCTURE INSIDE DIMENSIONS
PART NUMBER:
TYPE OF PIPE MOUNTING TO:
INSIDE DIAMTER OF PIPE:

AS DISTRIBUTED BY CONTECH CONSTRUCTION PRODUCTS NATIONALLY
(PLEASE PROVIDE ALL DIMENSIONS IN INCHES)



ROUND SERIES TRASH RACKS										
	RISER									
PART NO.	CONCRETE INSIDE DIA.	CMP OR HDPE NOMINAL DIA.	A	B	C	D	E	F	G	H
RS-24	24"ø	12"ø-18"ø	17 1/2"	13 1/2"	7 3/4"	6 1/4"	6 1/4"	27 1/2"	6 1/4"	7 1/2"
RS-36	36"ø	21"ø-30"ø	21 1/8"	13 1/2"	6 1/4"	6 1/4"	6 1/4"	40 1/2"	6 1/4"	7 1/2"
RS-48	48"ø	33"ø-42"ø	27 3/4"	17 3/4"	7"	8 1/2"	6 3/4"	54 1/4"	8 1/2"	8"
RS-60	60"ø	48"ø-54"ø	27 3/4"	17 3/4"	11 1/2"	8 1/2"	6 3/4"	67 1/2"	8 1/2"	9"

CONTECH CONSTRUCTION PRODUCTS INC.
9025 CENTRE POINT DRIVE, SUITE 400
WEST CHESTER, OHIO 45069
PH: 1.800.338.1122 FAX: 513.645.7993
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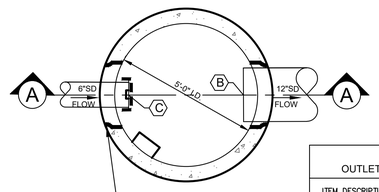
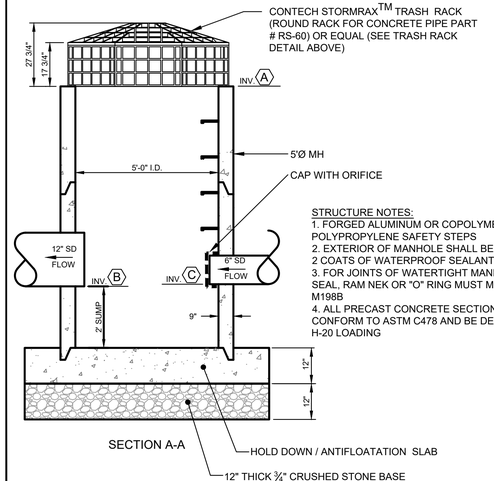
CUSTOMER:	DATE:
	DRAWN BY:
PROJECT:	APP'D BY:
	DETAIL:



PLAN VIEW

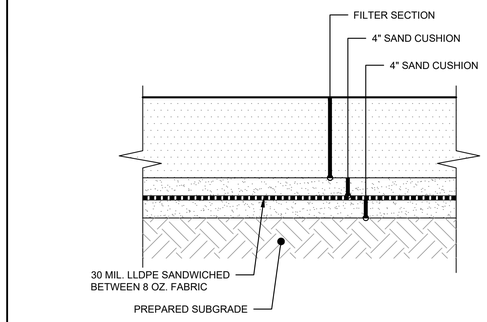
SCHEDULE B OUTLET CONTROL STRUCTURE	
ITEM DESCRIPTION	STRUCTURE OCS
(A) RIM INVERT	62.50
(B) OUTLET PIPE INVERT – 12"	58.57
(C) INLET PIPE INVERT – 6"	58.67



STRUCTURE NOTES:
1. FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE SAFETY STEPS
2. EXTERIOR OF MANHOLE SHALL BE TREATED WITH 2 COATS OF WATERPROOF SEALANT
3. FOR JOINTS OF WATERTIGHT MANHOLE KENT SEAL, RAM NEK OR "O" RING MUST MEET AASHTO M198B
4. ALL PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C478 AND BE DESIGNED FOR H-20 LOADING

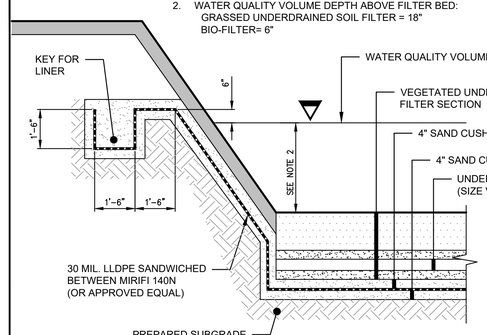
SECTION A-A

(A) 5'-0" PRECAST OUTLET CONTROL STRUCTURE 1 DETAIL
N.T.S.

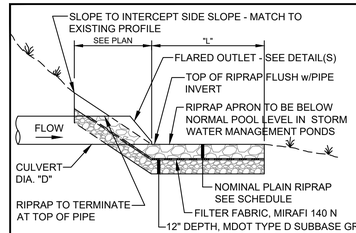


(B) TYPICAL DETAIL IMPERMEABLE LINER UNDERDRAINED WATER QUALITY FILTER
N.T.S.

NOTE:
1. INSTALL WATER TIGHT SEAL AT ALL LOCATIONS WHERE PIPE PENETRATES THE LINER, PER MANUFACTURER'S RECOMMENDATIONS
2. WATER QUALITY VOLUME DEPTH ABOVE FILTER BED:
GRASSED UNDERDRAINED SOIL FILTER = 18"
BIO-FILTER= 6"



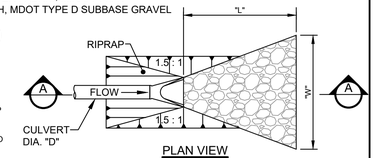
(E) TYPICAL DETAIL LLDPE LINER SIDE SLOPE AND TOP "KEY"
N.T.S.



SCHEDULE FOR STORM DRAIN				
CULVERT DIAMETER (D)	LENGTH (L)	WIDTH (W)	STONE d_{50}	RIPRAP THICKNESS
12"	10'	12'	6"	14"
15"	10'	12'	6"	14"
18"	10'	12'	6"	14"
24"	12'	14'	6"	14"
30"	12'	23'	6"	27"
36"	14'	23'	6"	27"
42"	24'	28'	12"	27"
48"	28'	32'	12"	27"

SECTION VIEW A

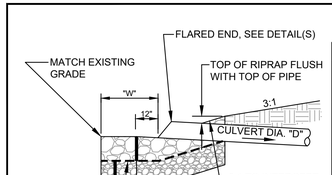
NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.



PLAN VIEW

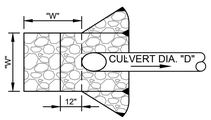
IN LAWN AREAS, THE RIPRAP APRON SHALL BE SURROUNDED BY A LANDSCAPE TIMBER TO PROVIDE AN ATTRACTIVE APRON.
LANDSCAPE TIMBER TO BE 5" TREX SECURED WITH 4'-0" LONG METAL U CHANNEL SPACED @ 4'-0" O.C. OR APPROVED EQUAL.

(F) RIPRAP OUTLET APRON DETAIL
N.T.S.



SECTION VIEW

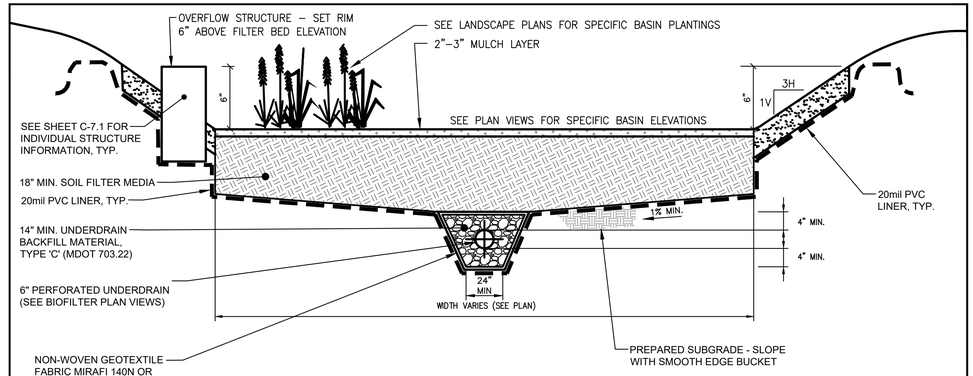
SCHEDULE			
CULVERT DIAMETER (D)	WIDTH (W)	STONE d_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
30"	8'	12"	27"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"



PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

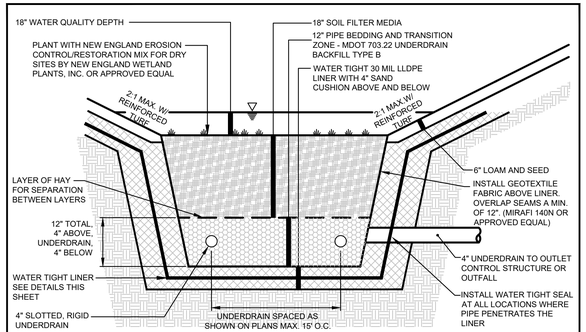
(C) RIPRAP INLET APRON DETAIL
N.T.S.



(G) BIORETENTION FILTER (RAIN GARDEN)
N.T.S.

SECTION A-A

STRUCTURE NOTES:
1. FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE SAFETY STEPS
2. EXTERIOR OF MANHOLE SHALL BE TREATED WITH 2 COATS OF WATERPROOF SEALANT
3. FOR JOINTS OF WATERTIGHT MANHOLE KENT SEAL, RAM NEK OR "O" RING MUST MEET AASHTO M198B
4. ALL PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C478 AND BE DESIGNED FOR H-20 LOADING

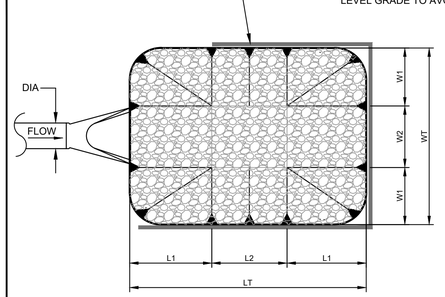


NOTES:
1. FILTER IS DESIGNED TO TREAT 1.0" RUNOFF FROM PAVED OR IMPERVIOUS SURFACES AND 0.4" RUNOFF FROM LANDSCAPED AREAS.
2. SEASONAL HIGH GROUND WATER ELEVATION IS EXPECTED TO BE ABOVE THE BOTTOM OF THE FILTER.
3. 30 MIL LLDPE LINER SHALL BE PLACED ABOVE PREPARED SUBGRADE IN 2 - 4" SAND CUSHION LIFTS TO PREVENT GROUNDWATER INFILTRATION AND PROTECT THE GROUNDWATER. LINER SHALL EXTEND UP FILTER SIDE SLOPES TO THE 25 YR. FLOOD STAGE. ONSITE CLAY SOILS MAY BE USED INSTEAD OF A LINER, IF AVAILABLE.

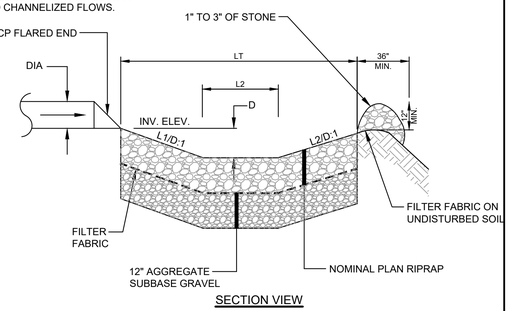
(D) TYPICAL SECTION FOR UNDERDRAINED GRASSED SOIL FILTER W/ LLDPE LINER
N.T.S.

CONSTRUCT LEVEL SPREADER AT TOP OF POOL. TOP OF SPREADER SHALL BE A LEVEL GRADE 18" ABOVE TOP OF PLUNGE POOL.

NOTE:
THE PURPOSE OF THIS STRUCTURE IS TO INDUCE SHEET FLOW TO ADJACENT AREAS. THE OUTLET OF THE PLUNGE POOL SHALL BE CONSTRUCTED AT A LEVEL GRADE TO AVOID CHANNELIZED FLOWS.



PLAN VIEW



SECTION VIEW

SCHEDULE									
DIA.	L1	L2	LT	W1	W2	WT	D	STONE D_{50}	RIPRAP THICKNESS
15"	3'	2'	8'	3'	2'	8'	1'	6"	14"
24"	3'	2'	8'	3'	2'	8'	1'	6"	14"

(H) RIPRAP PLUNGE POOL WITH LEVEL LIP SPREADER DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SWM.dwg		

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Drawing Name: STORMWATER MANAGEMENT DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.3

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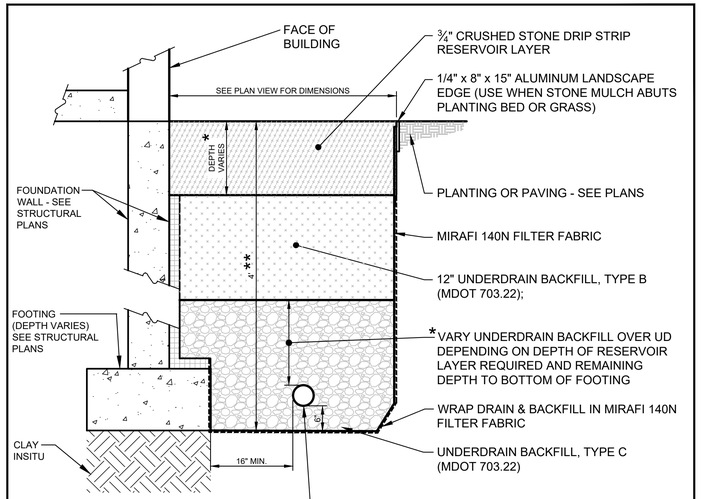
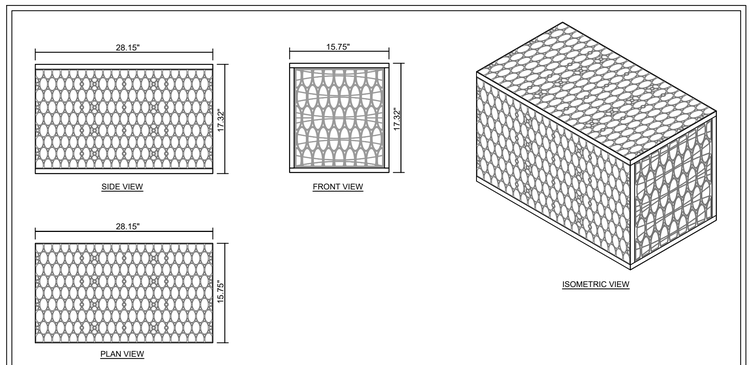


*SEE ROOF DRIP EDGE FILTER PLAN VIEW FOR SPECIFIC DRIP EDGE DIMENSIONS.

**SEE GEOTECH & STRUCTURAL PLANS FOR FINAL BOTTOM OF FOOTING EL. TOP OF UNDERDRAIN PIPE EL. SHALL BE SET 6" ABOVE THE BOTTOM OF FOOTING EL.

(A) DRIP EDGE FILTER AREA DETAIL

N.T.S.



MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM)
WIDTH = 15.75 IN. (400 MM)
HEIGHT = 17.32 IN. (440 MM)
TANK VOLUME = 4.44 CF
STORAGE VOLUME = 4.22 CF
VOID INTERNAL VOLUME: 95%
VOID SURFACE AREA: 90%

LOAD RATING: 33.4 PSI, (MODULE ONLY)
HS25, (WITH ACF COVER SYSTEM)

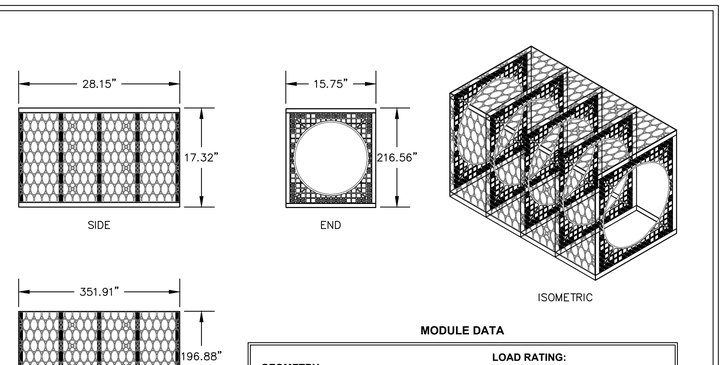
MATERIAL: 100% RECYCLED POLYPROPYLENE

SMALL PLATES PER SEGMENT/TOTAL: 5/5

ACF ENVIRONMENTAL — LET'S GET IT DONE

R-TANK^{HD} - SINGLE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com 5/16



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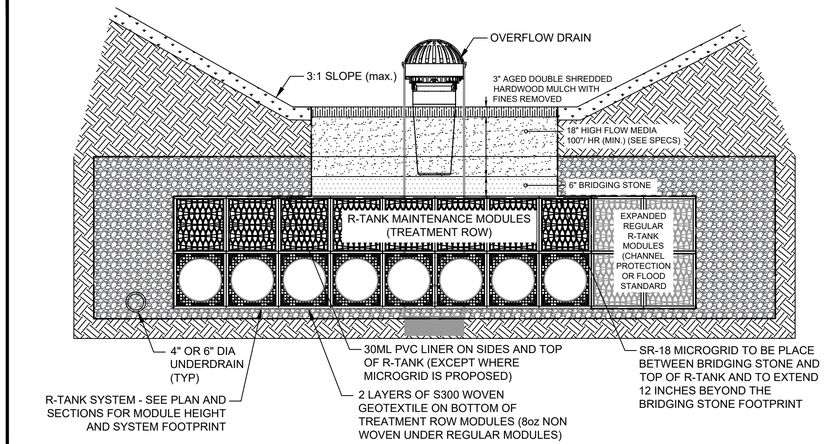
LOAD RATING:
33.4 PSI, (MODULE ONLY)
HS20, (WITH ACF COVER SYSTEM)
MATERIAL:
100% RECYCLED POLYPROPYLENE
SMALL PLATES PER SEGMENT/TOTAL:
5/5

09/25/2017

ACF ENVIRONMENTAL — LET'S GET IT DONE

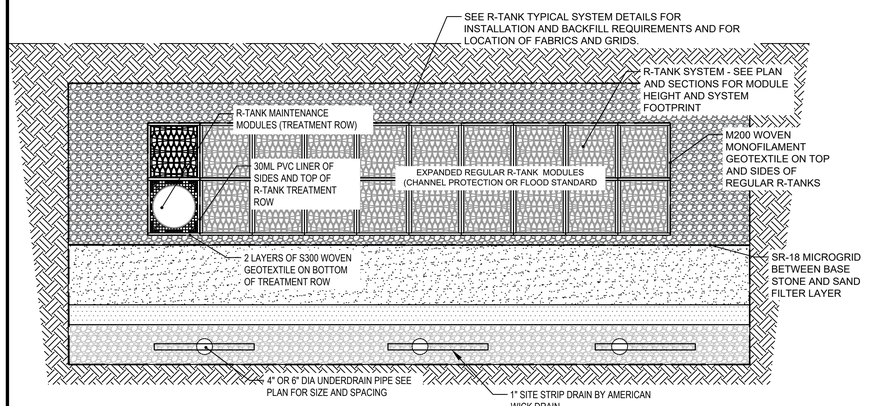
R-TANK^{HD} - SINGLE MAINTENANCE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



FOCALPOINT WITH R-TANK TREATMENT ROW

N.T.S.



SUBSURFACE SAND FILTER WITH R-TANK TREATMENT ROW

N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Client/Owner: **DC Predevelopment LLC**
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Drawing No. C-7.4

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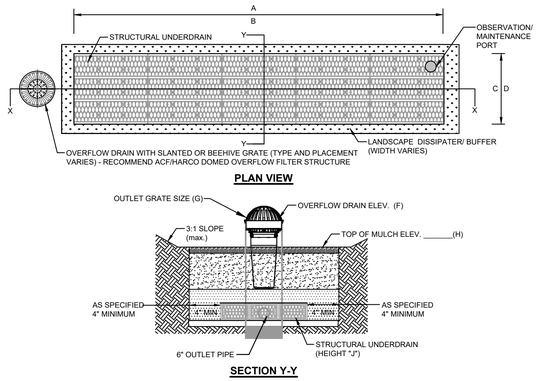
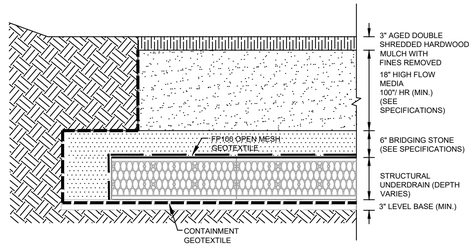


Ⓐ FOCALPOINT CONSTRUCTION GUIDE
N.T.S.



FOCALPOINT HP PERFORMANCE SPECIFICATION:

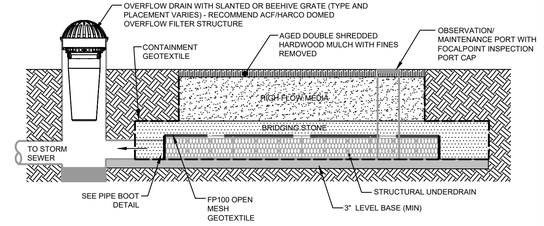
HIGH PERFORMANCE MEDIA

HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 100"PER HOUR INFILTRATION RATE.

HIGH PERFORMANCE STRUCTURAL UNDERDRAIN

MUST HAVE A MINIMUM OF 19 SQUARE INCHES OF ORIFICE OPENING PER SQUARE FOOT.
MUST MEET H20 LOADING REQUIREMENTS.
MUST BE MODULAR IN NATURE AND ASSEMBLED ON SITE.
MUST HAVE MINIMUM 90% INTERIOR VOID SPACE.

Ⓓ FOCALPOINT DETAILED CROSS SECTION
N.T.S.



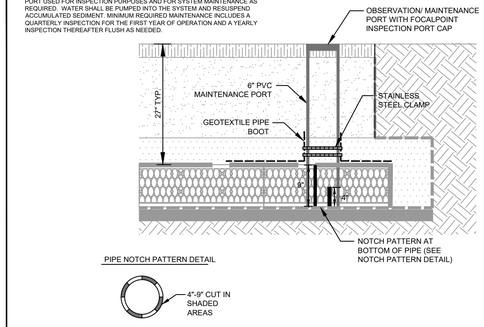
Ⓖ FOCALPOINT SECTION X-X
N.T.S.

FOCALPOINT KEY DIMENSIONAL DATA		
FOCALPOINT ID		FP-1
A	FOCALPOINT LENGTH	6.67'
B	# UNDERDRAIN LONG	1
C	FOCALPOINT WIDTH	3.0'
D	# UNDERDRAIN WIDE	1
E	WATER QUALITY VOLUME	N / A
F	OVERFLOW ELEVATION	21.60
G	OUTLET GRATE SIZE	12"
H	TOP OF MULCH	21.10
J	UNDERDRAIN HEIGHT	SINGLE

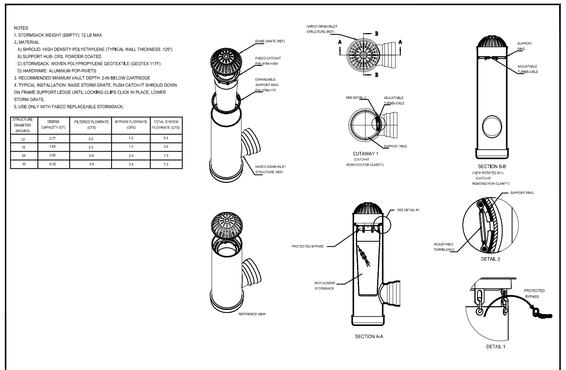
Ⓑ FOCALPOINT KEY DIMENSIONAL DATA
N.T.S.

OBSERVATION/ MAINTENANCE PORT

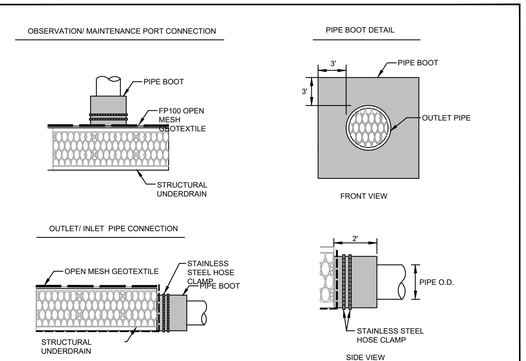
PORT USED FOR INSPECTION PURPOSES AND FOR SYSTEM MAINTENANCE AS REQUIRED. WATER SHALL BE PUMPED INTO THE SYSTEM AND RESUSPEND ACCUMULATED SEDIMENT. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION FOR THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER FLUSH AS NEEDED.



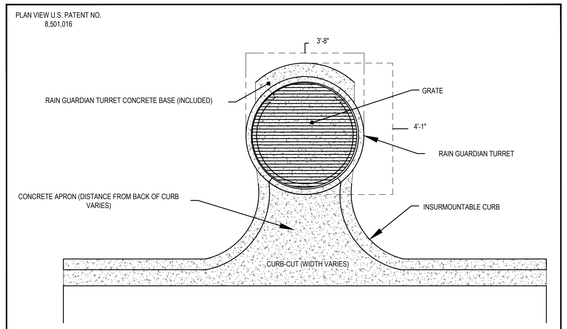
Ⓔ FOCALPOINT OBSERVATION PORT DETAIL
N.T.S.



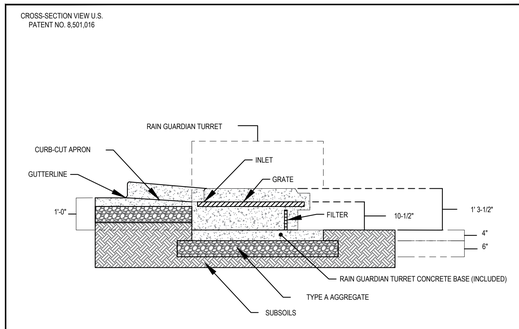
Ⓗ ACF/HARCO DOMED OVERFLOW FILTER RISER
N.T.S.



Ⓒ FOCALPOINT PIPE CONNECTION DETAIL
N.T.S.



Ⓕ RAIN GUARDIAN TURRET - PLAN
N.T.S.



Ⓘ RAIN GUARDIAN TURRET - SECTION
N.T.S.

NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing No. C-7.5

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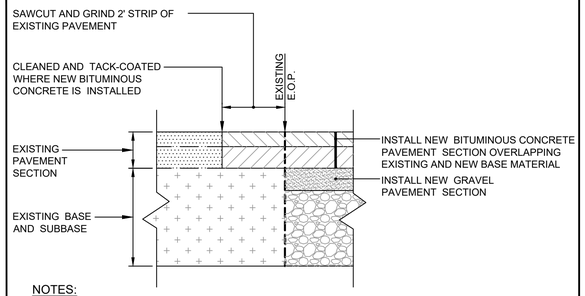
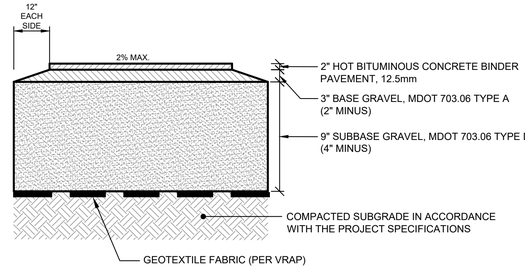


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

(A) TYPICAL PAVEMENT SECTION NEW PAVEMENT ADJACENT TO EXISTING PAVEMENT

N.T.S.

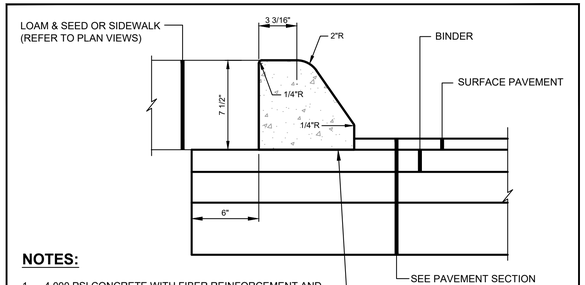


NOTES:

1. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
2. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS.

(D) BITUMINOUS CONCRETE SIDEWALK SECTION FOR SITE INSTALLATION ONLY

N.T.S.



NOTES:

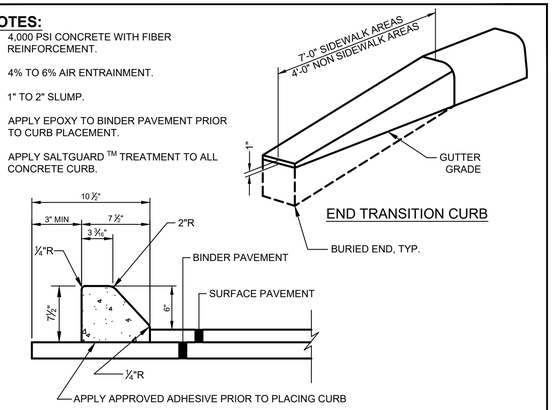
1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT AND SAWCUT JOINTS AT NO MORE THAN 30' SPACING
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD™ CHLORIDE INHIBITOR TO ALL NEW CONCRETE CURBING UPON COMPLETION OF CURING PERIOD.
6. ALL TIPDOWNS SHALL HAVE REINFORCEMENT TO AVOID CRACKING. TIPDOWNS SHALL HAVE NO MORE THAN 1/2" REVEAL AT THE END.

(G) DIRECT TO BINDER SLIPFORM CONCRETE CURB

N.T.S.

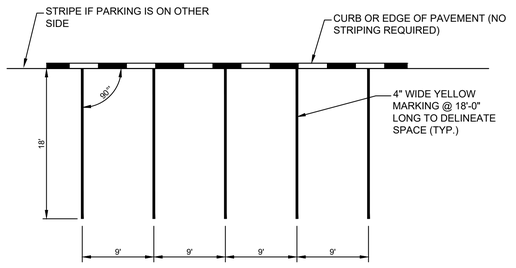
NOTES:

1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT.
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD ™ TREATMENT TO ALL CONCRETE CURB.



(J) EXTRUDED SLIPFORM SLOPED CONCRETE CURB DETAIL

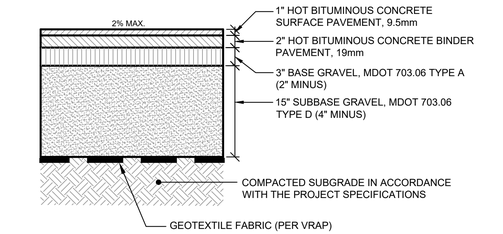
N.T.S.



NOTE:
WHEN PARKING IS ON A CURVE THE NARROWEST PORTION OF THE PARKING STALL SHALL MEET THE WIDTH SHOWN.

(B) STANDARD PARKING STALL STRIPING

N.T.S.

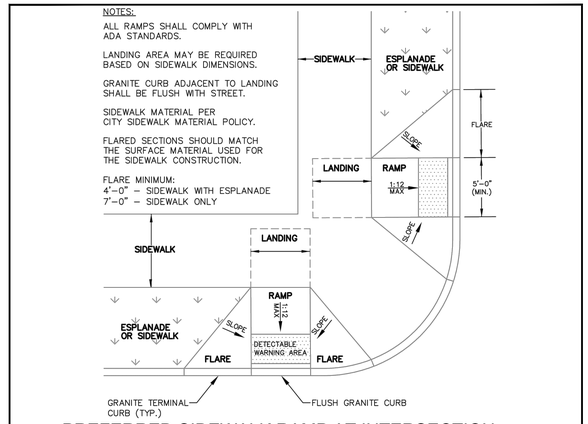


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS AND DRIVEWAYS.

(E) STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT SECTION

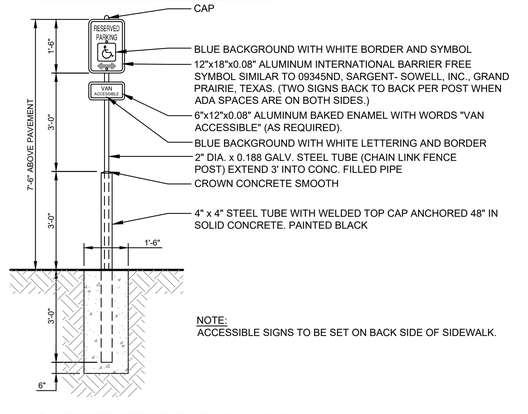
N.T.S.



(H) PREFERRED SIDEWALK RAMP AT INTERSECTION

N.T.S.

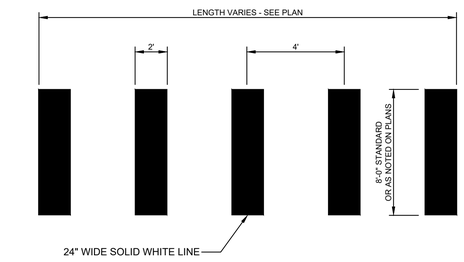
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTE:
ACCESSIBLE SIGNS TO BE SET ON BACK SIDE OF SIDEWALK.

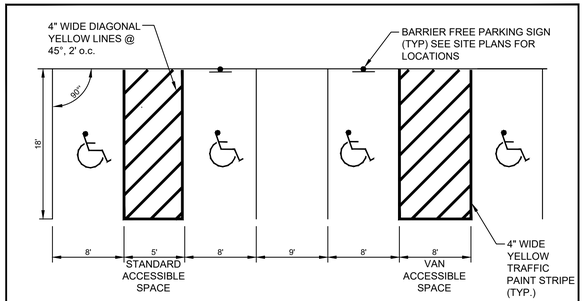
(K) BARRIER FREE PARKING SIGN

N.T.S.



(C) CROSSWALK STRIPING DETAIL

N.T.S.

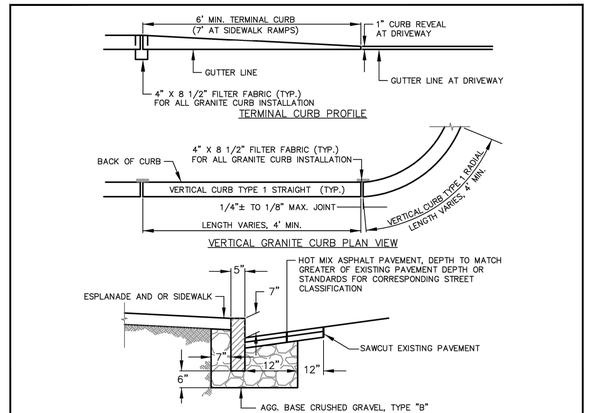


NOTES:

1. ONE IN EIGHT BARRIER FREE SPACES (MIN.) MUST BE VAN ACCESSIBLE. THIS HAS BEEN PROVIDED FOR ON THE SITE LAYOUT PLAN.
2. BARRIER FREE GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN PARKING STALL. SYMBOL TO BE PAINTED ON BLUE NON-SKID BACKGROUND.

(F) TYPICAL BARRIER FREE PARKING STALL DIMENSIONS

N.T.S.



(I) VERTICAL GRANITE CURB INSTALLATION IN EXIST. STREETS

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–DETAILS.dwg		

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Drawing Name: SITE DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.0

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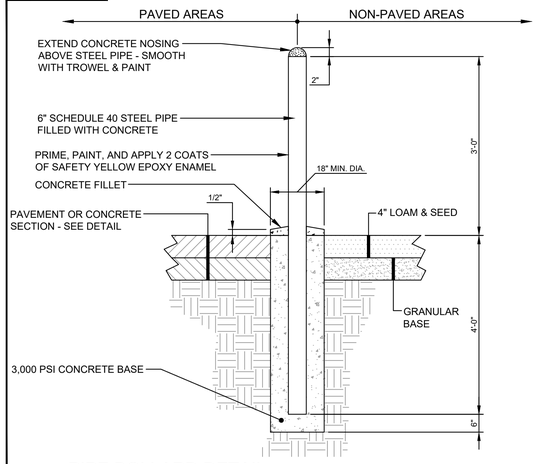
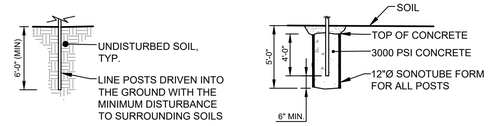


A PIPE BOLLARD DETAIL
N.T.S.



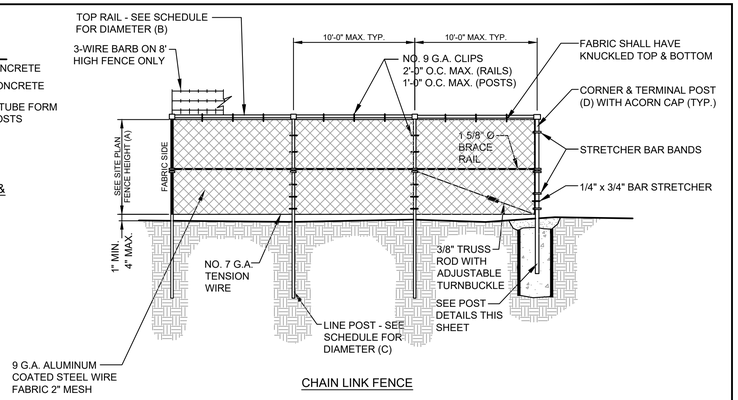
INTERMEDIARY LINE POST DETAIL

TERMINAL, CORNER & GATE POST DETAIL

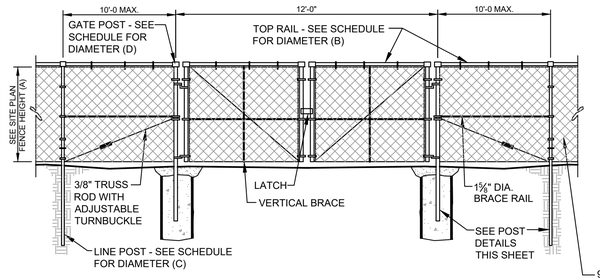
POST DIAMETER SCHEDULE	
GATE SIZE	PIPE DIAMETER
6' AND LESS	3" O.D., 5.79 LBS/FT
6' TO 10'	4" O.D., 9.10 LBS/FT

CHAIN LINK FENCE INSTALLATION SCHEDULE			
FENCE HEIGHT (A)	TOP RAIL PIPE DIA. (B)	LINE POST PIPE DIA. (C)	CORNER, TERMINAL & GATE POST PIPE DIA. (D)
4'	1.66"	1.90"	2.375"
6'	1.66"	1.90"	2.375"
8'	1.66"	2.375"	2.875"
10'	1.66"	2.875"	2.875"

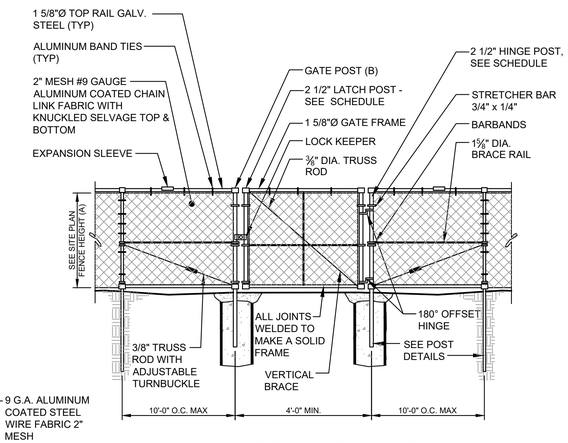
NOTES:
1. DIMENSIONS FOR PIPE DIAMETERS ARE NOMINAL OUTSIDE DIAMETERS.
2. REFER TO PLANS FOR LOCATION & HEIGHT OF FENCES TO BE INSTALLED.
3. REFER TO PLANS FOR GATE WIDTH AT EACH INSTALLATION.
4. ALL FENCE FABRIC, POSTS AND HARDWARE SHALL BE BLACK VINYLCOATED.



CHAIN LINK FENCE

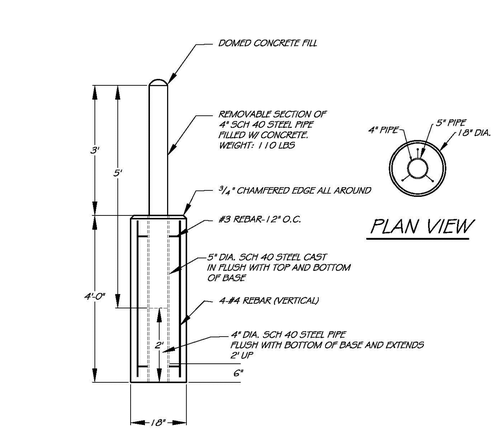


12' WIDE DOUBLE SWINGING GATE

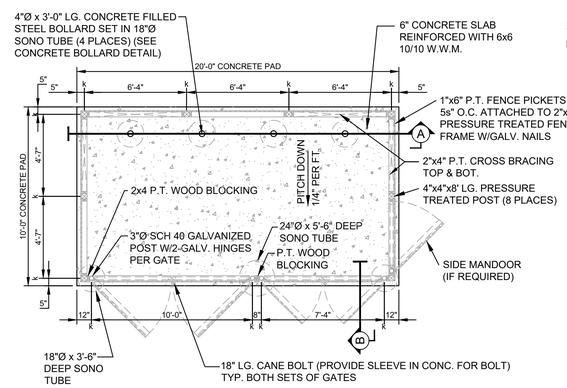


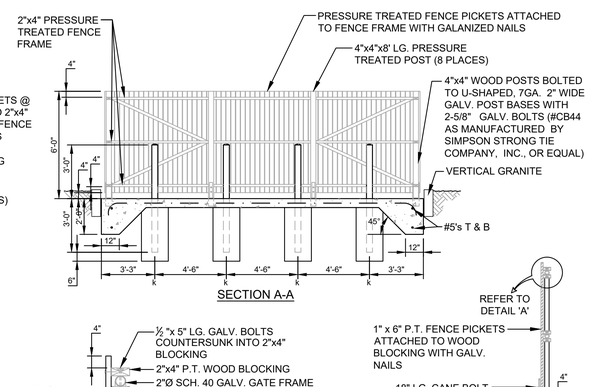
4' WIDE PEDESTRIAN SINGLE SWING GATE

C CHAIN LINK FENCE AND GATES
N.T.S.

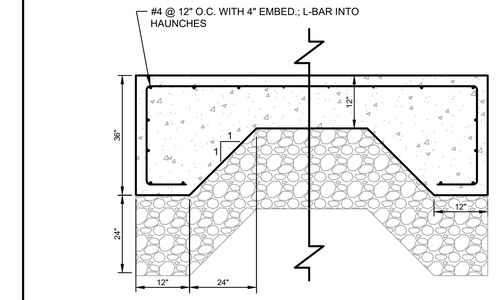


B REMOVABLE PIPE BOLLARD DETAIL
N.T.S.



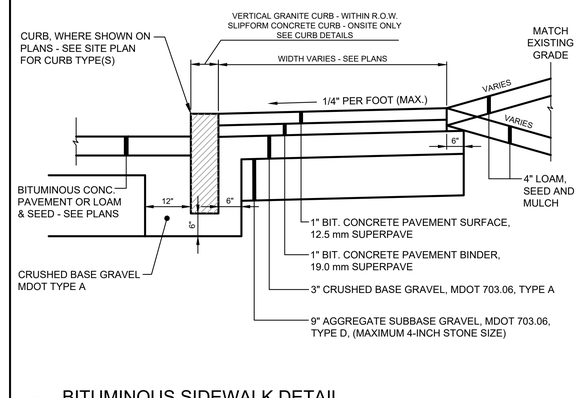


D DUMPSTER ENCLOSURE PLAN AND DETAILS
N.T.S.



NOTES:
1. SEE SITE LAYOUT PLAN FOR PAD DIMENSIONS.
2. 24" BASE GRAVEL SHALL BE MDOT 703.06 STANDARDS FOR TYPE D GRAVEL.
3. CONCRETE PAD SHALL HAVE COMPRESSIVE STRENGTH OF 4,500 PSI.
4. PROVIDE BROOM FINISH AND SALTGUARD™ CHLORIDE INHIBITOR.

E CONCRETE GENERATOR PAD DETAIL
N.T.S.



F BITUMINOUS SIDEWALK DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

George R. Roberts Co.
Precast Concrete Products
192 Biddeford Rd.
Alfred, Maine 04002
(207)-324-6571
(207)-324-8533

18" DIA. x 4' PIPE BOLLARD- 4" PIPE

CONTRACTOR: SHAW BROS — 4/23/19
ENGINEER: — REVISION:
JOB: ROCK ROW

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: SITE DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.1

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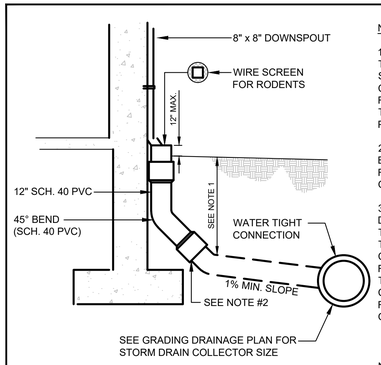


NOTES:

1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.

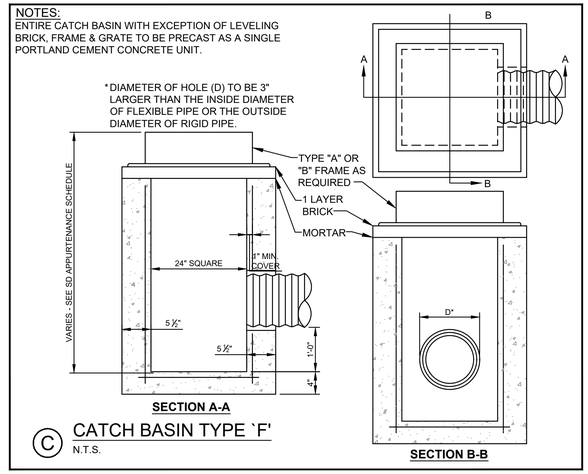
2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

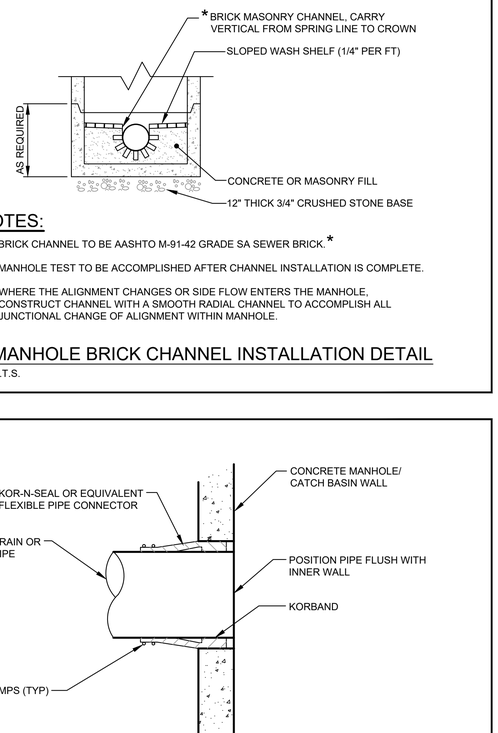
NOTE:
ARCHITECT MAY ELECT TO USE INTERNAL ROOF DRAINS - REFER TO ARCHITECTURAL PLANS

(A) ROOF DRAIN DETAIL
N.T.S.

NOTES:
ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK, FRAME & GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT.



(C) CATCH BASIN TYPE `F'
N.T.S.



NOTES:

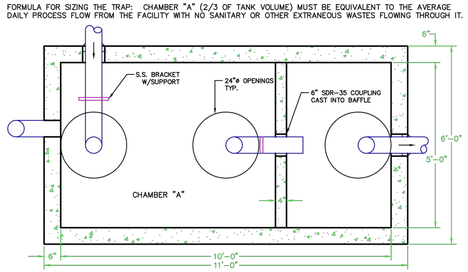
1. BRICK CHANNEL TO BE AASHTO M-91-42 GRADE SA SEWER BRICK *
2. MANHOLE TEST TO BE ACCOMPLISHED AFTER CHANNEL INSTALLATION IS COMPLETE.
3. WHERE THE ALIGNMENT CHANGES OR SIDE FLOW ENTERS THE MANHOLE, CONSTRUCT CHANNEL WITH A SMOOTH RADIAL CHANNEL TO ACCOMPLISH ALL JUNCTIONAL CHANGE OF ALIGNMENT WITHIN MANHOLE.

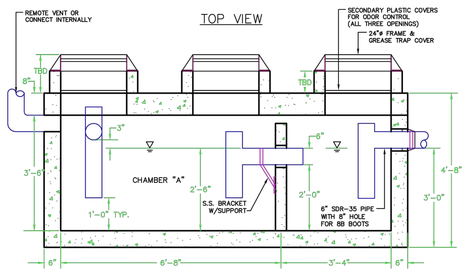
(F) MANHOLE BRICK CHANNEL INSTALLATION DETAIL
N.T.S.

DESIGN NOTES:
1. CONCRETE 5000 PSI AT 28 DAYS.
2. H-20 LOADING
3. JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT (ASSHTO M-19)
4. ALL TEES/BAFFLES PROVIDED BY PRECAST.

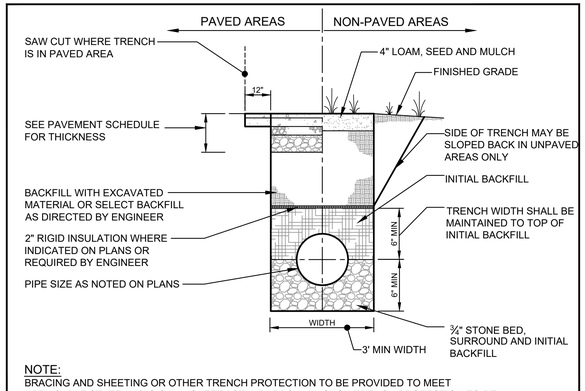
THIS STRUCTURE MUST DISCHARGE TO A CITY OF PORTLAND STANDARD MANHOLE WITH CHANNEL (CONTROL/SAMPLING MANHOLE).

FORMULA FOR SIZING THE TRAP: CHAMBER "A" (2/3 OF TANK VOLUME) MUST BE EQUIVALENT TO THE AVERAGE DAILY PROCESS FLOW FROM THE FACILITY WITH NO SANITARY OR OTHER EXTRANEOUS WASTES FLOWING THROUGH IT.



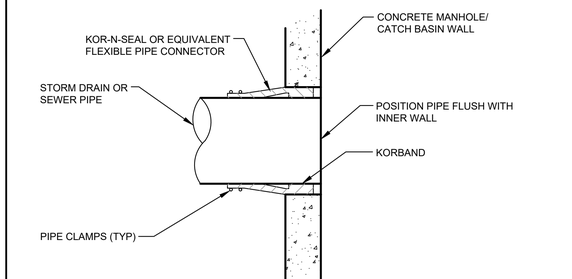


(B) CITY STANDARD GREASE TRAP DETAIL
N.T.S.

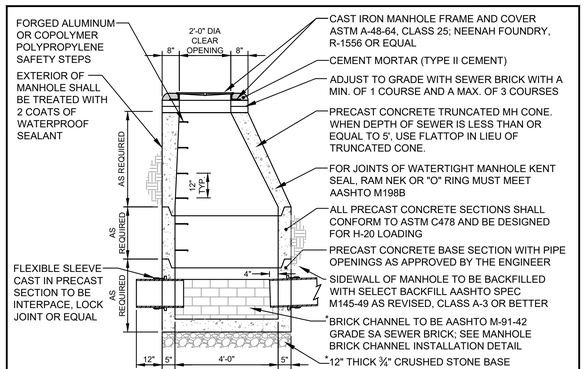


NOTE:
BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

(D) TYPICAL SEWER AND STORM DRAIN TRENCH SECTION
N.T.S.

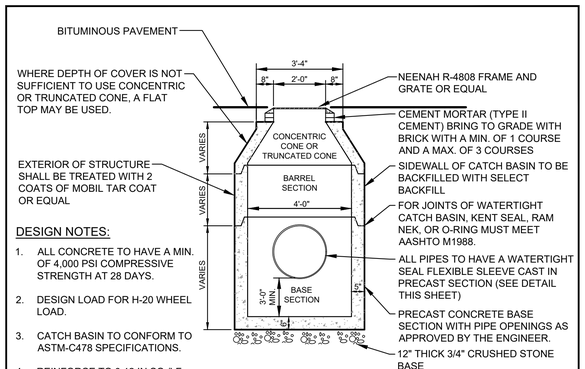


PIPE CONNECTION TO PRECAST CONCRETE SANITARY SEWER AND STORM DRAINAGE STRUCTURES
(G) N.T.S.



(E) 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL
N.T.S.

NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



DESIGN NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

(H) 4'-0" PRECAST CATCH BASIN DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: STORM DRAIN & UTILITY DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.2

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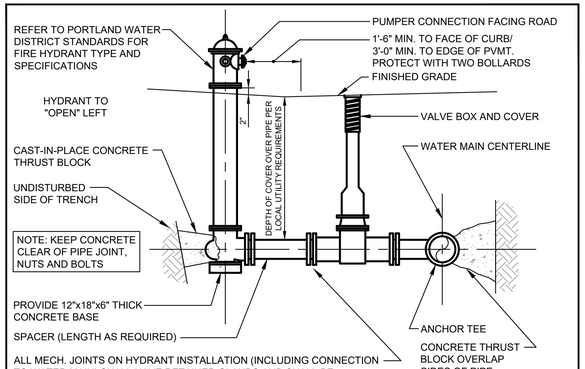


SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (C)

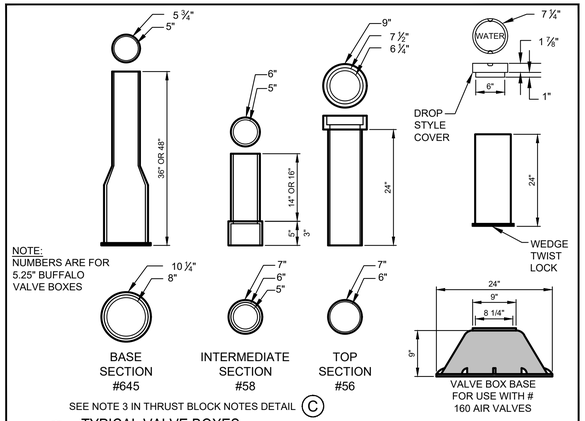
(A) FIRE HYDRANT INSTALLATION DETAIL
N.T.S.

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.
2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.
4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING.TM

BEARING SURFACE REQUIRED IN SQUARE FEET

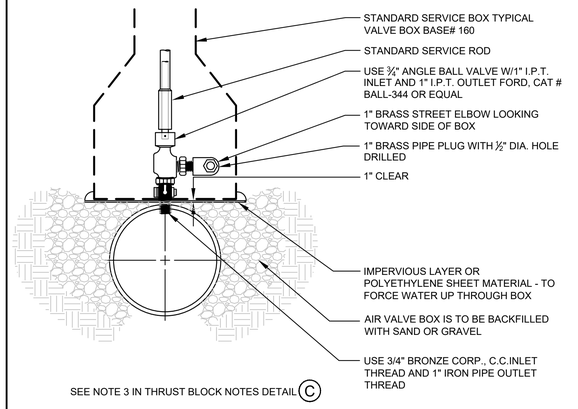
PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
6"/8"	5.0	5.0	5.0	6.5	5.0
12"	11.5	11.5	11.5	20.0	22.0

(C) THRUST BLOCK NOTES
N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (C)

(E) TYPICAL VALVE BOXES
N.T.S.

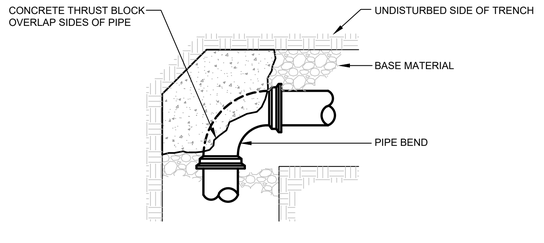


SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (C)

TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT-LB.	LENGTH OF WRENCH IN *
2 - 3	5/8	45 - 60	8
4 - 24	3/4	75 - 90	10
30 - 36	1	85 - 100	12
42 - 48	1 1/4	105 - 120	14

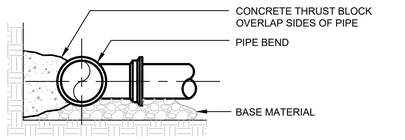
* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

(H) TYPICAL AIR VALVE SECTION (1")
N.T.S.



PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

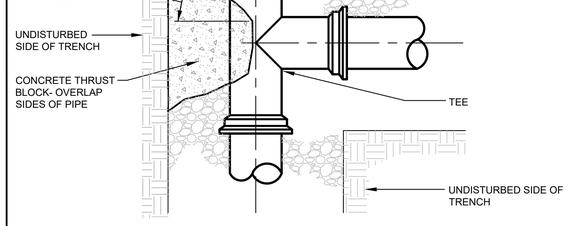
THRUST/RETAINER GLAND SCHEDULE		
⅛ BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK WITH GRIPRING™ MECHANICAL JOINT RESTRAINT
⅛ BEND	(45°)	THRUST BLOCK w/ GRIPRING™
1/16 BEND	(22 ½°)	THRUST BLOCK w/ GRIPRING™
1/32 BEND	(11 ¼°)	THRUST BLOCK w/ GRIPRING™

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

NOTES:

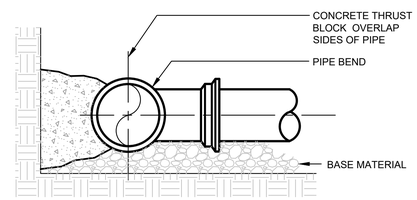
1. THE PORTLAND WATER DISTRICT MAY HAVE INSPECTION FEES AND REQUIRE OBSERVATION OF ALL PIPING INSTALLATION BEFORE BURIAL. REFER TO SPECIFICATIONS.
2. FOR WATER MAIN LAYOUT SEE UTILITY PLAN, SHEET C-6.0.
3. FOR WATER MAIN TRENCH SEE DETAILS ON THIS SHEET.
4. REFER TO PORTLAND WATER DISTRICT SPECIFICATIONS FOR TESTING AND CHLORINATION REQUIREMENTS.
5. ALL HYDRANTS AND VALVES TO BE EPOXY COATED, NUTS AND BOLTS TO BE STAINLESS STEEL.
6. SERVICE RODS FOR DOMESTIC SERVICE OR AIR VALVES TO BE STAINLESS STEEL.

(B) TYPICAL THRUST BLOCK PLACEMENT BENDS
N.T.S.



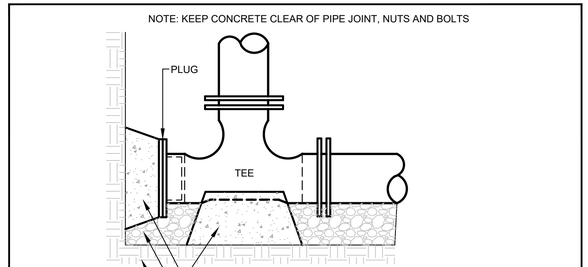
PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

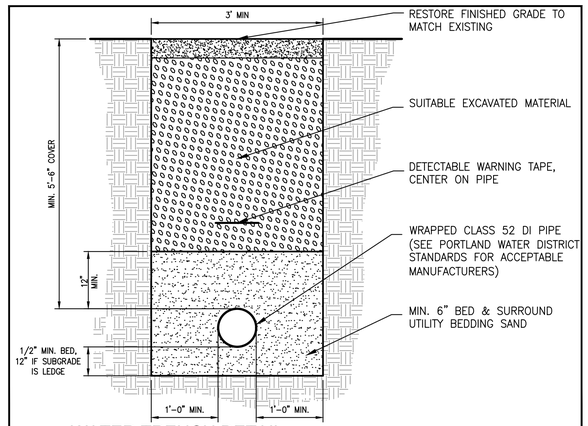
(D) TYPICAL THRUST BLOCK PLACEMENT ON TEES
N.T.S.



USE GRIPRINGS™ AT ALL RESTRAINED JOINTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (C)

(F) STANDARD TEE BLOCKING DETAIL
N.T.S.



(G) WATER TRENCH DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: WATER DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.3

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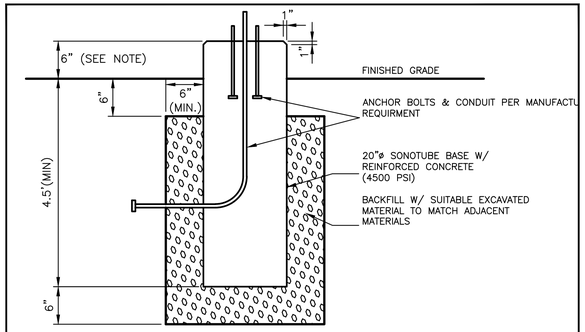
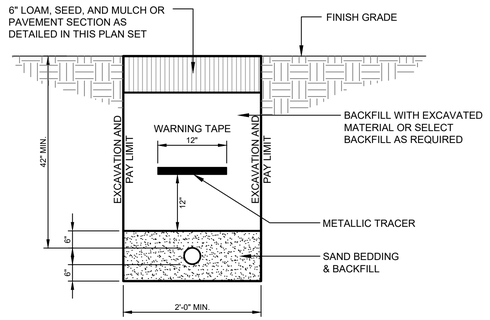


NOTES:

1. ALL LIGHT POLE BASES TO BE SET 6" ABOVE GRADE (MINIMUM) AND LIGHT BOLLARD BASES SHALL BE SET 3" ABOVE GRADE. OR AS DESCRIBED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL CONFIRM PRIOR TO ANY POLE INSTALLATIONS.
2. BASE SIZE TO BE CONFIRMED WITH THE LIGHT POLE SUPPLIER.

(A) TYPICAL PARKING LOT LIGHTING POLE FOUDATION

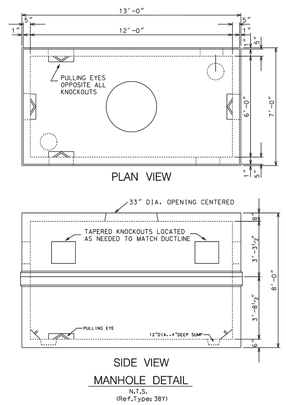
N.T.S.

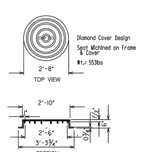


NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

(B) GAS SERVICE TRENCH SECTION

N.T.S.



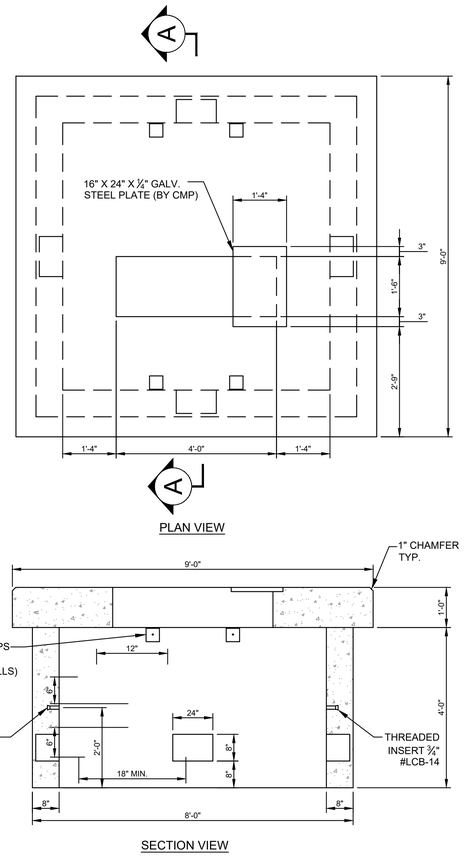


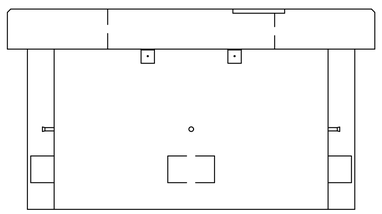
NOTES

1) Vault shall be designed to withstand H20 wheel loading with 6 inches of overburden. The design shall also comply with the strength requirements of National Electrical Safety Code Section 323A. Provide shop drawings stamped by a State of Maine Licensed Professional Engineer upon Request.
2) Joints sealed with asphalt.
3) Mountings for cable racks etc. cost in wall by further plans or field located.
4) Manhole shall be set on a suitable gravel base.
5) Cables are to be racked along one wall only.

(C) PRECAST CONCRETE 38Y MANHOLE

N.T.S.



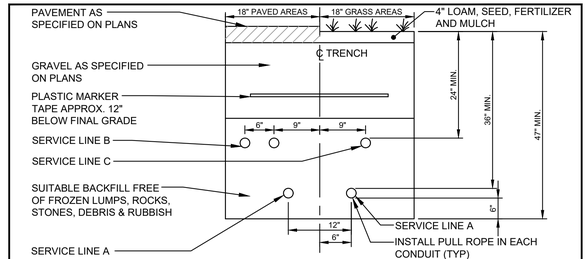


NOTES:

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT.
2. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS, AS MANUFACTURED BY SUPERIOR CONCRETE OR EQUAL.
3. FINAL SIZING TO BE BY ELECTRICAL DESIGNER.
4. ONE 8" x 24" KNOCKOUT PROVIDED EACH WALL.
5. FOR 750 - 5000 KVA THREE PHASE TRANSFORMER.
6. FINISH GRADE SHALL BE GRADED TO ALLOW SURFACE WATER TO FLOW AWAY FROM THE PAD.

(D) 9'-0" TRANSFORMER PAD

N.T.S.

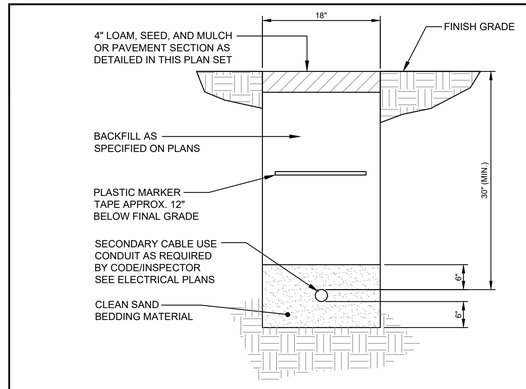


NOTES:

1. FOR CONDUIT TYPES AND SIZES SEE ELECTRICAL PLAN

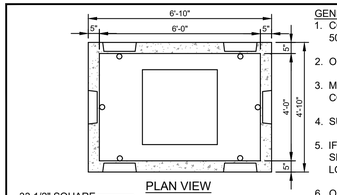
(E) UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS

N.T.S.



(F) SECONDARY ELECTRICAL TRENCH DETAIL

N.T.S.



GENERAL NOTES

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 5000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT
2. OPENINGS SIZED FOR 4" & 6" CONDUITS.
3. MEETS ALL CENTRAL MAINE POWER CO.SPECIFICATIONS.
4. SUITABLE FOR PRIMARY CABLE INSTALLATIONS.
5. IF INSTALLED IN A PAVED AREA, ORDER PRECAST SLAB FOR USE UNDER HANDHOLE FOR H-20 LOADING.
6. ORDER 3 PIECE ETHERIDGE FOUNDRY "TYPE B" CASTING. MINIMUM ONE COURSE OF BRICK TO GRADE.

(G) SPLICE BOX DETAIL

N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: ELECTRIC & UTILITY DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.4

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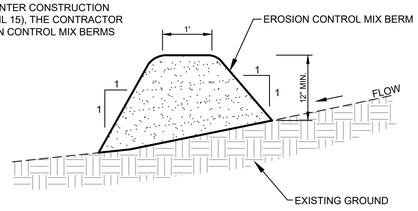
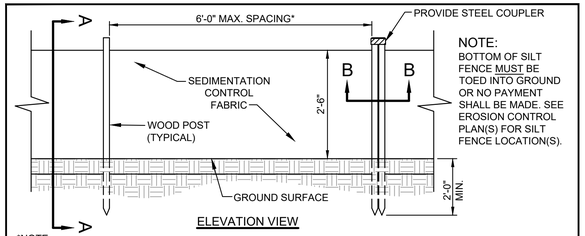
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- PH SHALL FALL BETWEEN 5.0 AND 8.0.

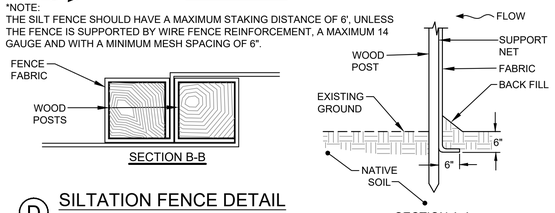
(A) EROSION CONTROL MIX BERM DETAIL
N.T.S.



NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND OR NO PAYMENT SHALL BE MADE. SEE EROSION CONTROL PLAN(S) FOR SILT FENCE LOCATION(S).

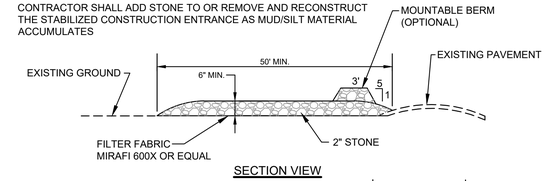
ELEVATION VIEW

*NOTE:
THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6', UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT, A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".

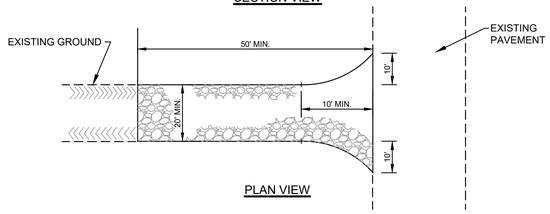


(D) SILTATION FENCE DETAIL
N.T.S.

NOTE:
CONTRACTOR SHALL ADD STONE TO OR REMOVE AND RECONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES

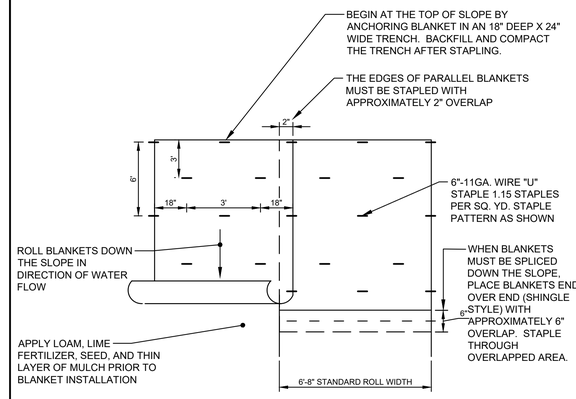


SECTION VIEW

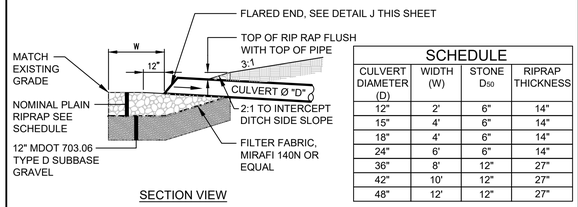


PLAN VIEW

(G) STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

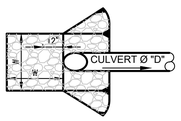


PLAN VIEW



SECTION VIEW

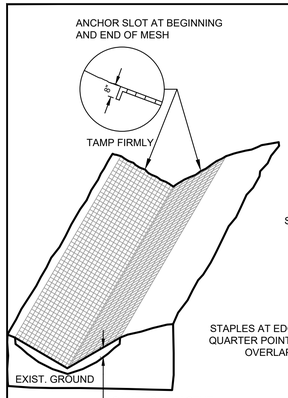
SCHEDULE			
CULVERT DIAMETER (D)	WIDTH (W)	STONE D_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"

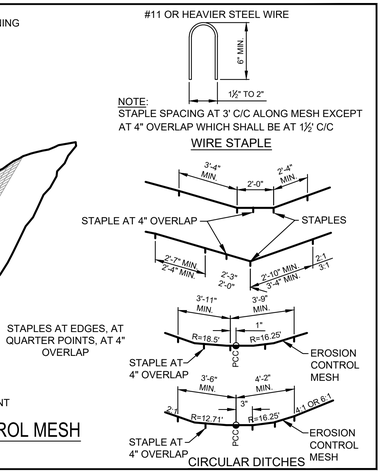


PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(B) PIPE/CULVERT INLET APRON
N.T.S.



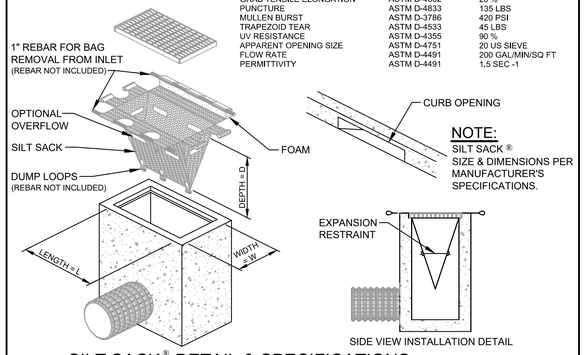


(E) EROSION CONTROL MESH
N.T.S.

NOTE: THE SILT SACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

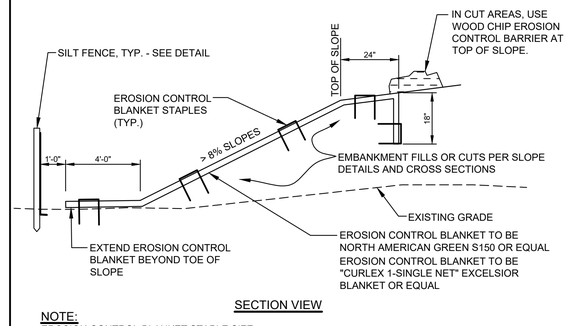
HIGH-FLOW SILT SACK ® (FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1



NOTE:
SILT SACK ® SIZE & DIMENSIONS PER MANUFACTURER'S SPECIFICATIONS.

(H) SILT SACK ® DETAIL & SPECIFICATIONS
N.T.S.

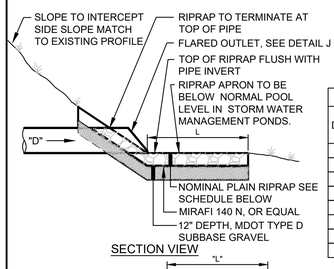


SECTION VIEW

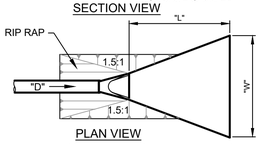
NOTE:
EROSION CONTROL BLANKET STAPLE SIZE AND DISTRIBUTION PER MANUFACTURER'S SPECIFICATIONS.

NOTES:
1. IF GRASS CATCH IS NOT 75% BY SEPTEMBER 1, ADD #4 REBARS @ 3'-0" ROWS @ 3' CENTERS. REMOVE OR DRIVE REBARS 3" BELOW GRADE IN SPRING FOLLOWING TURF ESTABLISHMENT.
2. MULCH RATE TO BE 1/2 THE RATE OTHERWISE SPECIFIED.

(J) EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL
N.T.S.



SECTION VIEW

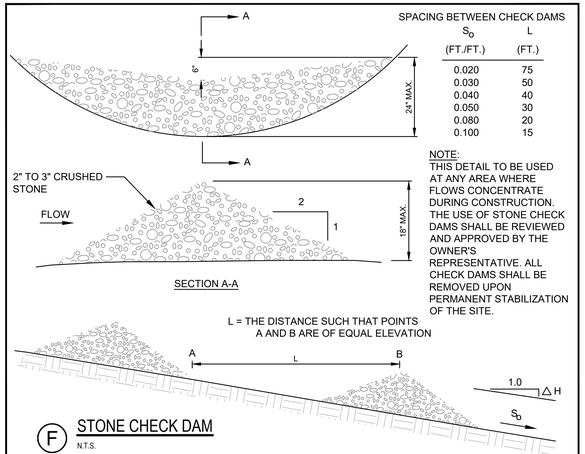


PLAN VIEW

SCHEDULE				
CULVERT DIAMETER (D)	WIDTH (W)	LENGTH (L)	STONE D_{50}	RIPRAP THICKNESS
12"	8'	10'	6"	14"
15"	8'	10'	6"	14"
18"	10'	14'	6"	14"
24"	12'	16'	9"	21"
30"	12'	16'	12"	27"
36"	20'	24'	12"	27"
42"	24'	26'	12"	27"
48"	28'	32'	12"	27"

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(C) PIPE/CULVERT OUTLET APRON
N.T.S.

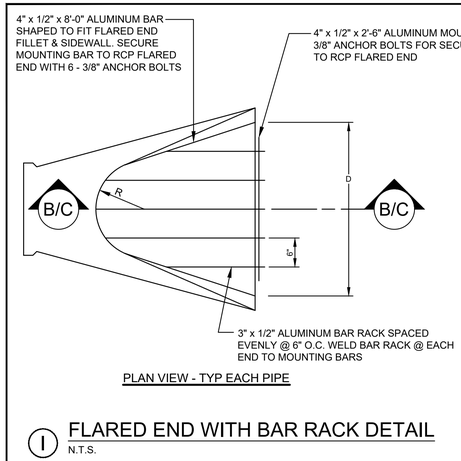


SECTION A-A

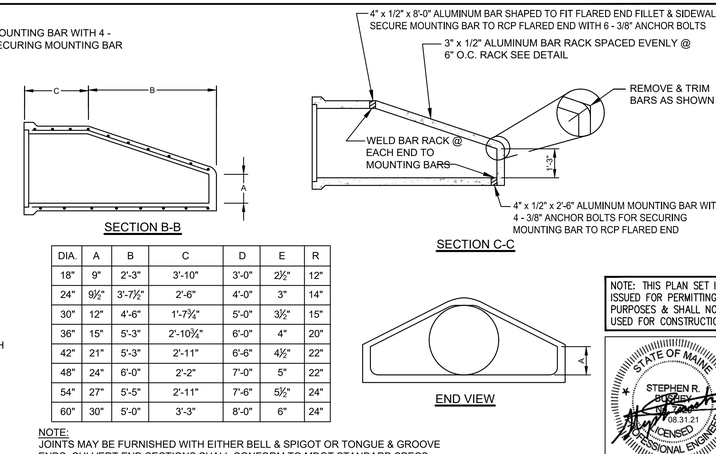
SPACING BETWEEN CHECK DAMS	
S_o (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15

NOTE:
THIS DETAIL TO BE USED AT ANY AREA WHERE FLOWS CONCENTRATE DURING CONSTRUCTION. THE USE OF STONE CHECK DAMS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL CHECK DAMS SHALL BE REMOVED UPON PERMANENT STABILIZATION OF THE SITE.

(F) STONE CHECK DAM
N.T.S.



PLAN VIEW - TYP EACH PIPE



DIA.	A	B	C	D	E	R
18"	9"	2'-3"	3'-10"	3'-0"	2½"	12"
24"	9½"	3'-7½"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7¾"	5'-0"	3½"	15"
36"	15"	5'-3"	2'-10¾"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-6"	4½"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"
54"	27"	5'-5"	2'-11"	7'-6"	5½"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"

NOTE:
JOINTS MAY BE FURNISHED WITH EITHER BELL & SPIGOT OR TONGUE & GROOVE ENDS. CULVERT END SECTIONS SHALL CONFORM TO MDOT STANDARD SPECS.

(I) FLARED END WITH BAR RACK DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: EROSION CONTROL DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.5

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1.3.5 EROSION CONTROL MEASURES AND SITE STABILIZATION

THE PRIMARY EMPHASIS OF THE EROSION/SEDIMENTATION CONTROL PLAN, WHICH WILL BE IMPLEMENTED FOR THIS PROJECT, IS AS FOLLOWS:

- DEVELOPMENT OF A CAREFUL CONSTRUCTION SEQUENCE.
- RAPID REVEGETATION OF DENUDED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
- RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID RILL AND GULLY EROSION.
- THE USE OF ON-SITE MEASURES TO CAPTURE SEDIMENT (HAY BALES/ STONE CHECK DAMS/SILT FENCE, ETC.)

THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED WITHIN THIS REPORT. FOR FURTHER REFERENCE, SEE THE LATEST EDITION OF THE MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS.

A. DEWATERING

WATER FROM CONSTRUCTION TRENCH DEWATERING SHALL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 50 FEET OF A PROTECTED NATURAL RESOURCE. DEWATERING DISCHARGE SHALL NOT BE DIRECTED ACROSS ADJACENT PROPERTIES IN A CONCENTRATED MANNER.

B. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION.

(a) **INSPECTION AND CORRECTIVE ACTION**. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

(b) **MAINTENANCE**. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

(c) **DOCUMENTATION**. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO CITY STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

C. TEMPORARY EROSION CONTROL MEASURES

TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED BY THIS REPORT AND AS SHOWN ON THE PLAN SET FOR THE PROJECT. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE OWNER, THE CITY OF PORTLAND, OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.

THE FOLLOWING MEASURES ARE PLANNED AS TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

1. CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO EACH CONSTRUCTION AREA.

2. SILTATION FENCE OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF- BORNE SEDIMENTS UNTIL GRASS AREAS ARE REVEGETATED. THE SILT FENCE AND/OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THIS PACKAGE AND INSPECTED AT LEAST ONCE A WEEK AND BEFORE AND IMMEDIATELY AFTER A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE OR BERM LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. WOOD WASTE COMPOST BERMS ARE NOT TO BE USED ADJACENT TO WETLAND AREAS THAT ARE NOT TO BE DISTURBED.

3. STRAW OR HAY MULCH INCLUDING HYDROSEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND OCTOBER 15TH ON SLOPES OF LESS THEN 15 PERCENT SHALL BE ANCHORED BY APPLYING WATER; MULCH PLACED ON SLOPES OF EQUAL TO OR STEEPER THAN 15 PERCENT SHALL BE COVERED BY A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. FABRIC NETTING AND STAPLES SHALL BE USED ON DISTURBED AREAS WITHIN 50' OF LAKES, STREAMS, AND WETLANDS REGARDLESS OF THE UPSTREAM SLOPE. MULCH PLACED BETWEEN OCTOBER 15TH AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT SHALL BE COVERED WITH A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SLOPES STEEPER THAN 3:1 AND EQUAL TO OR FLATTER THAN 2:1, WHICH ARE TO BE REVEGETATED, SHALL RECEIVE CURLEX BLANKETS BY AMERICAN EXCELSIOR OR EQUAL. SLOPES STEEPER THAN 2:1 SHALL RECEIVE RIPRAP AS NOTED ON THE PLANS. THE MULCH APPLICATION RATE FOR BOTH TEMPORARY AND PERMANENT SEEDING IS 75 LBS PER 1000 SF AS IDENTIFIED IN ATTACHMENT A OF THIS SECTION. MULCH SHALL NOT BE PLACED OVER SNOW.

4. TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:

a) TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN 100 FEET OF ANY WETLANDS WHICH WILL NOT BE DISTURBED AND SHALL BE LOCATED AWAY FROM DRAINAGE SWALES.

b) STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS BY EITHER TEMPORARILY SEEDING THE STOCKPILE BY A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH, SUCH AS HAY, STRAW, OR EROSION CONTROL MIX.

c) STOCKPILES SHALL BE SURROUNDED BY SEDIMENTATION BARRIER AT THE TIME OF FORMATION.

5. ALL DENUDED AREAS THAT ARE WITHIN 100 FEET OF AN UNDISTURBED WETLAND, WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN A BUILDING PAD, PARKING AREA, OR ACCESS DRIVE SUBBASE AREA, SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. IN OTHER AREAS, THE TIME PERIOD MAY BE EXTENDED TO 7 DAYS.

6. FOR WORK, WHICH IS CONDUCTED BETWEEN OCTOBER 15TH AND APRIL 15TH OF ANY CALENDAR YEAR, ALL DENUDED AREAS, SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX, APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 2 DAYS FOR ALL AREAS.

7. MCCAULEY WAY SHALL BE SWEPT TO CONTROL MUD AND DUST AS NECESSARY. ADDITIONAL STONE SHALL BE ADDED TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

8. DURING GRUBBING OPERATIONS STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS AND AS DIRECTED ON THE EROSION CONTROL PLANS.

9. SILT FENCING WITH A MINIMUM STAKE SPACING OF 6 FEET SHALL BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM 14 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHALL BE ANCHORED. A DOUBLE ROW OF SILT FENCE SHALL BE USED ADJACENT TO WETLANDS.

10. WOOD WASTE COMPOST/BARK BERMS MAY BE USED IN LIEU OF SILTATION FENCING. BERMS SHALL BE REMOVED AND SPREAD IN A LAYER NOT TO EXCEED 3" THICK ONCE UPSTREAM AREAS ARE COMPLETED AND A 90% CATCH OF VEGETATION IS ATTAINED.

11. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR APPROVED SEDIMENT BAGS (SUCH AS SILT SACK). INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHALL BE REMOVED AND THE BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE BARRIER. THE BARRIER SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

12. WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MDOT SPECIFICATIONS - SECTION 637 - DUST CONTROL.

13. LOAM AND SEED IS INTENDED TO SERVE, AS THE PRIMARY PERMANENT REVEGETATIVE MEASURE FOR ALL DENUDED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP. APPLICATION RATES ARE PROVIDED IN ATTACHMENT A OF THIS SECTION. SEEDING SHALL NOT OCCUR OVER SNOW.

D. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.) WILL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED. FABRIC NETTING, ANCHORED WITH STAPLES, SHALL BE PLACED OVER THE MULCH IN AREAS AS NOTED IN **TEMPORARY EROSION CONTROL MEASURES** PARAGRAPH 3 OF THIS REPORT. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

2. ALL STORM DRAIN PIPE OUTLETS SHALL HAVE RIPRAP APRONS AT THEIR OUTLET TO PROTECT THE OUTLET AND RECEIVING CHANNEL FROM SCOUR AND DETERIORATION. INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE APRONS SHALL BE INSTALLED AND STABILIZED TO THE EXTENT PRACTICABLE PRIOR TO DIRECTING RUNOFF TO THE TRIBUTARY PIPE OR CULVERT.

1.4 IMPLEMENTATION SCHEDULE

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO ENSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPTIMIZED:

IT IS ANTICIPATED THAT CONSTRUCTION OF BUILDINGS 2-5 AND RELATED INFRASTRUCTURE WILL COMMENCE IN SUMMER OF 2021 AND BE COMPLETED BY SPRING OF 2022.

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE, THIS SHALL BE ACCOMPLISHED BY LIMITING THE DISTURBED AREA.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ACCESS POINTS FROM PAVED ROADWAYS.

2. INSTALL CATCH BASIN INLET PROTECTION, AND PERIMETER SILT FENCE/WOOD WASTE BERMS PRIOR TO GRUBBING RESPECTIVE AREAS.

3. CLEAR AND GRUB AREA TO BE DEVELOPED. INSTALL STONE CHECK DAMS AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.

4. FOUNDATION PREPARATION AREA SHALL BE EXCAVATED FOR INSTALLATION OF THE BUILDING FOOTINGS. BUILDING WORK WILL BE ON GOING THROUGH THE REMAINDER OF THE PROJECT.

5. COMMENCE INSTALLATION OF DRAINAGE APPURTENANCES.

6. COMMENCE CONSTRUCTION OF PERVIOUS PAVER FILTER/RESERVOIR UP TO CHOKER COURSE, FOCAL POINT FILTERS AND DETENTION PONDS.

7. COMMENCE EARTHWORK AND GRADING TO SUBGRADE.

8. COMMENCE INSTALLATION OF UTILITIES.

9. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.

10. COMPLETE INSTALLATION OF UNDERGROUND UTILITIES TO WITHIN 5' OF THE BUILDINGS.

11. INSTALL LIGHT POLE FOUNDATIONS AND LIGHT POLES.

12. COMPLETE REMAINING EARTHWORK OPERATIONS.

13. COMPLETE INSTALLATION OF CATCH BASINS AND APPURTENANCES.

14. INSTALL SUB-BASE AND BASE GRAVEL WITHIN PARKING FIELDS, WALKWAYS, AND ALL DRIVEWAYS.

15. INSTALL BASE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREA AS WELL AS CONCRETE SURFACES.

16. INSTALL CURBING IN PARKING FIELDS, DRIVEWAYS, AND ALONG THE STREETS AS NEEDED.

17. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.

18. INSTALL PERVIOUS PAVERS AND INFILL STONE, SURFACE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREAS. STRIPE PER PLAN.

19. ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

20. TOUCH UP LOAM AND SEED.

NOTE: ALL DENUDED AREAS NOT SUBJECT TO FINAL PAVING, RIPRAP, OR GRAVEL SHALL BE REVEGETATED.

PRIOR TO CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE FOR THE COMPLETION OF THE WORK, WHICH WILL SATISFY THE FOLLOWING CRITERIA:

1. THE ABOVE CONSTRUCTION SEQUENCE SHOULD GENERALLY BE COMPLETED IN THE SPECIFIED ORDER; HOWEVER, SEVERAL SEPARATE ITEMS MAY BE CONSTRUCTED SIMULTANEOUSLY. WORK MUST ALSO BE SCHEDULED OR PHASED TO REDUCE THE EXTENT OF THE EXPOSED AREAS AS SPECIFIED BELOW. THE INTENT OF THIS SEQUENCE IS TO PROVIDE FOR EROSION CONTROL AND TO HAVE STRUCTURAL MEASURES SUCH AS SILT FENCE AND CONSTRUCTION ENTRANCES IN PLACE BEFORE LARGE AREAS OF LAND ARE DENUDED.

2. THE WORK SHALL BE CONDUCTED IN SECTIONS WHICH SHALL:

a) LIMIT THE AMOUNT OF EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 30 DAYS.

b) REVEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT; OR TEMPORARILY STABILIZED WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL FOR AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND AND 7 DAYS FOR ALL OTHER AREAS. AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW.

c) INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEM AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE. THE DITCHES SHALL BE IMMEDIATELY LINED OR REVEGETATED AS SOON AS THEIR INSTALLATION IS COMPLETE.

1.5 EROSION, SEDIMENTATION AND STABILIZATION CONTROL PLAN

THE EROSION CONTROL PLAN IS INCLUDED IN THE PLAN SET.

1.6 DETAILS AND SPECIFICATIONS

THE EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

1.7 WINTER STABILIZATION PLAN

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT; VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT ANY AREA LEFT EXPOSED CAN BE CONTROLLED BY THE CONTRACTOR. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY/PARKING AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR SHALL INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE SHALL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOODWASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

AN AREA SHALL BE CONSIDERED DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%.

MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAT 8%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 1, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT SHALL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

INSTALL A STONE LINING IN THE DITCH --THE APPLICANT SHALL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT SHALL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

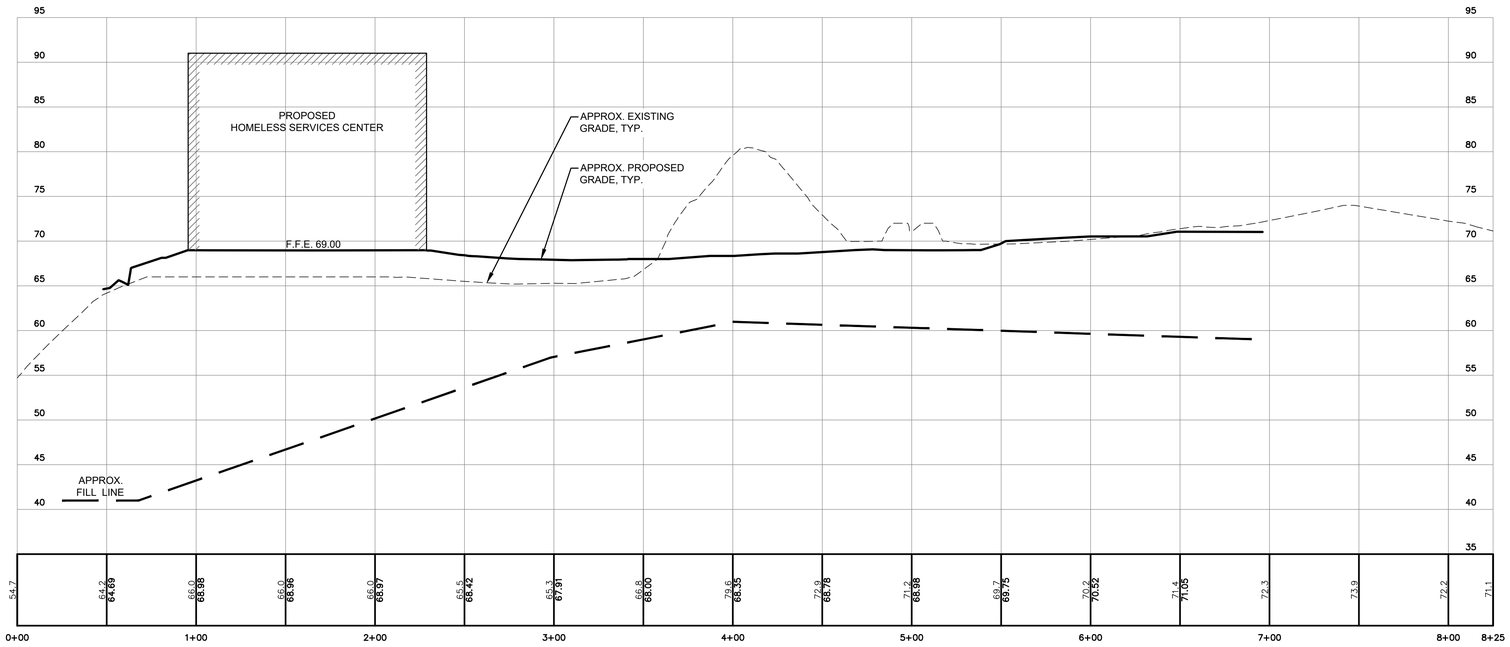
2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT SHALL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. THE DEPARTMENT SHALL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 1, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY SEPTEMBER 1 THE APPLICANT SHALL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT SHALL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT SHALL COVER THE SLOPE WITH A LAYER OF WOODWASTE COMPOST AS DESCRIBED IN ITEM III OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS STANDARD.

STABILIZE THE SLOPE WITH SOD -- THE APPLICANT SHALL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY SEPTEMBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

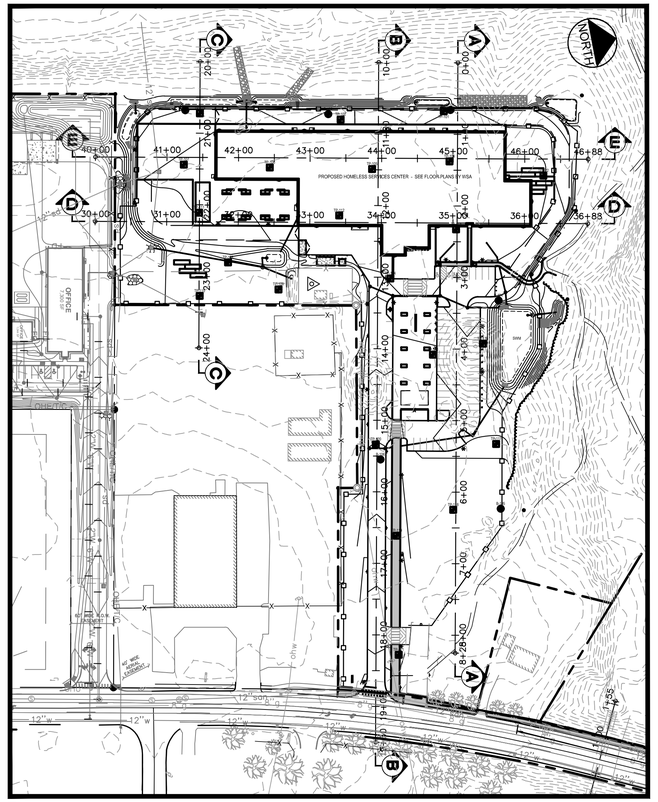
STABILIZE THE SLOPE WITH WOODWASTE COMPOST -- THE APPLICANT SHALL PLACE A SIX-INCH LAYER OF WOODWASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOODWASTE COMPOST, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT SHALL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT SHALL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSION



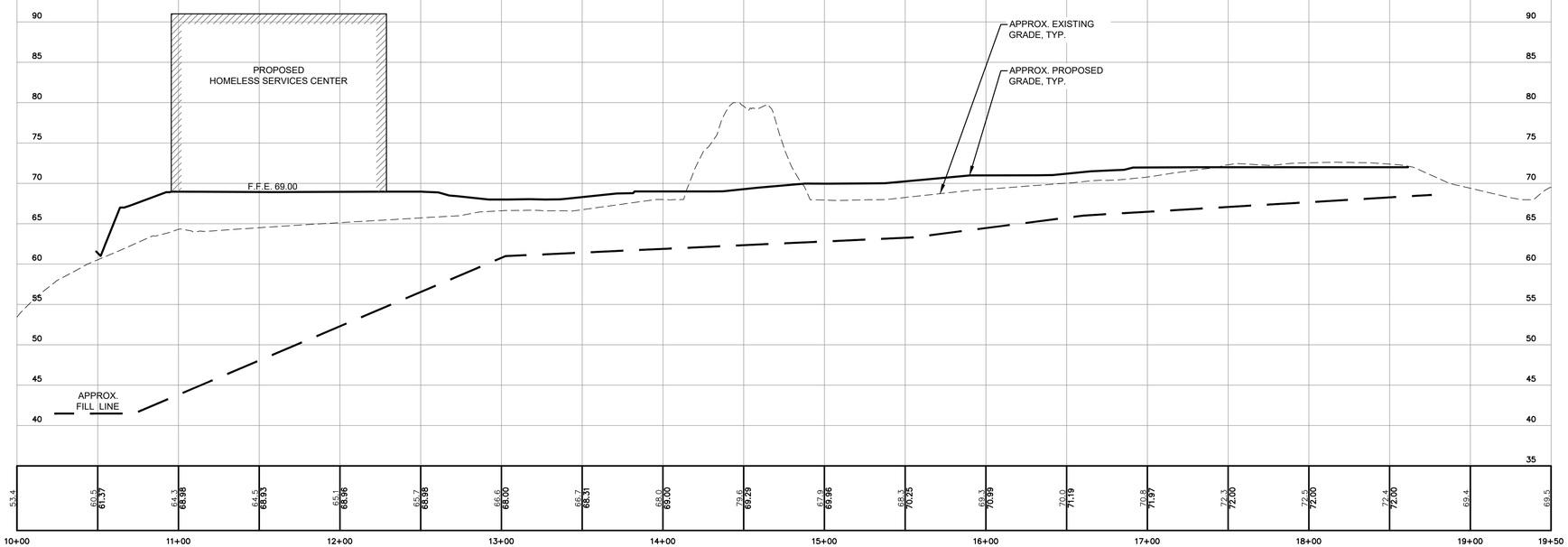
SITE CROSS SECTION A-A

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



ORIENTATION PLAN

SCALE: 1" = 100'



SITE CROSS SECTION B-B

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE CROSS SECTIONS.dwg		

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Drawing Name: SITE CROSS SECTIONS - SHEET 1 OF 2

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-9.1

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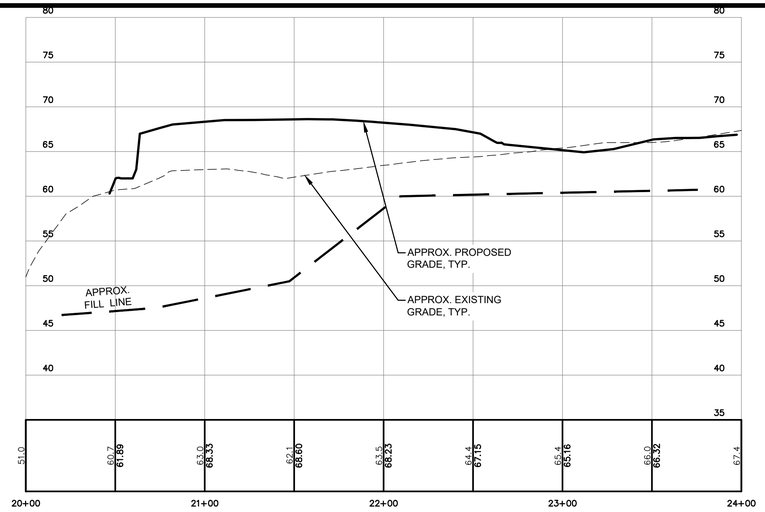
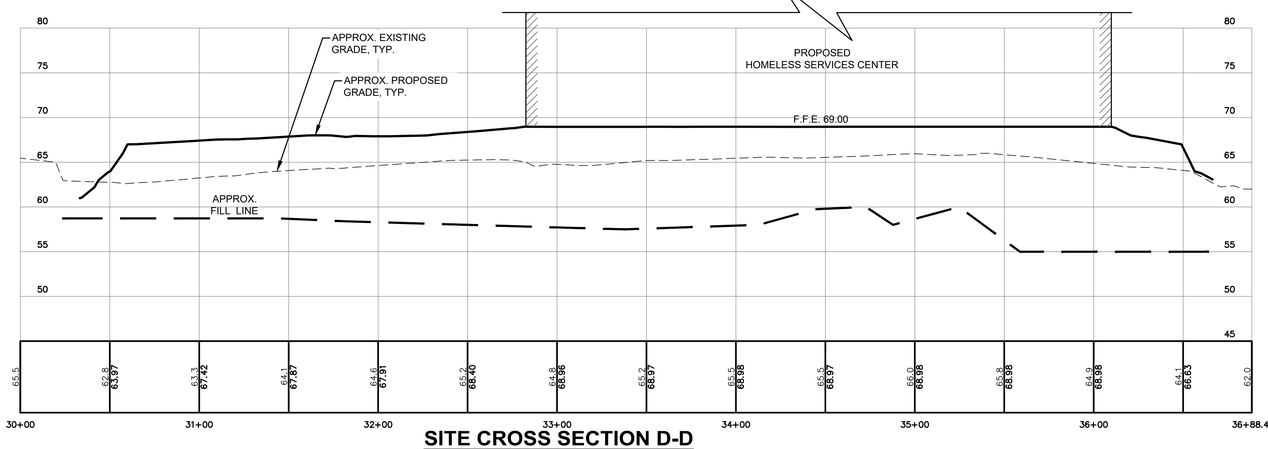


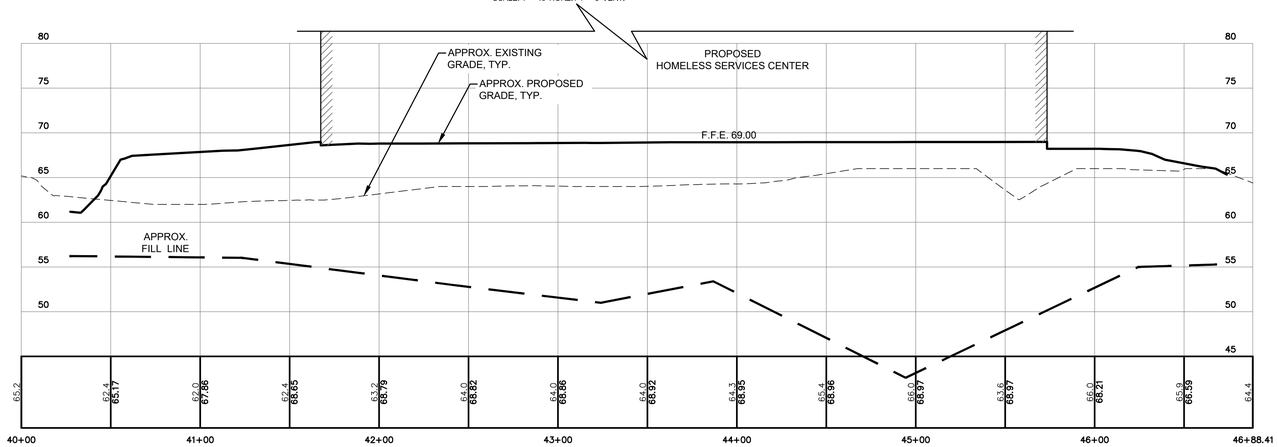
SITE CROSS SECTION C-C

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



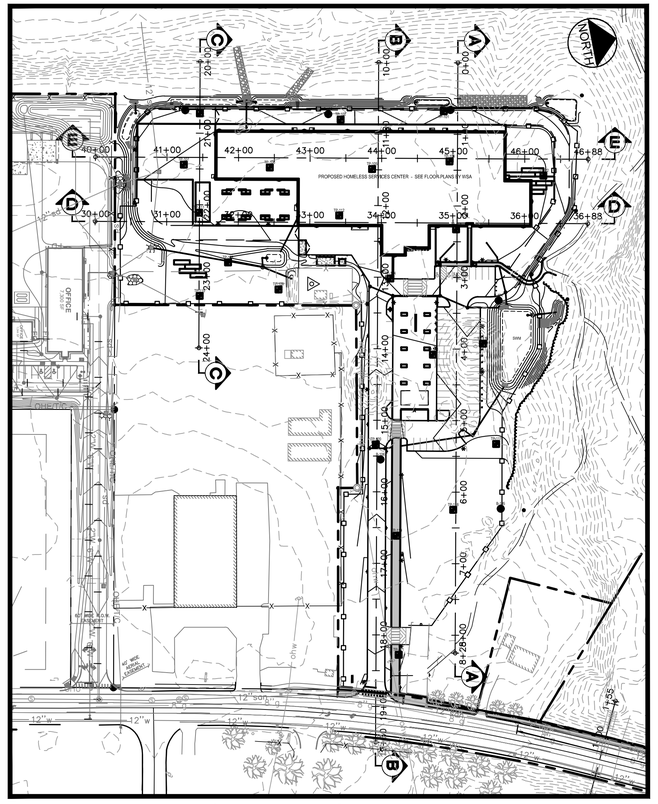
SITE CROSS SECTION D-D

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



SITE CROSS SECTION E-E

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



ORIENTATION PLAN

SCALE: 1" = 100'

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE CROSS SECTIONS.dwg		

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Drawing Name: SITE CROSS SECTIONS - SHEET 2 OF 2

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-9.2

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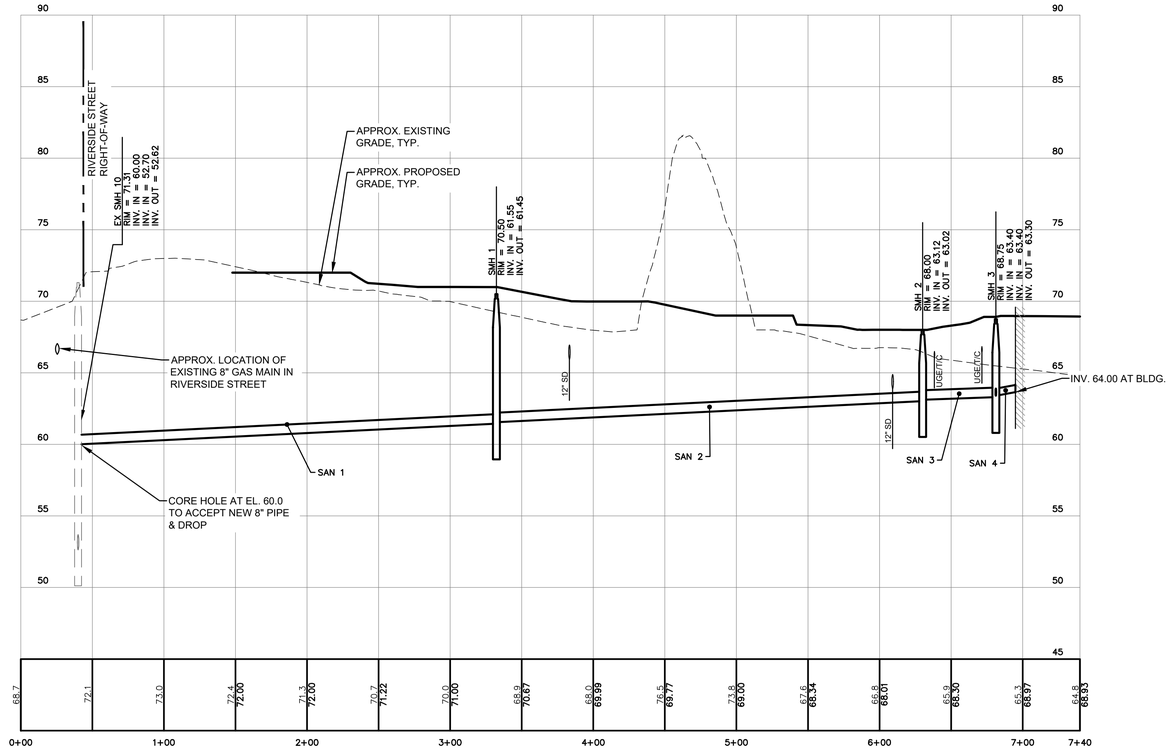

SANITARY SEWER PROFILE

SCALE: 1" = 50' HORZ. / 1" = 5' VERT.

SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)
EX SMH 10	4'ø	71.31	60.00/8"(SMH 1) 52.70/12"(EX SMH 11)	52.62/12"(EX SMH 9)
SMH 1	4'ø	70.50	61.55/8"(SMH 2)	61.45/8"(EX SMH 10)
SMH 2	4'ø	68.00	63.12/8"(SMH 3)	63.02/8"(SMH 1)
SMH 3	4'ø	68.75	63.40/6"(BLDG SEWER) 63.40/6"(GREASE TANK)	63.30/8"(SMH 2)

PIPE TABLE

Pipe Name	Size	Length	Slope
SAN 1	8"	292'	0.50%
SAN 2	8"	298'	0.49%
SAN 3	8"	51'	0.35%
SAN 4	6"	14'	1.82%
SAN 5	6"	6'	1.70%

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

NORTH

50 0 25 50 100

1 inch = 50 ft.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Design: SRB | Draft: CDD | Date: JUNE 2021
Checked: SRB | Scale: AS NOTED | Job No.: 3824.01
File Name: 382401-UTIL.dwg

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Drawing Name: UTILITY PROFILES

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-11.0

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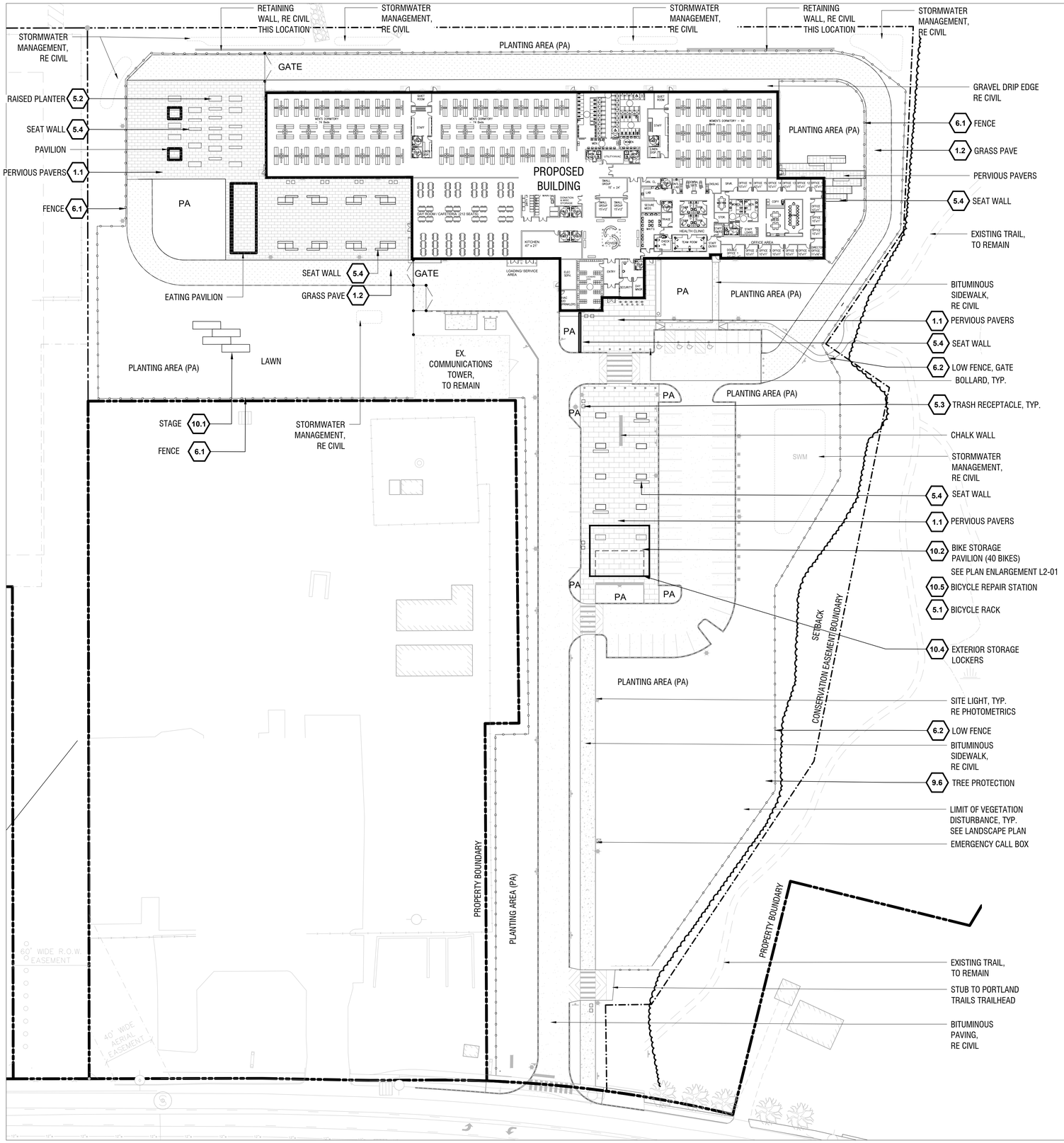


MATERIALS LEGEND

SYMBOL	
	HARDSCAPE; CONCRETE PAVERS A (SF TBD)
	HARDSCAPE; CONCRETE PAVERS B (SF TBD)
	BITUMINOUS PAVING (SF TBD)
	BITUMINOUS SIDEWALK (SF TBD)
	PERVIOUS PAVING (SF TBD)

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

OWNER:
DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

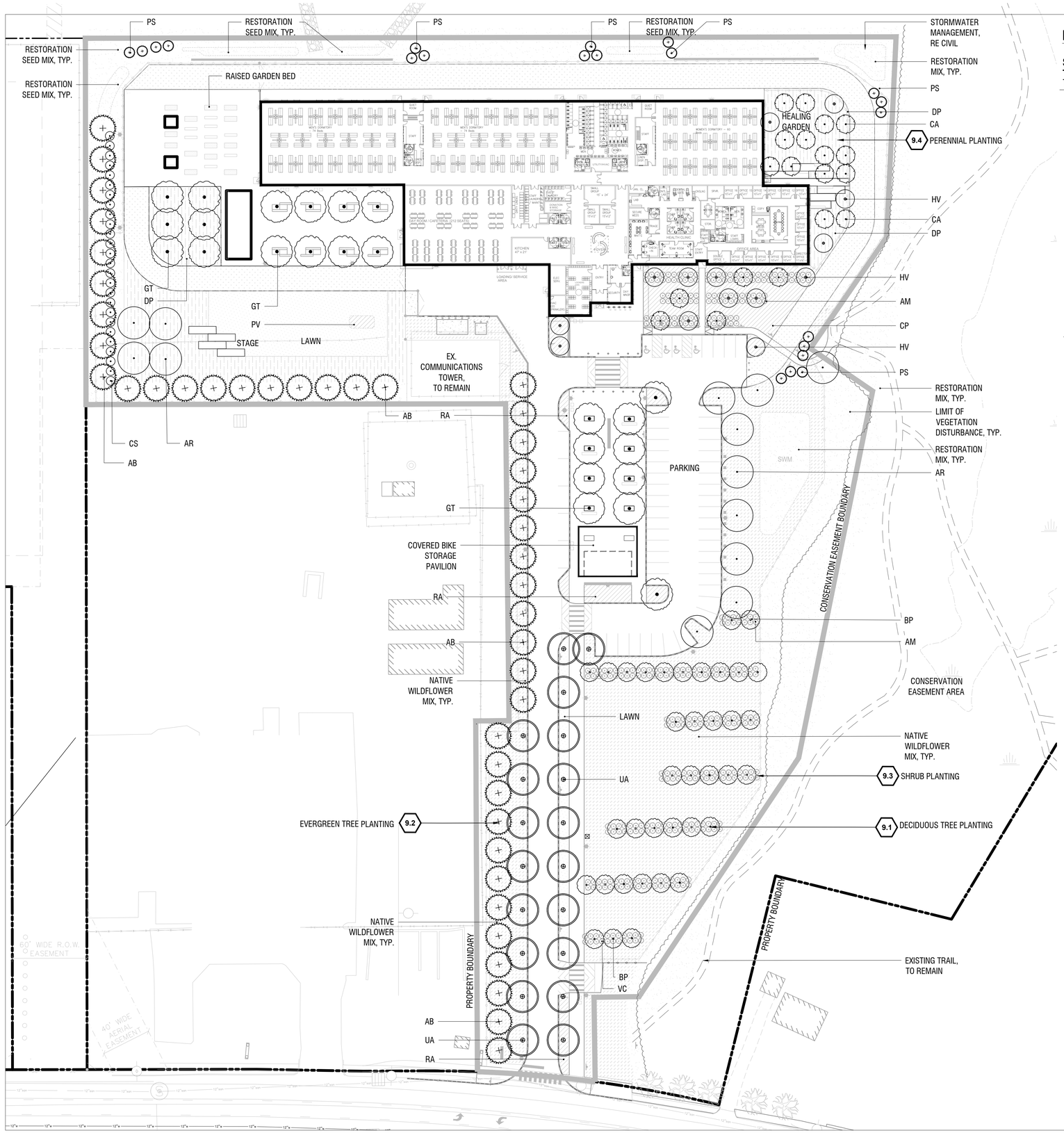
SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AR	ACER RUBRUM	RED MAPLE	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
	UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" MIN	PER PLAN
	PS	PINUS SEMBRA 'CHALET'	CHALET SWISS STONE PINE	TBD	3'-5' HEIGHT	PER PLAN
SHRUBS						
	CS	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
	AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	LOW BLACK CHOKEBERRY	TBD	TBD	PER PLAN
	RA	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	TBD	TBD	PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CP	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN
	MS	MISCANTHUS SINESIS	SILVER GRASS	TBD	TBD	PER PLAN
	PV	PANICUM VIRGATUM	SWITCHGRASS	TBD	TBD	PER PLAN
	PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX "
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

0 20 40 80

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

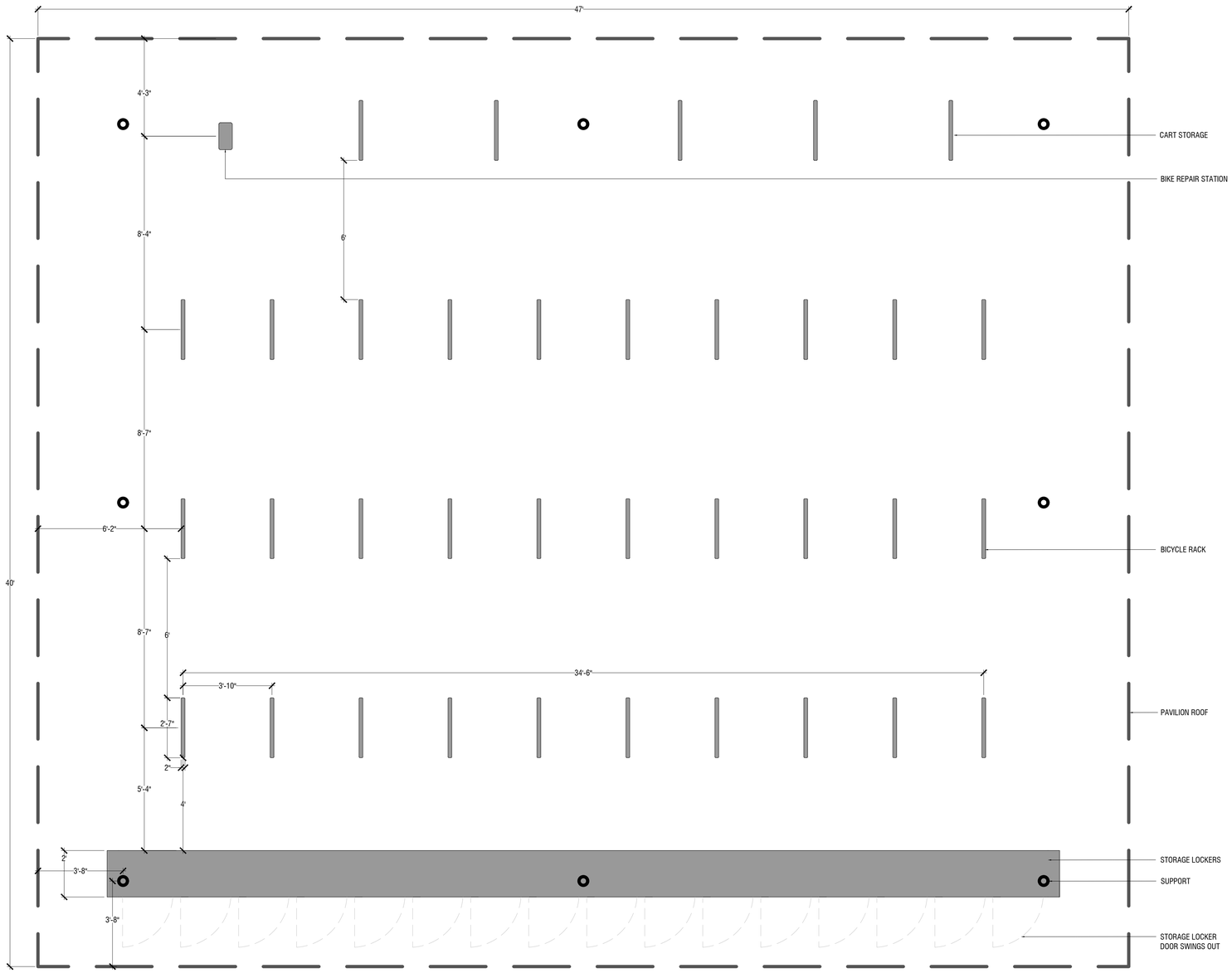
SHEET TITLE

LANDSCAPE PLAN

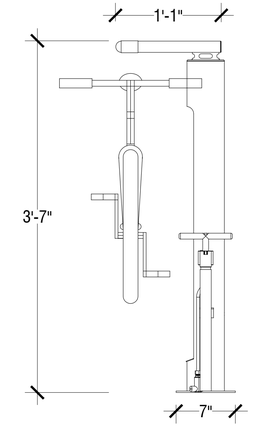
SHEET INFORMATION

L 2-00

NOT FOR CONSTRUCTION



1 BIKE PAVILION PLAN ENLARGEMENT 10.3
NTS



2 BIKE REPAIR STATION 10.5
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
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	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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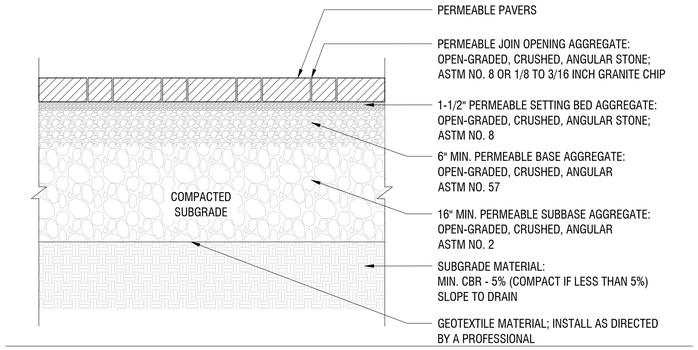
LANDSCAPE
DETAILS

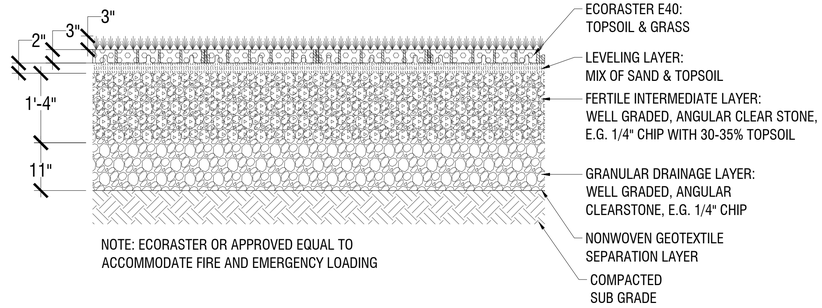
SHEET INFORMATION

L 2-01

NOT FOR CONSTRUCTION

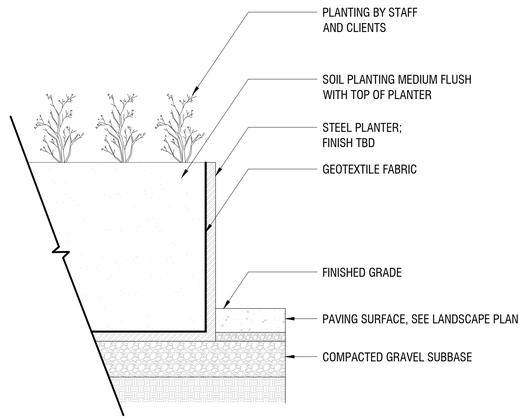


1 CONCRETE PAVERS - PERVIOUS
NTS

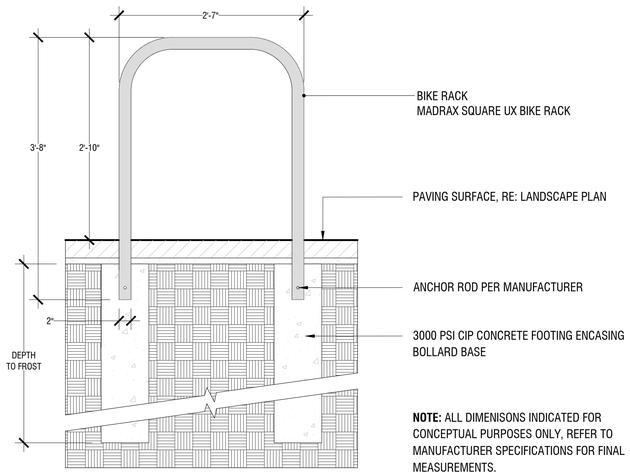


NOTE: ECORASTER OR APPROVED EQUAL TO
ACCOMMODATE FIRE AND EMERGENCY LOADING

2 GRASS PAVE
3/4"=1'-0"

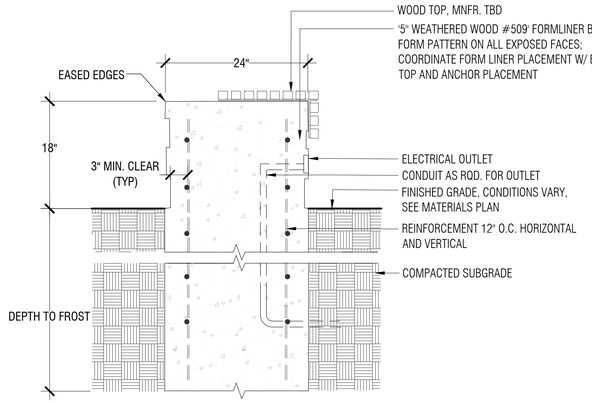


3 RAISED PLANTER
1":1'-0"

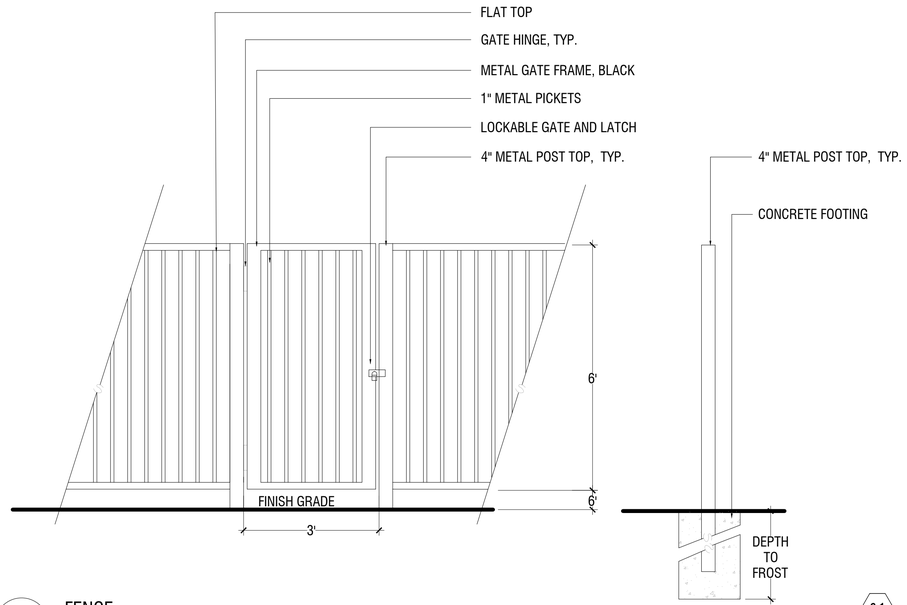


NOTE: ALL DIMENISONS INDICATED FOR CONCEPTUAL PURPOSES ONLY, REFER TO MANUFACTURER SPECIFICATIONS FOR FINAL MEASUREMENTS.

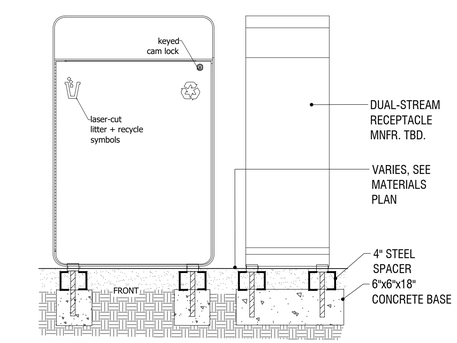
4 BICYCLE RACK
1":1'-0"



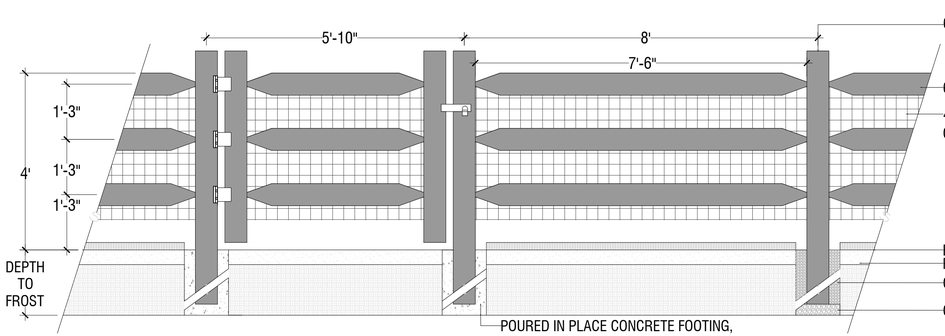
5 SEAT WALL
1":1'-0"



6 FENCE
NTS



7 TRASH RECEPTACLE
NTS



8 LOW FENCE
NTS

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00	
1.2	GRASS PAVE	2/L3-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
4.0	SITE WALLS/ EMBANKMENTS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
5.0	SITE FURNITURE		
5.1	BICYCLE RACK	4/L3-00	
5.2	RAISED PLANTER	3/L3-00	
5.3	TRASH RECEPTACLE	7/L3-00	
5.4	SEAT WALL	5/L3-00	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	FENCE	6/L3-00	
6.2	LOW FENCE	8/L3-00	
7.0	SITE LIGHTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L3-01	
9.2	EVERGREEN TREE PLANTING	2/L3-01	
9.3	SHRUB PLANTING	3/L3-01	
9.4	PERENNIAL PLANTING	4/L3-01	
9.5	STEEL EDGING	5/L3-01	
9.6	TREE PROTECTION	6/L3-01	
10.0	MISCELLANEOUS ELEMENTS		
10.1	STAGE	1/L3-02	
10.2	BIKE PAVILION	2/L3-02	
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03	
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02	
10.5	BIKE REPAIR STATION	2/L3-03	

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SEAL

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MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

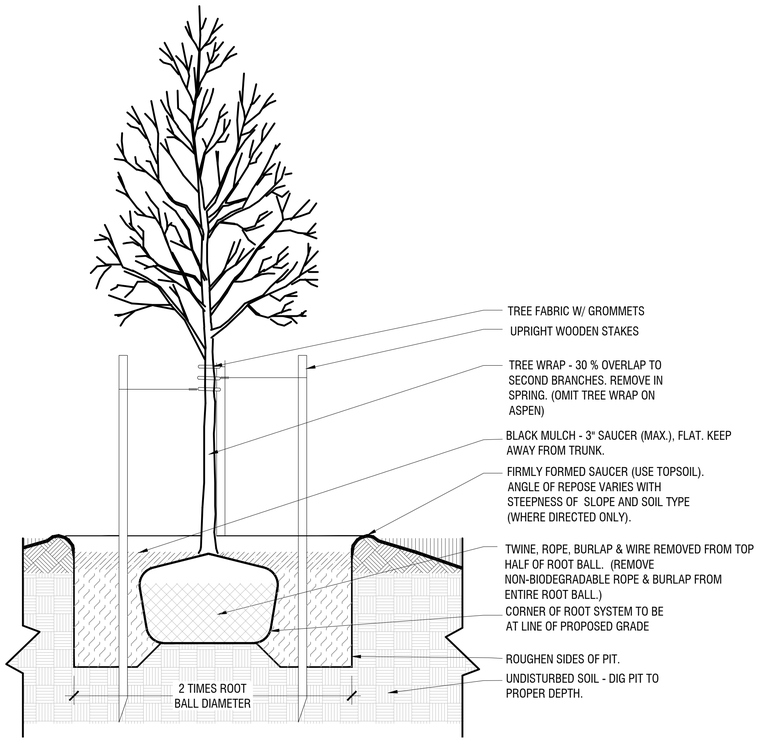
SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

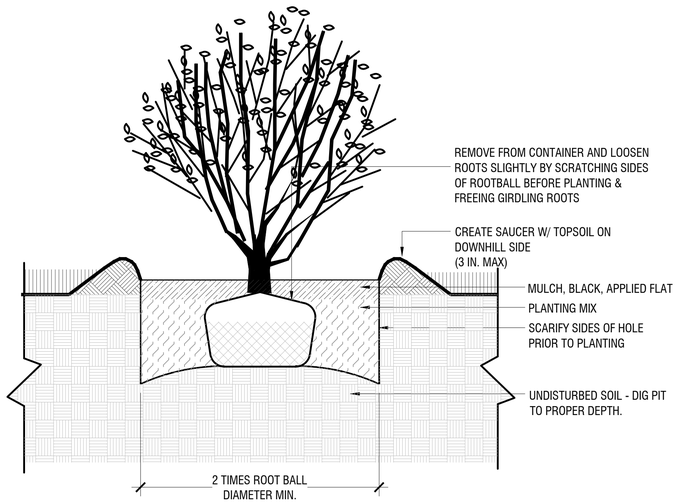
L 3-00

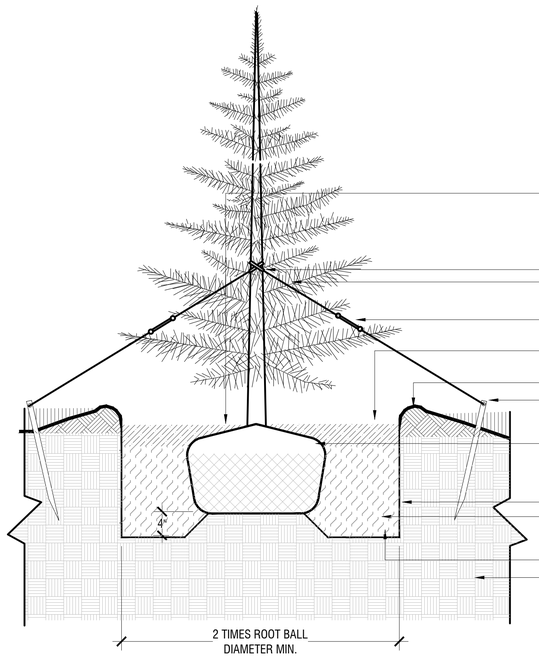
NOT FOR CONSTRUCTION



1 DECIDUOUS TREE PLANTING 9.1

1":1'-0"

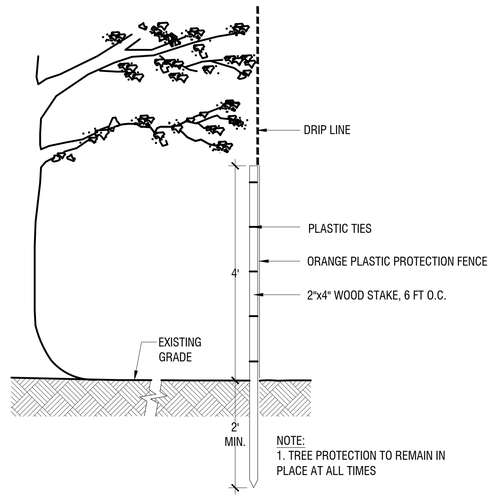




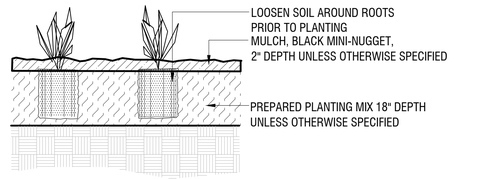
NOTES:
EVERGREEN PLANT MATERIAL SHOULD BE TREATED WITH "AGRI-GEL" (OR EQUIVALENT APPROVED BY LANDSCAPE ARCHITECT). DIP TREE ROOTS BEFORE PLANTING.

2 EVERGREEN TREE PLANTING 9.2

1":1'-0"

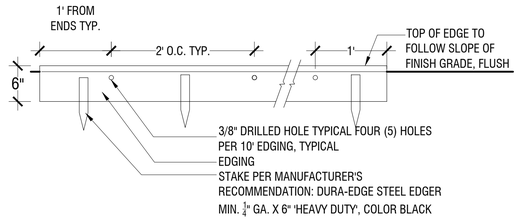


NOTE:
1. TREE PROTECTION TO REMAIN IN PLACE AT ALL TIMES



3 PERENNIAL & GROUND COVER PLANTING 9.4

1":1'-0"



4 STEEL LANDSCAPE BED EDGING 9.5

1":1'-0"

5 SHRUB PLANTING 9.3

1":1'-0"

6 TREE PROTECTION 9.6

N.T.S.

NOTES:
1. ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
2. TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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ISSUE DATE

AUGUST 31, 2021

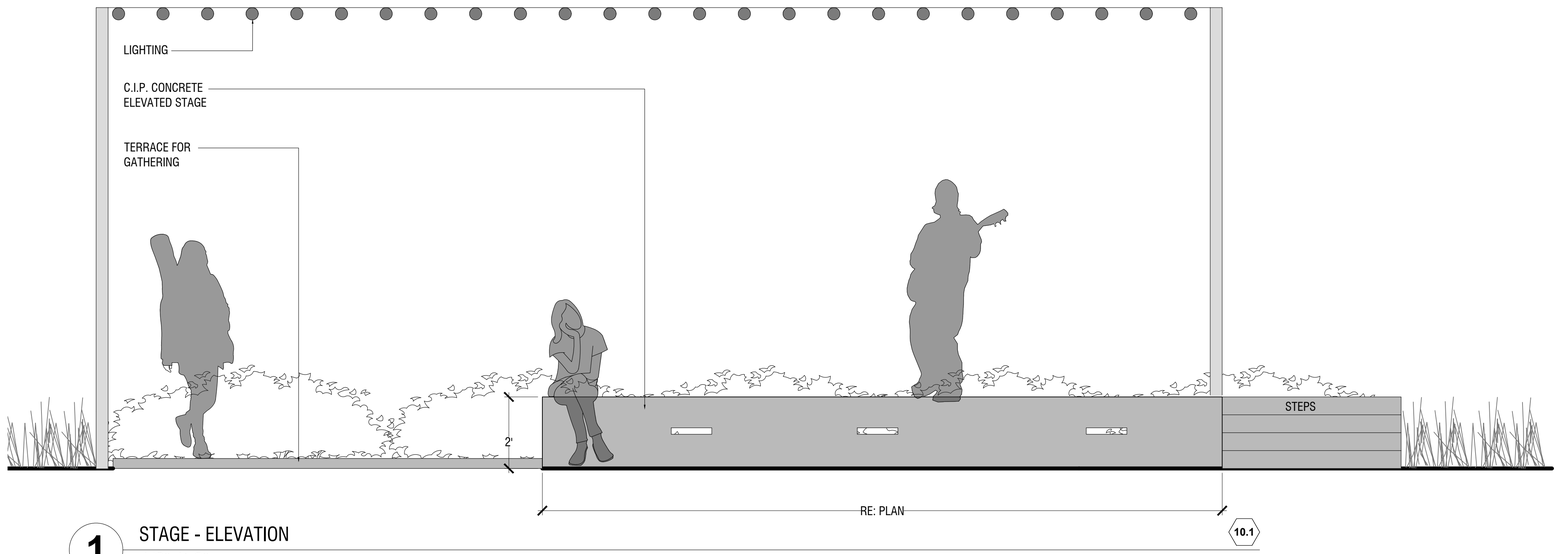
SHEET TITLE

LANDSCAPE DETAILS

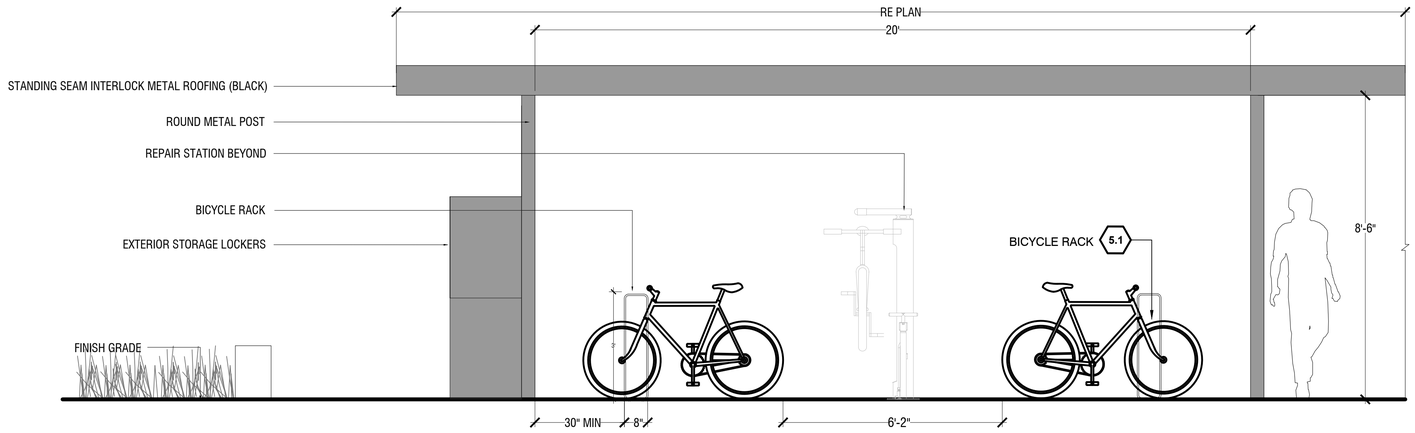
SHEET INFORMATION

L 3-01

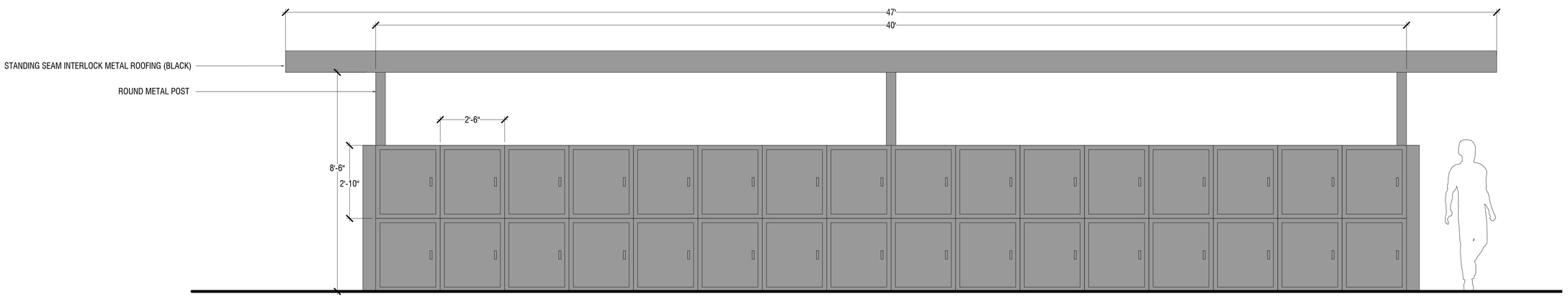
NOT FOR CONSTRUCTION



1 STAGE - ELEVATION
1/2":1'-0"



2 BIKE PAVILION
1/2":1'-0"
10.2



3 EXTERIOR STORAGE LOCKERS
1/2":1'-0"
10.4

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
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	X.X	NOT USED AT THIS TIME	X/XX-XX
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	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
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	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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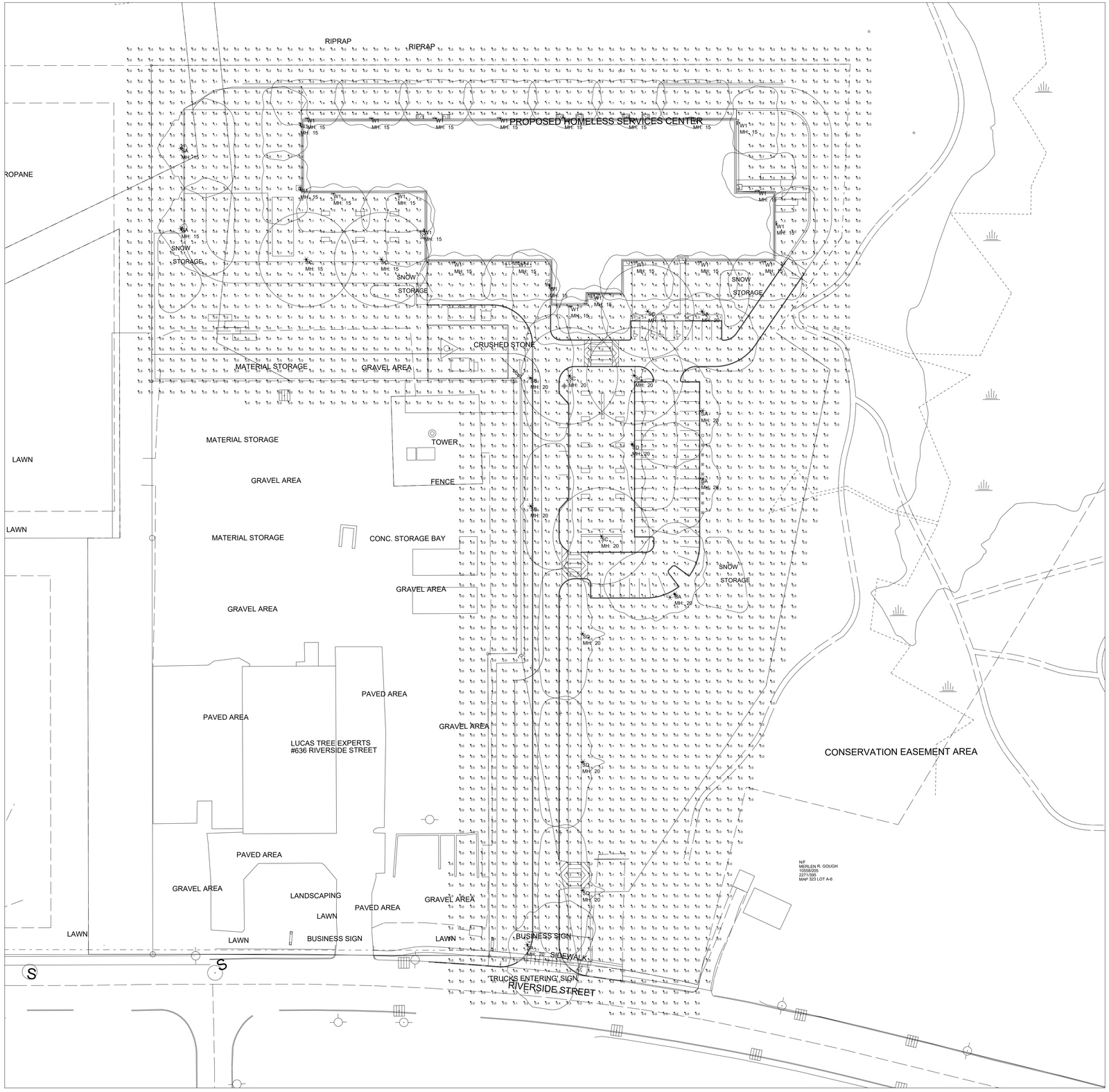
SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-02

NOT FOR CONSTRUCTION



PLAN VIEW

NOTES:
1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

Calculation Summary

Label	Avg	Max	Min	Avg/Min	Max/Min
SITE	0.42	3.3	0.0	N.A.	N.A.

Luminaire Schedule (note fixture cataloge numbers are not complete)

Type	Qty	Lumens	LLF	Lum. Watts	Description
SA	7	6696	0.900	65	VPS-36L-65-3K7-4W
SB	2	5637	0.900	83	VP-S-36L-80-3K7-3-BC
SC	6	5908	0.900	58	VP-S-24L-55-3K7-5W
SD	4	5492	0.900	54	VP-S-24L-55-3K7-3
W1	23	2588	0.900	28.6	LNC2-12L-3K-070-4

SITE 8-11-21.AGI

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com

TITLE
654 RIVERSIDE ST - SHELTER
PORTLAND, ME
SITE LIGHTING LAYOUT

GENERATED FOR:
GORRILL PALMER

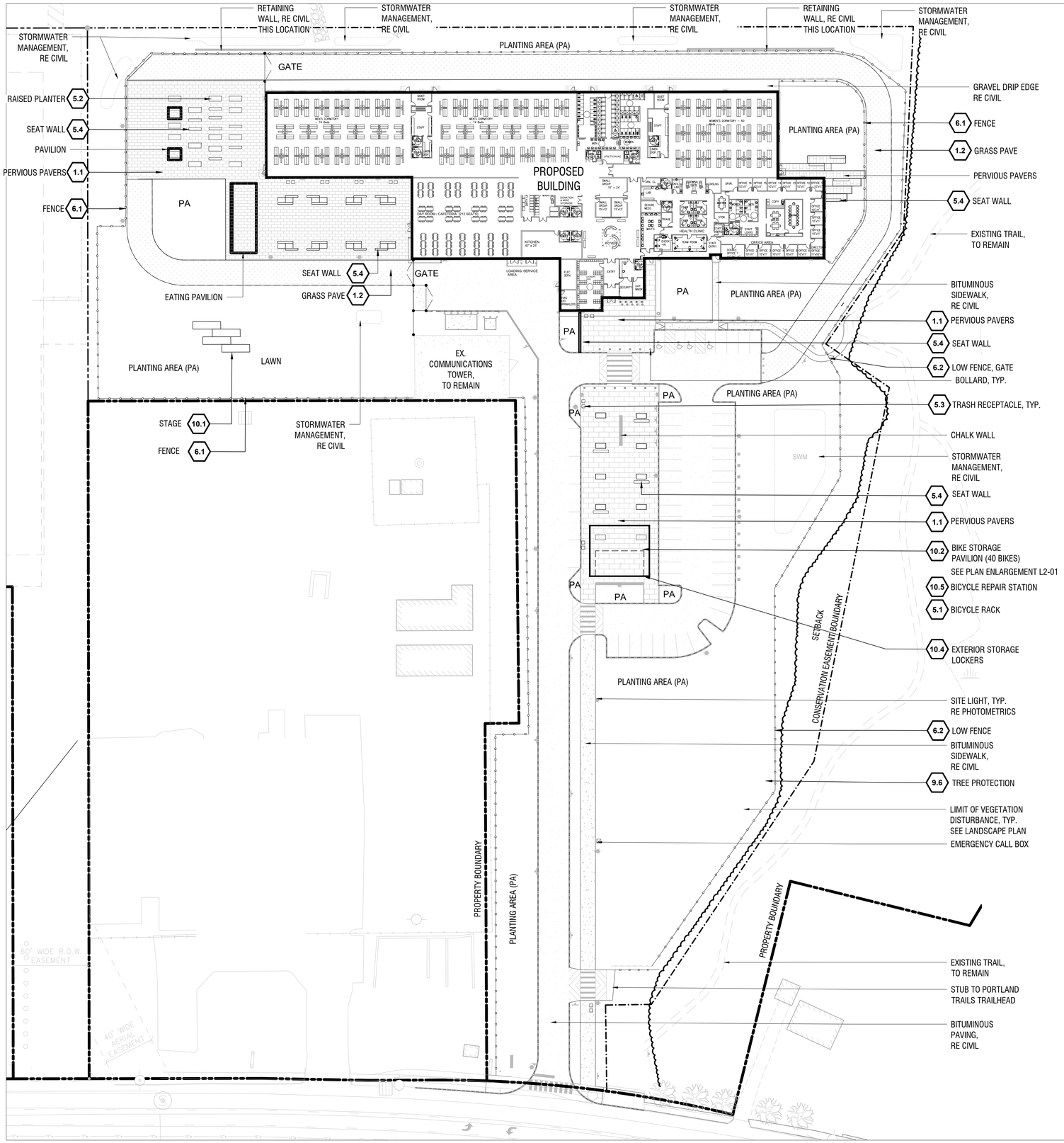
SCALE NOT TO SCALE

Page 1 of 1

Date:8/10/2021

SWANEY LIGHTING ASSOCIATES, INC.

NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. ITS ACCEPTANCE CONSTITUTES AN AGREEMENT THAT THE DRAWING WILL BE TREATED AS CONFIDENTIAL. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED INFORMATION CONCERNING THE OPERATION OF UNITS INDICATED. THIS DRAWING IS TO BE RETURNED UPON REQUEST AND IS NOT TO BE COMMUNICATED, DISCLOSED OR COPIED, EXCEPT AS EXPRESSLY AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.
NOTICE: THE INTENT OF THIS LIGHTING LAYOUT IS TO SUGGEST THE BEST UTILIZATION OF LIGHTING FIXTURES INCLUDED IN THIS DRAWING. IT IS PROVIDED USING FIXTURE PHOTOMETRICS FURNISHED BY THE MANUFACTURER. ANY VARIATION IN FIXTURE PERFORMANCE FROM PERFORMANCE SHOWN IN IES FILE IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IT'S USE FOR ANY OTHER PURPOSE IS NOT AUTHROIZED BY SWANEY LIGHTING ASSOCIATES.



MATERIALS LEGEND

SYMBOL	
	HARDSCAPE; CONCRETE PAVERS A (SF TBD)
	HARDSCAPE; CONCRETE PAVERS B (SF TBD)
	BITUMINOUS PAVING (SF TBD)
	BITUMINOUS SIDEWALK (SF TBD)
	PERVIOUS PAVING (SF TBD)

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

OWNER:
DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

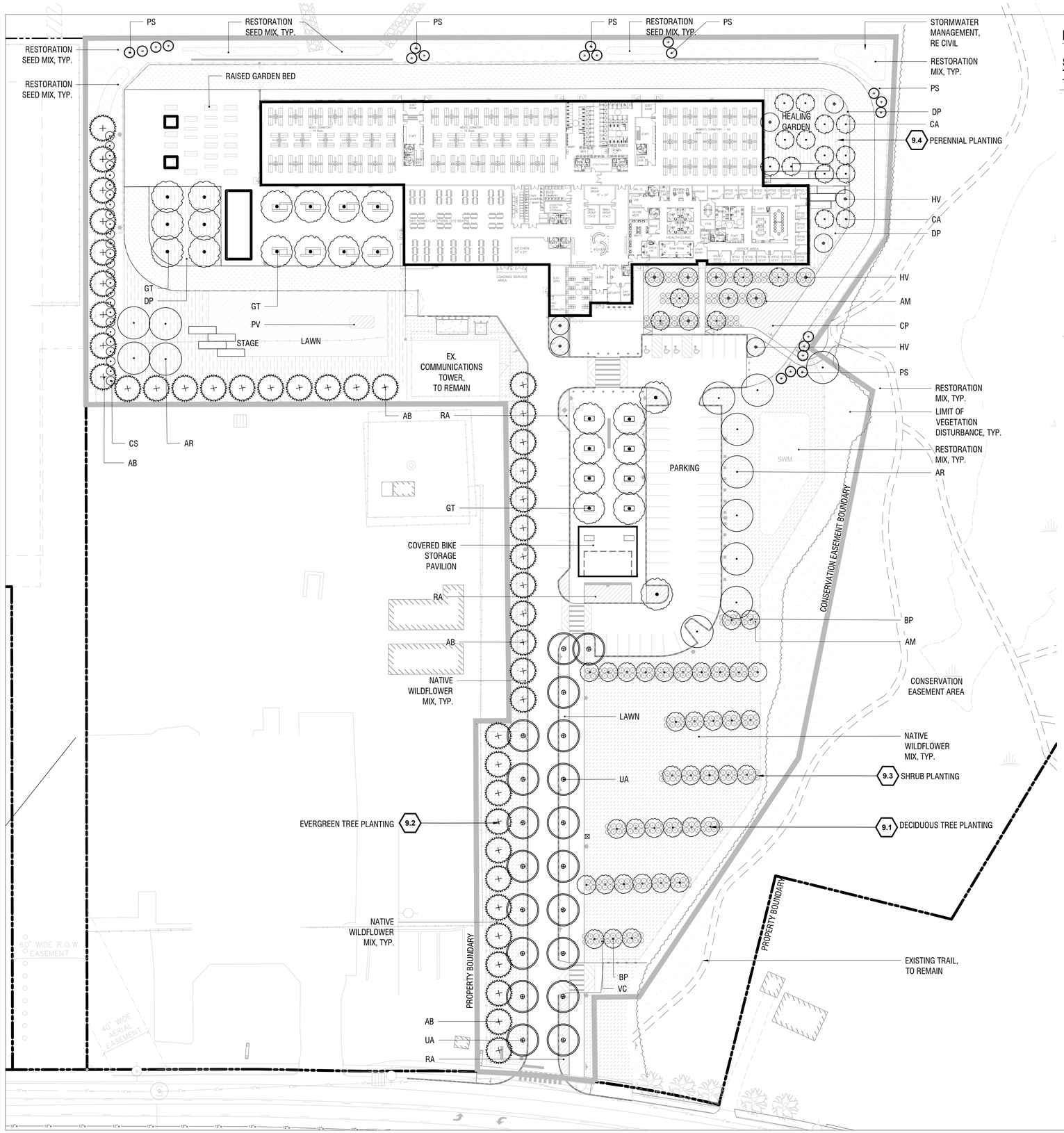
SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AR	ACER RUBRUM	RED MAPLE	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
	UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" MIN	PER PLAN
	PS	PINUS SEMBRA 'CHALET'	CHALET SWISS STONE PINE	TBD	3'-5' HEIGHT	PER PLAN
SHRUBS						
	CS	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
	AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	LOW BLACK CHOKEBERRY	TBD	TBD	PER PLAN
	RA	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	TBD	TBD	PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CP	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN
	MS	MISCANTHUS SINESIS	SILVER GRASS	TBD	TBD	PER PLAN
	PV	PANICUM VIRGATUM	SWITCHGRASS	TBD	TBD	PER PLAN
	PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX "
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

0 20 40 80

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ISSUE DATE

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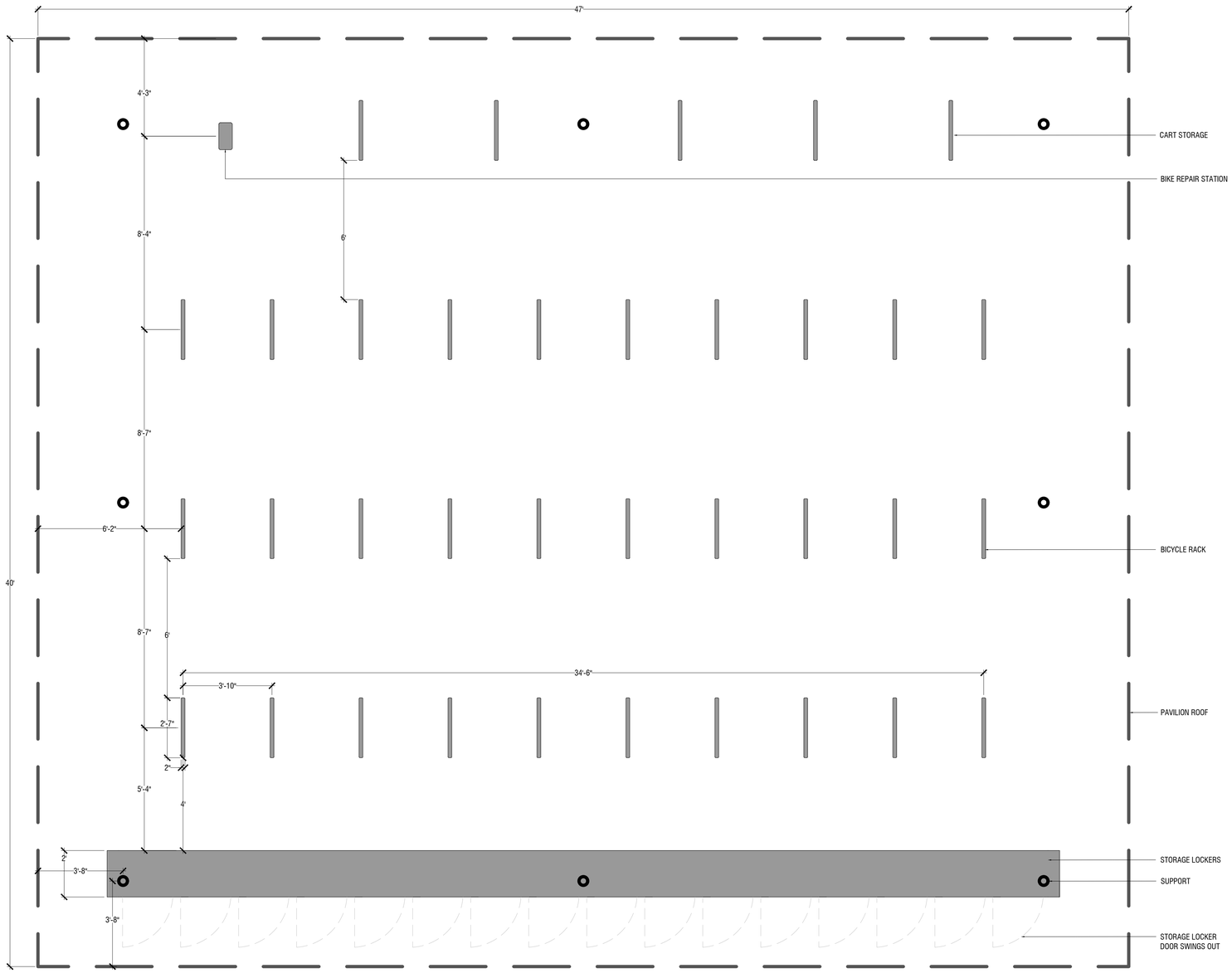
SHEET TITLE

LANDSCAPE PLAN

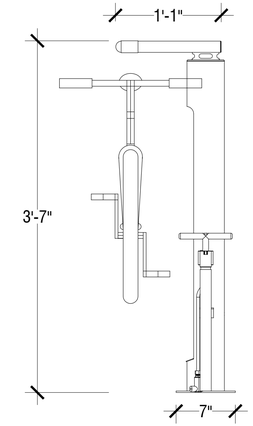
SHEET INFORMATION

L 2-00

NOT FOR CONSTRUCTION



1 BIKE PAVILION PLAN ENLARGEMENT 10.3
NTS



2 BIKE REPAIR STATION 10.5
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
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	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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ISSUE DATE

AUGUST 31, 2021

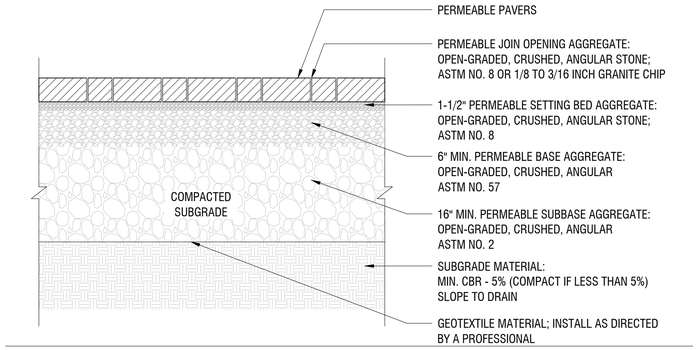
SHEET TITLE

LANDSCAPE
DETAILS

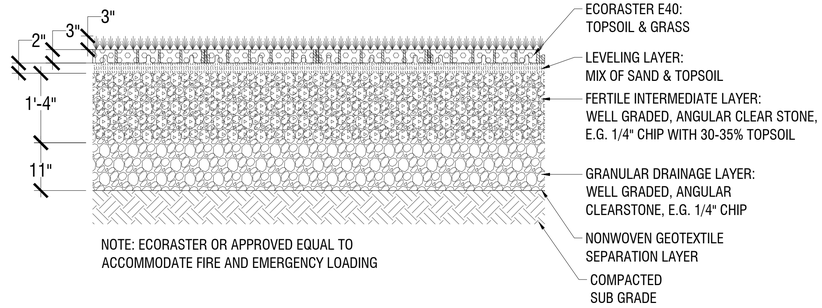
SHEET INFORMATION

L 2-01

NOT FOR CONSTRUCTION

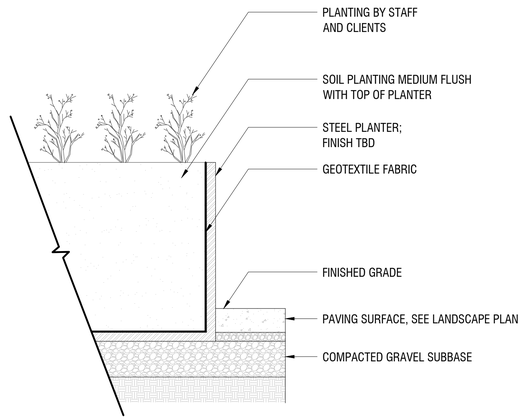


1 CONCRETE PAVERS - PERVIOUS
NTS

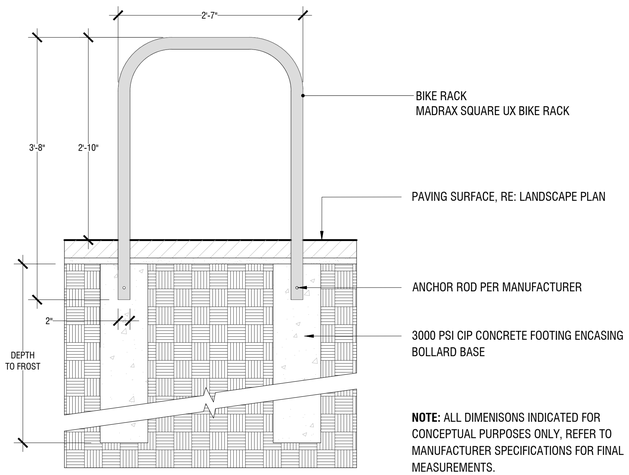


NOTE: ECORASTER OR APPROVED EQUAL TO
ACCOMMODATE FIRE AND EMERGENCY LOADING

2 GRASS PAVE
3/4"=1'-0"

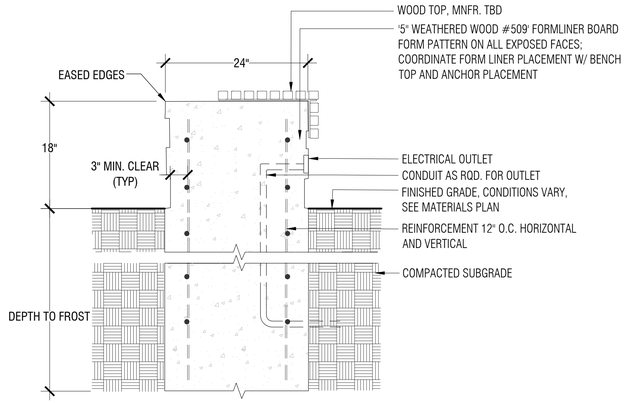


3 RAISED PLANTER
1":1'-0"

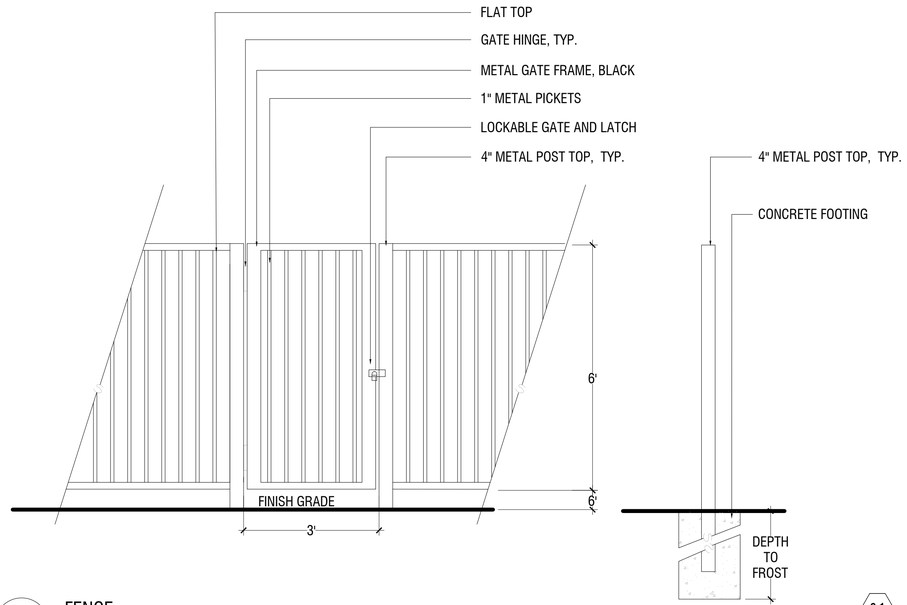


NOTE: ALL DIMENISONS INDICATED FOR CONCEPTUAL PURPOSES ONLY, REFER TO MANUFACTURER SPECIFICATIONS FOR FINAL MEASUREMENTS.

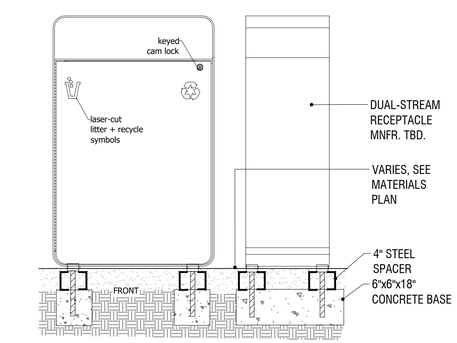
4 BICYCLE RACK
1":1'-0"



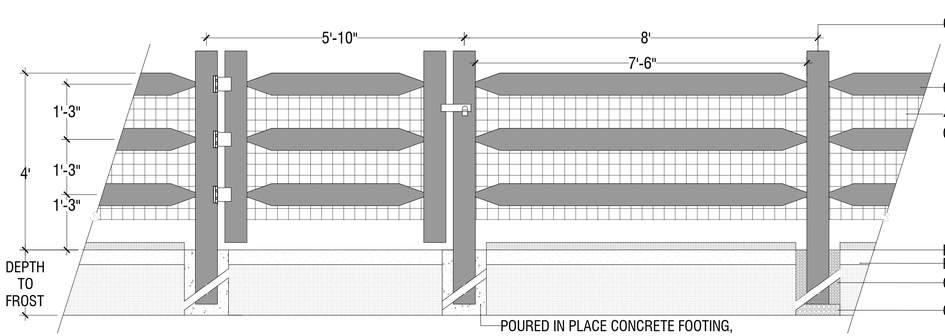
5 SEAT WALL
1":1'-0"



6 FENCE
NTS



7 TRASH RECEPTACLE
NTS



8 LOW FENCE
NTS

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00	
1.2	GRASS PAVE	2/L3-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
4.0	SITE WALLS/ EMBANKMENTS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
5.0	SITE FURNITURE		
5.1	BICYCLE RACK	4/L3-00	
5.2	RAISED PLANTER	3/L3-00	
5.3	TRASH RECEPTACLE	7/L3-00	
5.4	SEAT WALL	5/L3-00	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	FENCE	6/L3-00	
6.2	LOW FENCE	8/L3-00	
7.0	SITE LIGHTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L3-01	
9.2	EVERGREEN TREE PLANTING	2/L3-01	
9.3	SHRUB PLANTING	3/L3-01	
9.4	PERENNIAL PLANTING	4/L3-01	
9.5	STEEL EDGING	5/L3-01	
9.6	TREE PROTECTION	6/L3-01	
10.0	MISCELLANEOUS ELEMENTS		
10.1	STAGE	1/L3-02	
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AUGUST 31, 2021

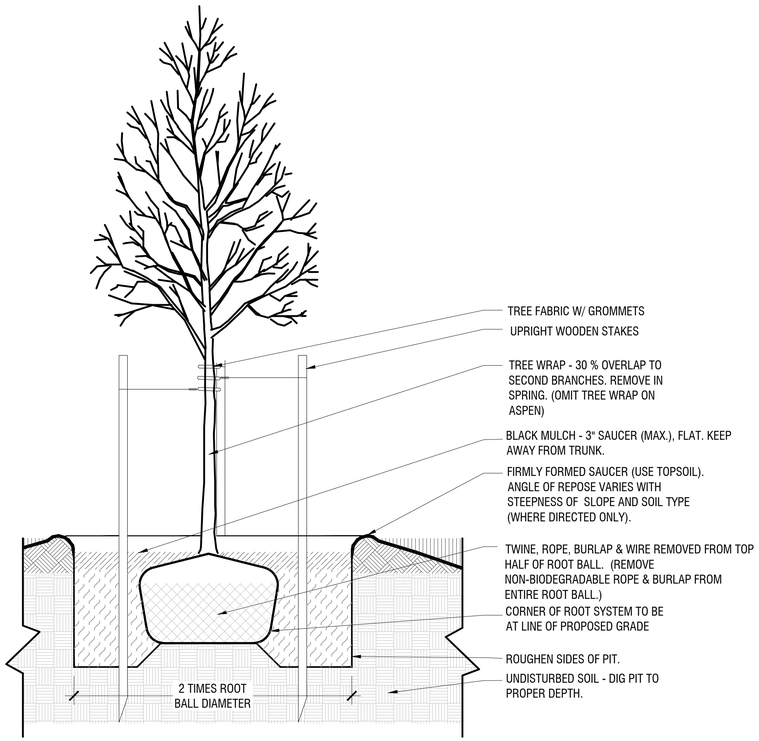
SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

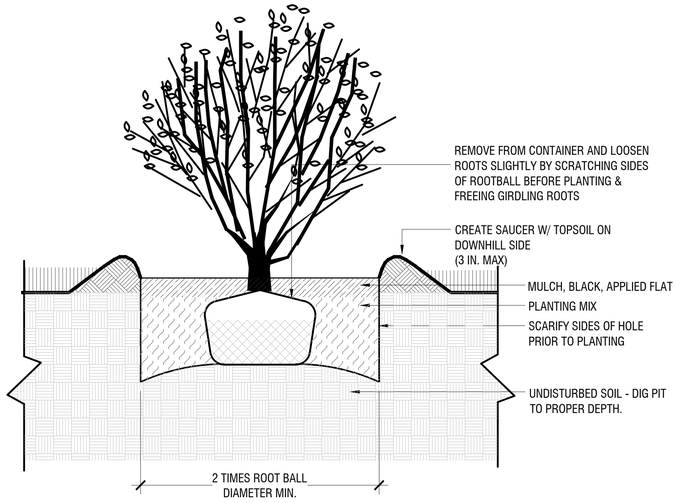
L 3-00

NOT FOR CONSTRUCTION



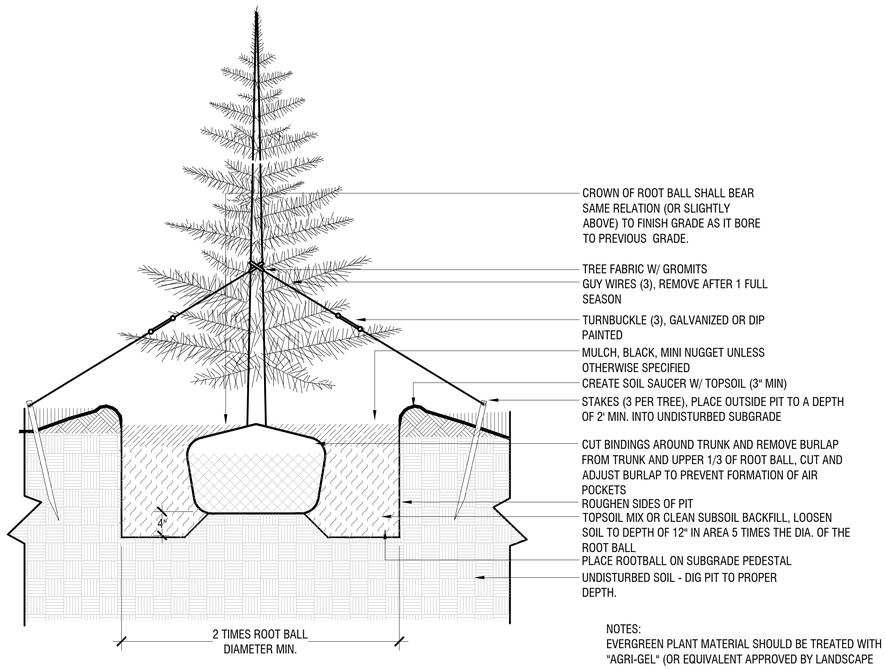
1 DECIDUOUS TREE PLANTING 9.1

1":1'-0"

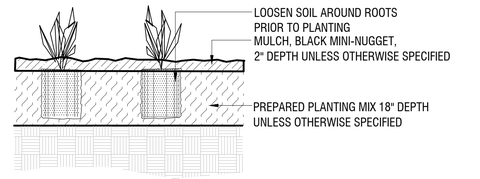


2 EVERGREEN TREE PLANTING 9.2

1":1'-0"

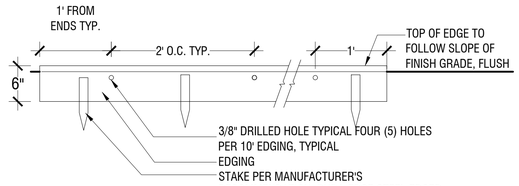


NOTES:
EVERGREEN PLANT MATERIAL SHOULD BE TREATED WITH "AGRI-GEL" (OR EQUIVALENT APPROVED BY LANDSCAPE ARCHITECT). DIP TREE ROOTS BEFORE PLANTING.



3 PERENNIAL & GROUND COVER PLANTING 9.4

1":1'-0"

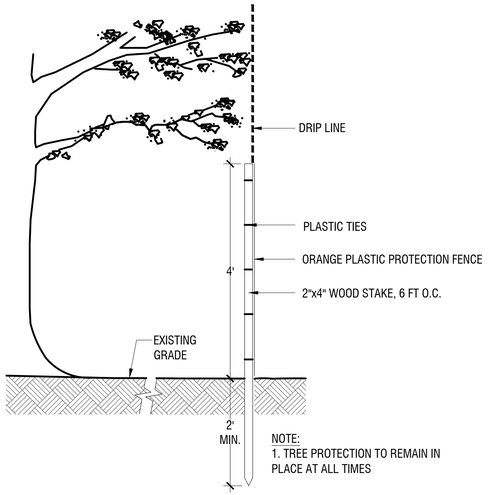


4 STEEL LANDSCAPE BED EDGING 9.5

1":1'-0"

5 SHRUB PLANTING 9.3

1":1'-0"



NOTE:
1. TREE PROTECTION TO REMAIN IN PLACE AT ALL TIMES

6 TREE PROTECTION 9.6

N.T.S.

NOTES:
1. ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
2. TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

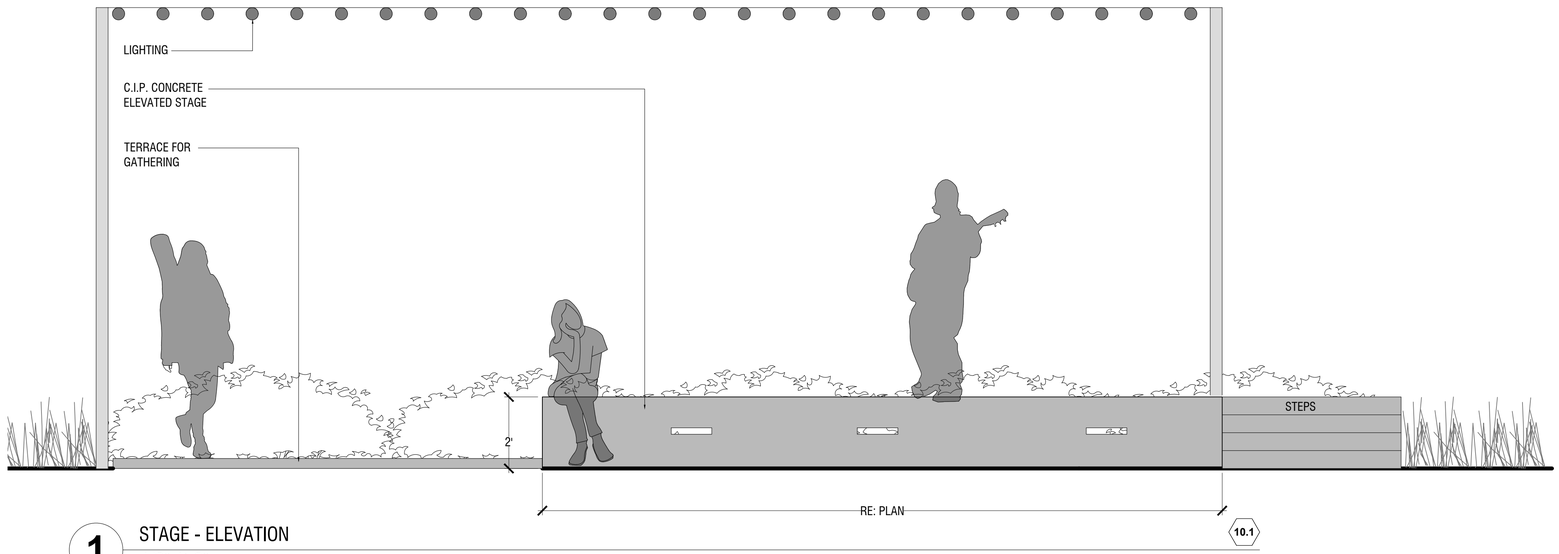
SHEET TITLE

LANDSCAPE DETAILS

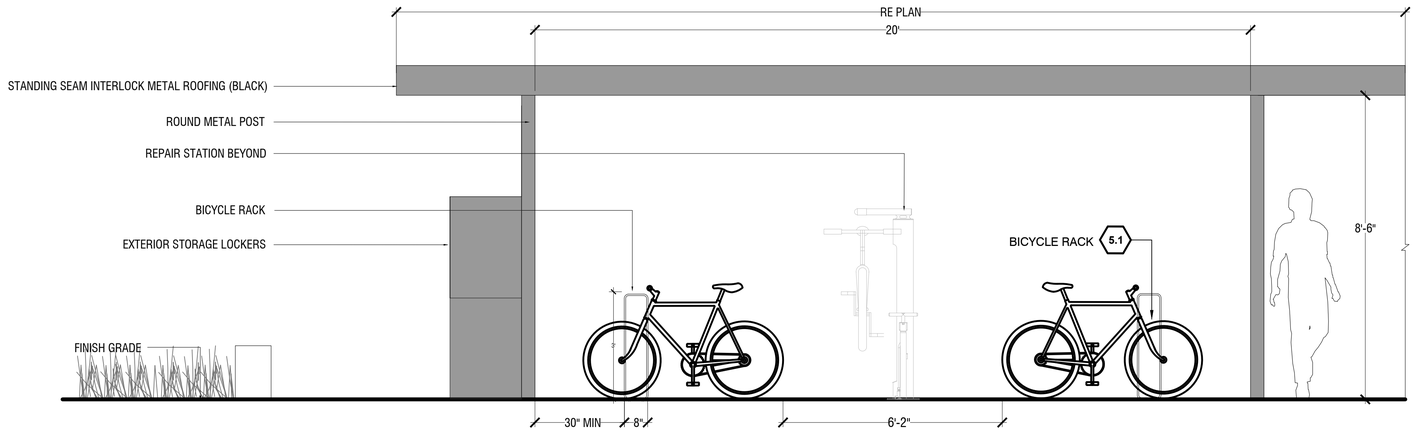
SHEET INFORMATION

L 3-01

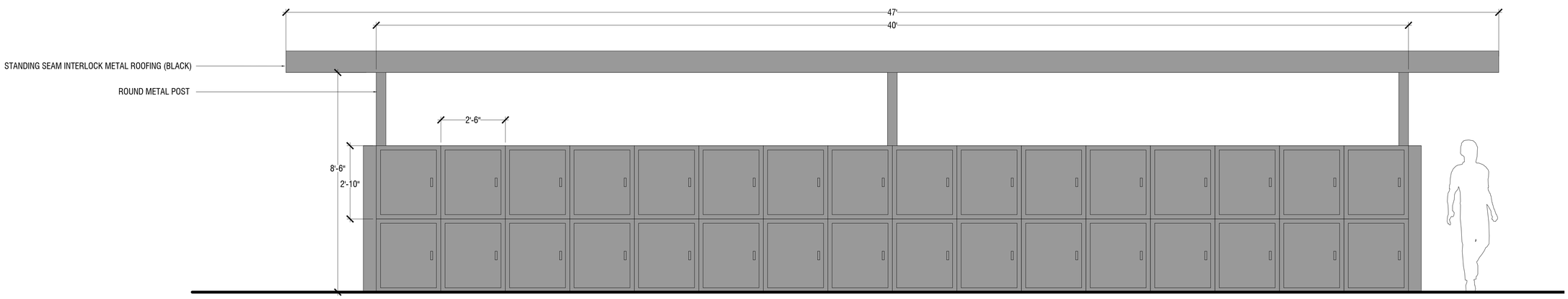
NOT FOR CONSTRUCTION



1 STAGE - ELEVATION
1/2":1'-0"



2 BIKE PAVILION
1/2":1'-0"



3 EXTERIOR STORAGE LOCKERS
1/2":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
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	10.5	BIKE REPAIR STATION	2/L3-03

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ISSUE DATE

AUGUST 31, 2021

SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-02

NOT FOR CONSTRUCTION

Emergency shelter data 0 views

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Amy Johnson Jul 27, 2021, 10:20:54 PM (12 hours ago)

to planni...@portlandmaine.gov, public...@portlandmaine.gov, md...@portlandmaine.gov

Dear Planning Board members,

During my public testimony tonight I committed to following up by email with the data I compiled about Oxford St Shelter use in recent months. That analysis is attached, and shows that we have been using substantially fewer than 200 emergency beds per night. Furthermore, if we want to plan a system that uses emergency beds only for short-term crises (and invest in better solutions for chronic homelessness), then the demand drops below 100 beds. As I indicated, this data was compiled during the course of tonight's meeting and culled from PDF documents; I'm generally pretty careful but it has not been double-checked.

In addition, I wanted to respond to a question about shelter sizes in New England. While Boston has at least one shelter larger than 200 beds, the largest shelter in Vermont is about 30 beds ; New Hampshire's largest adult emergency shelter (New Horizons in Manchester) hosts 75 guests per night. These peers are more comparable to Maine.

It also became clearer to me through discussion after the public comment period that the Planning Committee has limited jurisdiction over the size of the new shelter. While the safety of a 200-bed shelter is quite germane to the question of a conditional use permit in the zone, the more relevant question of appropriateness is a more general policy concern. Thus I have also cc'ed the remaining city council members on this email. While it may be out of context for those who were not present, I think the one-pager will still make sense.

Thanks in advance for considering this analysis, and for your service.

Amy Johnson
20 Armstrong Hts.
North Deering (D5)

Oxford Street Shelter Monthly Intake data[1]

	2020			2021		
	Total OSS Intakes	% Portland Residents	Avg OSS Beds by night	Total OSS Intakes	% Portland Residents	Avg OSS Beds by night
Jan	108	34%	182	83	34%	182
Feb	79	29%	175	8	63%	113
March	95	18%	169	53	43%	104
Apr	0	--	113+35*	119	24%	103
May	0	--	92+46*	75	31%	167
June	1	0%	75+44*	95	17%	169
July	18	50%	73+15*	--		
Aug	75	39%	84	--		
Sept	32	38%	100	--		
Oct	56	55%	104	--		
Nov	52	37%	128	--		
Dec	84	35%	142	--		

* Sullivan Wellness Center

Key points

- The stated policy goal is for **emergency shelter** stays of less than two weeks. Intake data at the Oxford Street Shelter (OSS) is the best estimate of "new" (emergency) shelter need in any given month.
- The finding that average nightly beds is substantially higher than the intakes in any given month suggests that there is unfortunately a substantial proportion of guests staying at OSS for longer than a month. The gap is a sign of the magnitude of the problem. The most recent (2019) annual report of the OSS cites 28% of guests as chronically homeless and only 44% staying fewer than 13 days.[2] If we invest public resources in emergency beds and not other options, we are cementing in place this status quo.
- Whether you use intake data or average nightly beds as the projected need you want to meet with *emergency* shelter beds, both numbers have been consistently below 200 in the past 18 months. The pre-pandemic data used to generate the target of 200 emergency shelter beds seems to be outdated.
- Portland residents account for a minority of intakes. The service model hub that has been proposed by the statewide homeless council would further reduce the need.
- Taken in combination, this data points to a need for fewer than 200 emergency beds and more investment in affordable and supportive housing models.

[1] Compiled 7/27/2021 from ESAC data posted at *http://www.portlandmaine.gov/Archive.aspx?AMID=61&Type=&ADID=*

[2] http://portlandmaine.gov/ArchiveCenter/ViewFile/Item/1039

Prepared By Amy Johnson, amyfjohn@gmail.com (Armstrong Hts.)

Homeless Service Shelter

Art Batson
unread,
Aug 23, 2021
to planni...@portlandmaine.gov

Please distribute to planning board before next meeting on August 24
Thank You
Art Batson
President
Lucas Tree Expert Co.

Sent from my iPad
LUCAS TREE EXPERTS CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

Planning Board
City of Portland
389 Congress St
Portland, Me 04101

Re: Homeless Service Shelter 654 Riverside Street
Dear Board Members:

I met with Steve Buchey from Gorrill Palmer on Tuesday 8/17 at Riverside St. We discussed some of the following issues:

1.Entrance Location onto Riverside St.

There are several issues associated with the location. When the city created the Riverside subdivision, a private road was design to service Lots 2, 4-1 and 4-2. Lot 2 was required to close its Riverside Street entrance and use the private road entrance. The reason was to eliminate in's and out's (curb cuts) onto a congested and fast-moving traffic road. During the summer months because of vehicles heading to the lake's region the traffic backs up from the light at Forest Ave past our facility at 636 Riverside St. It's nearly impossible to exit our entrance unless your turning right towards Warren Ave. Why is this project creating another curb cut only 175' from our entrance when it should be using the new created private road which I understand has spare underground conduit for a future project on Lot 4-2 and was part of the subdivision plans?
We have large trucks with trailers entering and exiting and with a new driveway it will create a new traffic hazard. With basically a 200-person hotel/w restaurant being proposed it would see to me that traffic calming device like a traffic light is needed near Waldon Way/Riverside Street.

2.Security Fence
With millions of dollars of equipment in our yard the introduction of a couple hundred people it seems only obvious that proper fencing is need to keep the flow of entrance and exits to one common area. We would be open to a shared fence on our common properly lines so that we don't have two fences side by side. In addition, outdoor security cameras would be a necessary to protect all involved.

3.Cell Tower on Lucas Property next to Portland Communication Tower on Lot 4-2.
There are several concerns regarding the towers. Everyone should remember the 1998 Ice Storm when we lost power for two plus weeks and steel tower structure came down like domino from here to Quebec City. What is a safe crash zone for these structures next to a 24 hour populated facility?
A second issue that should be explored is radio frequency exposure to humans from a duel communication antenna site. Having two towers side by side is unique. Most large towers are in isolated area without full time residency.

3.Erosion Control Issues
Other than a slope grass mix I see no landscape plans for erosion control along the steep embankment behind the facility. There is a proposed perimeter green road right along the edge of the embankment which will shed water to the embankment that consists of clay base material that was used as a fill for the site.
Test borings and pit data from S.W. Coles subsurface geo- technical findings show that the negative soils conditions and a soil remediation process will be extensive and costly to put a structure on the site

with pilings or geo-piers. Road and parking areas will require extra depth aggregate. Hopefully all these extensive costs have been considered in the planning?

4. Portland Trails
The combination of the Portland Trails easement and the proposed separate entrance and parking area in front of the property for visitors adds to the traffic on that site and questions the wisdom of where the entrance is currently planned. I think some type of fence separation is needed to give trail walkers a sense of security and guidance as they start out on their walk.

5.Conditional Use Standards and Criteria
There are several conditions that I think make this project not compatible with the current land use for our zone. The design and operation of this facility is out of character with business in this area. The introduction of 200+ people, who mostly travel by foot, into a heavy industrial zone with large volumes of commercial traffic will create many traffic hazards. Consider winter conditions, dark most of the time, after snow or ice storms with sidewalks not plowed for several days and speeding traffic with large trucks intertwined with a population traveling by foot to the bus top. My worst fear is that one of my trucks would be involved with a pedestrian . You are introducing a large residential use into a heavy industrial zoned area, excess foot traffic, litter, and safety issues to adjacent properties. The sheer volume is greater than other allowable uses in this zone. I would recommend that you deny the conditional use.

Thank You

Arthur W Batson Jr
President
Lucas Tree Expert Co.

Comment for 654 (638) Riverside Street

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0 views

Baxter Miatke Jul 27, 2021, 10:34:22 AM (yesterday)

to planni...@portlandmaine.gov

Hello,
If this comment is able to make the meeting tonight please add if possible.

I want to express my concern around the stormwater management plan at this site (654 (638) Riverside Street as it relates to the Presumpscot River specifically. I've been following along for awhile now and wanted to stress the importance of doing the due diligence as it relates to the stormwater management plan at this site. The presumpscot river is a critical resource to the city of Portland both recreationally and environmentally and I strongly disagree against any waivers from the technical manual to allow sheet flow across the site over steep banks without any controls and would rather suggest the site go above and beyond the technical manual standards to ensure the healthy, safety and stability of this site as it relates to the river and trails immediately along the bank. I have personally biked along the trail that runs along the river and this site and know how uniquely steep the banks are within that area.

Let me remind all of you, it was only one year ago that Westbrook had a PR nightmare with the landslide into the Presumpscot River literally just upstream of this site on Warren avenue.

From that event:
"A geologic investigation of the area in 1990 found that a layer of soft clay lies beneath the area and extends deep underground. The softness of the clay means that the material behaves like a viscous fluid that can “flow” rather than break into discrete pieces.This layer is referred to as the Presumpscot Formation, and a later 2008 geological survey found that the formation surrounds the river outside of its immediate banks. As per the senior geologist at the Maine Geological Survey and landslide expert (Lindsay Spigel), "said she has visited the site but didn’t get too close because the nearby land was still unstable. She cited the Presumpscot Formation as the cause of the landslide but couldn’t say for sure what triggered it."

Has anyone reached out to the geologists/engineers from that investigation and their official geologic assessment as it relates to this site specifically given the nature of that event just last year? Let's learn from those events rather than repeat them again.

Link to the source:
https://www.pressherald.com/2020/09/17/officials-test-stability-of-westbrook-riverbank-after-landslide-into-presumpscot-river/

As an environmental engineer myself registered in the state of Maine, I respect my fellow professional engineers and geologists who have prepared these designs, but would be remiss if I didn't offer my personal opinion and stress the importance of due diligence and exceeding the standards on a site as sensitive as this one and would encourage the planning board to be aware of their decisions and hold engineers like myself to a high standard and fully understand how the stormwater plan will affect the geology/erosion at the site to prevent landslides as it impacts the river given the unique characteristics of the area.

Best regards,
Baxter Miatke
12 Pinebrook Ln, Portland, ME

message for Maggie Stanley

1 view

Subscribe

Carolyn Silvius

Jul 27, 2021, 7:50:30 PM (yesterday)

to planni...@portlandmaine.gov

To address one question that you asked, There is a lovely lady on Brackett St who takes pets (cats and a few small dogs) for people living in shelters. She does not charge a penny to the clients, but relies on donations and her own income to care for them. Her home is clean with no smell, even with the 30 cats she has. I've never seen any waste in the cat boxes. She must be constantly scooping. My two cats with her for months. She gave them loving care and extra attention to prevent one of them from becoming feral. She allows the owners to visit by appointment at least once a week. Her name is Sally Rollins. Her phone # is 773 4217. For more info call her. I'm sure she'd be glad to speak to you. And if you can, send her a donation. When I picked up my cats to bring to my new home, I gave her $50.00. From her reaction you'd have thought it was a million. Just thought you'd like to know.

Homeless Services Center

Carolyn Silvius
Aug 22, 2021
to planning@portlandmaine.gov

I would like to start by saying that the proposed new Homeless Services Center is an ugly looking building with few or no inviting features. In my opinion, it looks more like a jail than a warm and comforting residence. But aesthetics aside-- my concerns are centered on practical facilities and accessibility for the elderly and handicapped guests. There are many types of handicaps, but my focus is on those that concern mobility. I have no firm numbers, but from my observations of several adult shelters, approximately one third of the populations are over 55 years old. Further many require mobility assistance such as canes or walkers, and others without these aids experience great pain in walking distances. This is a very long building. The frontage is 600 feet and when you add in the bedroom extension in the rear, it is about 800 feet or more. If a guest is in the day/cafeteria area and needs to get something from his locker, by the time he returns to the day area, he has walked about 600 feet. To use the bathroom and return is about 300 feet. These may not seem long distances to an able-bodied person, but to one with mobility issues, they could be quite incapacitating. The City is going to have to commit to a plan for mobility assistance such as wheelchairs or scooters for these individuals.

These comments are based on the diagram of the interior of the shelter included in section D of the planning board's conditional use standards. This diagram is very fuzzy and impossible to read. I have searched for a clear version of this and been unable to find one. Until a diagram is made available that can be read by concerned citizens, this shelter cannot be approved.

Another issue that arises is restroom facilities. In the diagram I see only one area for restrooms for shelter guests,and no staff restroom facilities. The one restroom is located about 600 feet from the far wall of the men's sleeping area and close to 800 feet from the far wall of the women's bedroom area. Those are very long distances to travel for anyone, and particularly for the disabled, with full bladders. The trek requires going through the sleeping areas and possibly disturbing lighter sleepers in the process. Further, there is no mention anywhere of how many stalls will be included or whether the restrooms will be designated and separated as men's room, women's room or other. I would submit that at times of high usage (early morning and before lights out), for 208 people there would need to be twenty five stalls to ensure no one has to wait more than half an hour to do his business. Also at least five more stalls must be designated as handicapped and reserved only for those who require those facilities. Since we are talking about a total of 30 stalls (and possibly 15 sinks for handwashing), it seems more practical to have a second restroom area closer to the sleeping area. In addition, to serve the fifty staff members, at least five more restroom facilities need to be established in various areas, especially near the office areas, and five more in the area of additional services (health clinic, police, etc).

The planning board has determined, in accordance with the existing rules, that metro stops must be located within a half mile of the shelter site. As far as I can tell, there are two metro stops that could serve this need, one on Riverside Street and one on Forest Avenue. The Riverside stop is about a half mile from the property line, but when you add in the footage of the driveway, which is nearly 700 feet from the shelter entrance to the road, it comes out to well over the half mile, so I would conclude that the Riverside St metro stop doesn't qualify. The Forest Ave metro stop is inaccessible to the Homeless Services Center unless the City builds an 875 foot sidewalk from the property line to Forest Ave. However, when you add in the 700 feet of the driveway and the remaining distance to the actual stop, you are very close to, if not over, the half mile required. More accurate measuring will

need to be done to determine if this metro stop actually qualifies under the half mile rule. In the case of either bus stop, that half mile is too far for the handicapped and elderly with mobility issues to access. There was also mention of a shuttle system, but no plan of funding it for the next ten, twenty, or thirty years. In my experiences with the City, I've found that programs like free bus tickets and shuttle services without long term funding plans, tend to disappear within three or four years.

The next issues don't necessarily involve handicapped access, however they are serious concerns with the management plan that I would like to include. The first involves the day/cafeteria area. The city has stated in it's plan for day space that the 212 chairs and corresponding 35 tables would be broken down and stored between meals. This raises a couple questions. It seems like it would take half an hour to an hour to break down and remove these tables and chairs, and the same length of time to put them back up for three meals a day. While this is being done, it is a total of three to six hours a day with no day space available. Where are the guests supposed to go during this time, and when they are allowed back into the day area, will they be in a big empty space with nowhere to sit? Also, where will these tables and chairs be stored when not in use? I see no storage areas in the diagram. This needs to be addressed before approval of the shelter plan, which requires adequate day space all day.

The next issue concerns laundry facilities. There is no reference in the diagram to the number of washing machines and dryers that will be included in this area. I expect that each of the 208 residents of the Center will need to do at least two wash loads of laundry each week. That's four hundred sixteen washerloads. A washer and dryer cycle, including loading and unloading will take about one and a half hours. Presuming that the machines will be running continuously for twelve hours a day, it would require ten washing machines and twenty dryers to barely meet the minimum requirements of two loads per resident per week. Although it's difficult to tell from the diagram, the space provided for laundry facilities doesn't look large enough to accommodate that many machines. Further, if these machines are running continuously, there will be breakdown time to consider, possibly requiring even more machines to take over for non functioning machine time.

I'm certain there are more practical concerns that I haven't thought of, but these seemed to be the most obvious to me. The City and DC need to answer a lot of questions before this Center can be approved and I would consider it undue haste for the planning board to go ahead with so many issues yet to be addressed.

Public comment on City Homeless Services Center Project (638 Riverside Street)

cecilia smith
to planni...@portlandmaine.gov

Dear Planning Board,

I am writing to express my concerns about the proposed Homeless Services Center in Riverside. My name is Cecilia Smith and I don't live near the proposed facility. Nevertheless, I think there are some serious problems with the current plan that I hope my Planning Board will address.

My first concern pertains to site conditions. Developing a huge impervious building on a river's edge is problematic and not in line with the City's sustainability goals. The site is surrounded by steep slopes adjacent to flood areas. The impervious cover ratio seems to be at the limit, leaving little to no room for likely changes to accommodate additional parking, or building space. According to the materials provided by the City, the impervious surface ratio = 0.4911.

- Given its proposed size, how will the site plan accommodate the need for more parking spaces or greater indoor area (such as storage) and still meet the impervious area maximum requirements?

- Does the site area take into account the area consisting of steep slopes? (This should be eliminated from the total allowable impervious area as the water is already running off directly into the river.)

- Given the site constraints there is need for a peer-reviewed stormwater management plan. A few rain gardens will not be sufficient for the size of the building and constraints on the lot. Allowing runoff into the Presumpscot River is unacceptable.

- In addition, a review should address riverbed stability issues, such as last year's landslide (very nearby) on the Presumpscot River. Is there a study that shows that the area is more stable than down the stream?

- I would like to see a reduction on the size of the building and impervious areas with more LID tools combined with subsurface systems that can adequately treat all runoff generated at the site. Has the developer considered a green roof to mitigate the building's size?

My second, yet related concern is the parking plan.

- In what basis is the assumption that people experiencing homelessness do not have vehicles? In my experience nothing could be further from the truth. While the current downtown facilities provide ample street parking how will this play out on Riverside Street? Will parking be allowed on the street in front of the Riverside site?

- Will staff members take the bus if they need transfers? At its current location, downtown, 1 parking space per employee is feasible, but once you reach an area where employees must make transfers from the METRO, it is not reasonable to assume 50% of employees will be taking the bus. Transfers add another 45 to hour time into someone's commute, making public transit not an option for many workers.

- What do we know about how many shelter staff currently ride the bus to get to work? What do we know about the number of staff who currently drive their car to work and park nearby?

I am also concerned about the transportation plan.

A basic rule in public transportation planning is frequency of bus service. Unfortunately, Portland does not have a robust public transportation system, and the only viable locations for those without vehicles is where land is most expensive, that is, Portland's downtown. Outer Forest Avenue is not served by adequate public transportation and is not walkable. The bus route serving the Riverton area has a very low frequency and is unreliable (does not run all hours).

To make this point, I urge you to consider some objective criteria: According to Walkscore.com, Riverside Street is in a car dependent neighborhood, where most errands require a car. Riverside Street site's walkscore is 42 out of 100. I understand that members of the HHS Committee and task force have visited shelters in the Boston area to learn more about how other areas operate low-barrier shelters. I want to point out that Father Bills at Quincy is 0.9 miles from Quincy's City Hall, and the subway. It is serviced by two city bus lines, running every 15 minutes. CASPAR, in Cambridge, is right by the subway station, in a heavily urbanized area, right next to MIT. All other emergency shelters in the Boston area are close to subway stations/high bus service areas/ in high-density urban locations.

While a shuttle service bus has been proposed, I worry about how it will be funded in the future, as property owners contest increases in taxes. USM transitioned to the METRO due to the high costs of operating a shuttle bus.

Last, as you may be aware, the emergency shelter siting process has been an incredibly divisive issue in our City. Not all Councilors approved the Riverside location and hundreds of residents, both housed and unhoused, spoke against both the shelter model and site selection process. At this moment Portland voters are waiting to cast their vote to change the conditional uses to limit the size of such facilities to a maximum of 50 beds. I urge you to wait until the people have cast their vote. Pushing the approval process at rapid speed to avoid a citizen referendum is not good policy and will only add to the divisiveness of this topic. Please slow down and carefully review all the concerns that have been raised and request peer-reviewed professional studies to be conducted. If this proposal is truly the best for the citizens of Portland, it will prevail post the November election.

Thank you for taking the time to read my concerns.

Sincerely,
Cecilia Smith
113 Warwick Street
Portland, ME

Stephanie Neuts
to cecilia smith, planni...@portlandmaine.gov

A plus!!!!

Public comment on City Homeless Services Center Project (638 Riverside Street)

0 views

Skip to first unread message

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Damon Yakovleff
9:57 AM (15 minutes ago)
to planni...@portlandmaine.gov

Dear Members of the Planning Board,

My name is Damon Yakovleff and I live at 72 Bolton St. in Portland. I am writing to express significant concerns about the proposed Homeless Services Center on Riverside St. The transportation infrastructure in this location is absolutely not adequate to support the proposed use, and will result in a number of pedestrian fatalities if constructed as planned.

There are very few facilities that will generate pedestrian trips on the scale this facility will. The existing facility on Oxford St. is located in an area with very good pedestrian infrastructure with generally good winter maintenance on sidewalks, especially in the adjacent Downtown area. The proposed location on Riverside Street could not be more different - it is an area primarily designed for higher-speed auto-based transportation. Sidewalks in the area are poorly cleared, if cleared at all, in the winter.

The improvements that are necessary are laid out well in the excellent letter submitted by the Portland Bicycle Pedestrian Advisory Committee, which I have attached here for your convenience. In particular, to avoid fatalities, extensive improvements must be made to all roads within one mile of road distance of the facility to do traffic calming, add full ADA compliant sidewalks, AND demonstrate that the city has fully funded winter maintenance on those sidewalks, including a complete four-season link from the facility to downtown along Forest Ave. The funded level of service for winter operations on the sidewalks must be shown to be no lower than that delivered for Portland Downtown District.

Without committed funding in place to make all of the improvements outlined in this letter, no approval should be made for this project.

Sincerely,

Damon Yakovleff

August 17, 2021

Honorable Members of the Portland Planning Board,

The Portland Bicycle Pedestrian Advisory Committee (PBPAC) has several transportation-related comments and concerns regarding the proposed Riverside St. 200-bed homeless services center.

Because this is a facility intended primarily for non-auto users, proposed to be located in a location with auto-centric design parameters, it is critical that a comprehensive Transportation Demand Management plan be developed that incorporates all modes of transportation and clearly indicates how trip generation will be managed as a condition of approval. A TDM would be an opportunity for a more comprehensive set of action steps around facility transportation needs.

Our requests are in **Bold** font:

- **Up-front details surrounding the shuttle van service including operating hours, route map, on-demand availability, and funding**. Being that a shuttle service of this type is sensitive to annual City Council budget processes, it is necessary to ensure that this service be maintained.

- Given that Portland already has at least car-camp where people live in their vehicles, an **effort should be made to understand how many shelter and day-services guests may be utilizing automobiles .** This may be challenging as the rigorous asset screening of shelter guests may make them reluctant to admit they have access to a car if it hurts their shelter eligibility. Nevertheless, given that the proposal is for a large shelter & service center on the City's periphery that is most easily accessed via automobile, one should expect the facility to generate more traffic (whether it be their own vehicle or via drop-off) than would be expected from a downtown location.

- The Management Plan included with the proposal does not include sufficient detail regarding pedestrian access to the facility. While it notes that a sidewalk is in place between the proposed location and the nearest METRO bus stop, the proposal does not indicate the adequacy of this sidewalk. Nor does it

address the adequacy of the pedestrian conditions beyond this single street segment, which will undoubtedly be in much greater use if the facility is located at this location. Nor is there any indication of the presence of any bicycle infrastructure on surrounding streets or an assessment of cycling conditions, or compliance with the City's Complete Streets guidelines. **Therefore, we recommend the Planning Board request a pedestrian and bicycle network adequacy assessment for all arterial street segments within one mile of network distance of the proposed facility location**. **Any deficiencies, such as non-ADA compliant sidewalks, lack of safe pedestrian crossing, and lack of safe bicycle routes or facilities on high speed roads should be required to be corrected as a permitting condition.**

- While it is laudable to promote transit use, and essential that a shuttle service to the proposed facility be provided, it cannot be assumed that all users will have access or feel comfortable using METRO bus services to reach the facility (for whatever reasons). **PBPAC therefore requests a full assessment of Forest Avenue between downtown Portland and the intersection with Riverside Street for full ADA level of service. If any sections are found deficient, they should be required to be funded for rebuild as a permitting condition.**

- Many users of the proposed facility will likely make extensive use of the routes outside the traditional street network. Therefore, **a full assessment of the trail and railroad network and how these routes are utilized and accessed should be provided.** [See attached trail map detail, Exhibit A]

- Regarding winter maintenance: **The City should be required to make the entire length of Forest Avenue a high-priority City-cleared sidewalk notably the gap between I-295 and Morrills Corner.**

- It must be noted that there have been recent Portland fatalities along busy byways poorly designed for pedestrian use. Edward Blumenthal (age 57) died along the stretch of Congress Street that crosses the Fore River sometime in September 2017. Robert Belanger (age 58), struck by a city truck hauling snow, died along outer Congress Street in March 2018. In both cases, the circumstances surrounding these pedestrian deaths remained mostly unexplained to the public although inadequate accommodations for safe walking (especially after dark and during poor weather) may have played a significant factor in each death. The members of the Planning Board should recognize the similarities between these deaths (and others like them) and

the possible implications for the hundreds of shelter guests each month that will be traveling to and from the new Riverside facility in the years ahead.

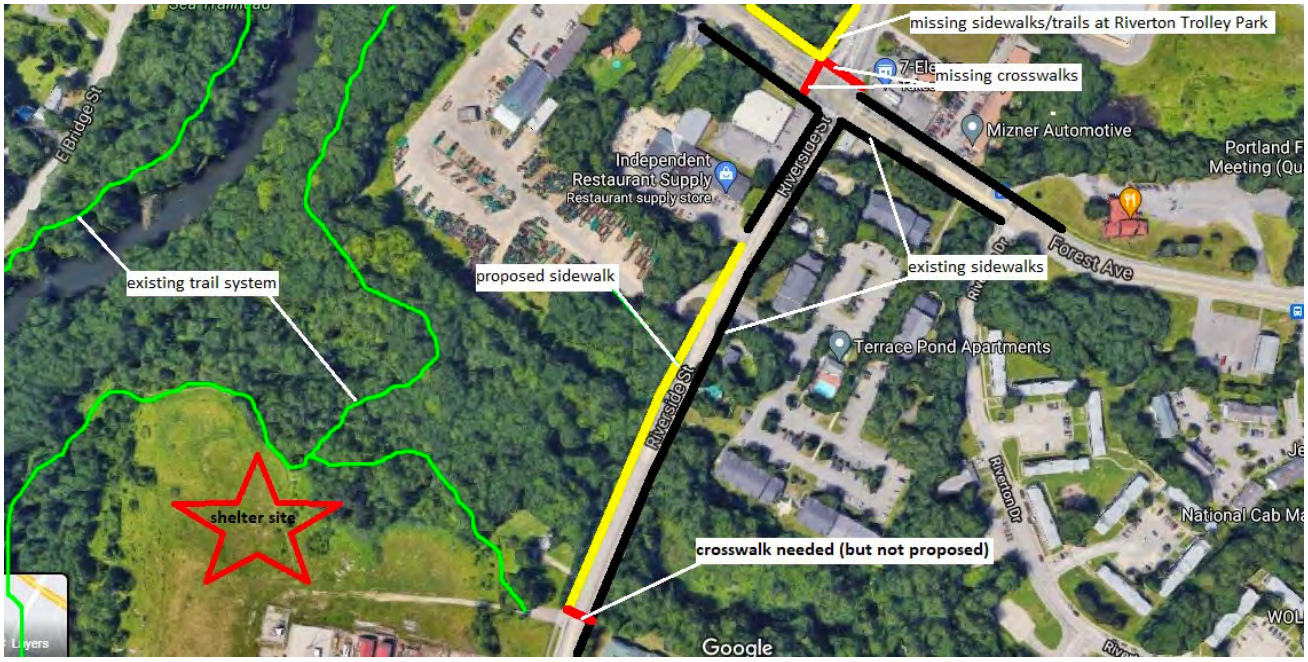
To be clear, our concerns are purely transportation-related, and our membership has diverse opinions about the merits of this proposal. However, we feel about the proposal or city homeless services policies, we stand united in believing that these transportation concerns should be addressed.

Sincerely,

Zachary Barowitz, Chair

The Portland Bicycle and Pedestrian Advisory Committee is an ad-hoc group of Portland-area residents working to make the city and region a better place to walk, bicycle, and wheel chair. We advocate and educate on bicycle, transit, and pedestrian issues, including handicap accessibility, with support from the city's Healthy Portland office, and in collaboration with other offices and organizations including the Bicycle Coalition of Maine, Portland Trails, PACTS, the Department of Public Services and the Planning Department.

EXHIBIT A



Map/image courtesy of Jaime Parker

Concerns regarding proposed Riverside st. Shelter

Damon Yakovleff

Aug 24, 2021

to planni...@portlandmaine.gov

Dear Portland Planning Board Members,

Thank you very much for giving me a chance to comment this evening despite some technical difficulties related to my rural location. I think this actually serves to highlight my concern regarding the poor prospect of doing good public outreach during the summer months, and why this proposal should not be fast tracked. The prospect of getting good outreach done in September and October is significantly better.

Regarding transportation concerns - I highlighted much of these in a earlier email. I will add that, even with some of the additional work discussed, much more remains to be done to accommodate the intense pedestrian traffic this facility will attract. It is not enough to just build a better sidewalk to Forest ave: A comprehensive sidewalk network to ada standards and cleared of snow to a high level of service is needed.

I hope you will ask the highly qualified professional staff working on this proposal to address these concerns before any approval is granted.

Thank you all for your hard work and dedication.

Sincerely,

Damon Yakovleff
Bolton St.
Portland

Planning Board meeting regarding proposed Shelter on Riverside Street

dgr...@maine.rr.com
unread,
Aug 19, 2021, 9:37:15 PM (11 hours ago)

to planni...@portlandmaine.gov

The parcel of land located on Riverside Street that is earmarked for homeless shelter is remarkably unsafe given its proximity to the Presumpscot River and the large wooded area on the city's parcel of land that is between the proposed building site and the river. This message has been conveyed to the City Council on many occasions during public comments during of the City Council meetings that have been held on the shelter location decisions when topics of this Riverside site were being discussed.

Growing up in Portland and being aware of multiple crimes of opportunity that have taken place where there has been an overgrowth of trees, such as the loss of a school-age peer Richard "Ricky" Stetson on Back Cove in 1982 (may he continue to rest in peace), the area between the Eastern Promenade and the East End Beach where several of my friends have been victimized, as well as 2 attacks on females that happened on the property behind my childhood home on Sheridan Street due to the overgrowth of shrubbery and lack of attention to landscape detail by my neighbor, I am horrified to think of the safety issues that this parcel poses for any un-housed person who is invited to the property, by the city, for safe shelter.

In addition to the wooded area of the parcel of land, at the intersection of Route 302 and Bridge Street, which is located within 2000 feet of the shelter site, the Presumpscot River regularly floods, such as in 2010 and 2011, and is under flood watch with heavy rains and every spring. The proximity of the fast moving Presumpscot river behind the city parcel is a liability for the city because there are a multitude of purposeful and accidental possibilities that can result in bodily harm or death to un-housed individuals - which the planning board must address for the benefit of any un- housed person who is invited to the property by the city for safe shelter; and for the benefit of fiscal accountability to the the tax payers in the event of a tragedy.

I feel that taxpayer support for this site to be used for a shelter should only happen if there are many SIGNIFICANT measures that will minimize harm to the shelter recipients on the grounds outside of the shelter, and reduce the legal exposure that accompany pursuit of this parcel for a large scale project for the vulnerable members of society that are un-housed.

Sincerely,

Deborah Groff
55 Harris Avenue
Portland, Maine
04103

Public Comment for 638 Riverside Megashelter: Why Planning Board Needs to Push Back on "Cop-roganda"

Assi… Subscribe

0 views

George Rheault <george.rheault@gmail.com> 11:01 AM (1 hour ago)

to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, Matthew Grooms, jmy, Abigail Reed

If the citizens of Portland had a Planning Board that was truly independent and not comprised of people deeply invested in moving our homeless neighbors 5 miles from downtown, we might actually have some real scrutiny of the megashelter proposal scheduled for a public hearing on September 14th after a dizzying and rushed 7-week long public review process.

Real scrutiny would involve taking note of the fact that all the major players in this drama:
- Kevin Bunker
- Christine Grimando
- Frank Clark
- Kristin Dow

ALL of these people owe their jobs and sinecures to the same person (Jon Jennings who is about to beat it out of town for, literally, sunnier skies). Kevin Bunker is waist-deep in various real estate ventures across Portland that depend deeply on the cooperation and forbearance of City Hall. And of course the heads of Planning, Health & Human Services and the Police Department all have their jobs chiefly because they were prepared to kow-tow to instructions from Jon Jennings whether or not their professional judgment accorded with those instructions.

It is hard to say which city department has done more to stigmatize those experiencing homelessness and the provision of services to them, but the Police Department certainly has been the "muscle" in terms of harassing homeless persons and destroying their encampments and belongings. Having done their level best for years to "herd" the homeless into West Bayside, the Police Department leadership will soon be expected to enforce a new "peninsula off-limits" policy should the megashelter plan come to fruition.

A recent perfect case study of the insidious nature of the Police Department's actions came to light in August when another law enforcement agency, from far-flung San Diego, shined a big spotlight on the campaign of misinformation and hysteria that law enforcement in our community has been waging for years against our most marginalized neighbors.

See attached several New York Times stories that demonstrate the use of intentional "cop-roganda" over fentanyl exposure to stigmatize and isolate those struggling with heroin addiction in our community.

Also attached is our own local version of such "cop-roganda" involving a May 2020 incident which of course received LOTS of media play and was cited on multiple occasions by city officials in multiple forums.

As others have pointed out, drug dealers around the globe would be THRILLED if one could receive the narcotic effects of heroin-like substances like fentanyl from simple incidental contact. In fact, the pharmaceutical industry has spent a LOT of money trying to do just that without success. But of course the law enforcement community has a vested interest in brainwashing its personnel to believe that the mere handling of fentanyl can cause an overdose reaction or worse.

Such "cop-roganda" recently deployed in our very own Portland, should give the Planning Board great PAUSE in terms of BLINDLY accepting any statements from our Portland Police Department, especially surrounding any security analysis of the megashelter's physical layout and management plan.

Our police have shown they cannot be trusted with the complex and difficult facts surrounding the swirl of poverty, untreated drug addiction and mental illness and artificial housing scarcity that has created the unending perfect storm of homelessness in Portland which Portland's selfish elites have decided can only be addressed through an inhumane and inadequate megashelter on the city's border with Westbrook.

Hopefully our Planning Board will display some shred of independence and look past the spin and the conclusory statements and demand real third-party accountability rather than accepting as truth self-serving conflicted hogwash like police officers needing NARCAN administered to them simply because they were in the presence of fentanyl.

Portland police officer taken to hospital after being exposed to fentanyl

pressherald.com/2020/05/12/portland-police-officer-taken-to-hospital-after-being-exposed-to-fentanyl/

By Edward D. Murphy May 13, 2020

A Portland police officer was taken to the hospital after being exposed to fentanyl, a powerful synthetic opioid, while searching a car Monday night, police said.

The officer, who was not identified, was questioning Colby Pidgeon, 22, of Cape Neddick after spotting Pidgeon sitting in a parked car at Federal and India streets and behaving suspiciously, Lt. Robert Martin said in a news release.

Pidgeon was free on bail and his release conditions allowed police to search him or his vehicle.

While going through Pidgeon's car, the officer pulled a napkin from a door pocket, police said. Some powder that was in the napkin blew into the face of the officer, who soon began to feel ill and called an ambulance. A police supervisor administered Narcan, a drug that counteracts an opioid overdose, and the officer was taken to Maine Medical Center. He was released from the hospital later Monday night and has returned to duty, police said.

Pidgeon was charged with unlawful possession of a drug and violating conditions of his release. He was being held without bail at the Cumberland County Jail.

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The New York Times https://www.nytimes.com/2021/08/10/us/san-diego-fentanyl-overdose-video.html

San Diego Sheriff Releases New Details About Video of Deputy's Collapse

A lab analysis revealed fentanyl in a substance handled by a sheriff's deputy who later collapsed, but medical experts cautioned that merely handling the drug is insufficient to trigger an overdose.

By Isabella Grullón Paz

Aug. 10, 2021

Facing skepticism about body camera footage showing a trainee's collapse while investigating a substance he believed to be fentanyl, the San Diego County Sheriff's Department on Monday released several reports related to the incident, including the results of a laboratory analysis that found that the substances figuring in the dramatic video included fentanyl and methamphetamine.

The footage, which shows Deputy David Faiivae collapsing in a parking lot on July 3 shortly after handling a white powder, had been met with scrutiny from medical and addiction experts who said it was impossible to overdose on fentanyl simply by handling the drug.

In an edited video that the department released last week to demonstrate the dangers of fentanyl, Deputy Faiivae's field training officer, Cpl. Scott Crane, recounted that Deputy Faiivae "was OD'ing the whole way to the hospital."

Fentanyl is a powerful synthetic drug that is widely trafficked in illicit markets. Its potency can vary, especially when mixed with other substances, making it easy to overdose with very small quantities.

But even though the newly released documents show that the substances Deputy Faiivae handled later tested positive for fentanyl, fluorofentanyl and methamphetamine, they do not say whether Deputy Faiivae was found to have overdosed. An incident report lists "possible internal injury," "other major injury" and "unconsciousness" as the deputy's injuries.

Dr. Scott Krakower, a psychiatrist at Zucker Hillside Hospital in Queens, said in an interview last week that it does not take a lot of fentanyl to do harm. Not knowing fentanyl's potency could quickly lead to overdose symptoms if someone were to inadvertently sniff it.

"The only way to overdose is from injecting, snorting or some other way of ingesting it," Dr. Ryan Marino, medical director of toxicology and addiction medicine at University Hospitals in Cleveland, said after the video was initially released. "You cannot overdose from secondhand contact."

Although the reports do not clearly state how Deputy Faiivae may have gotten fentanyl in his system, they present a picture of the events that may have led to inadvertent ingestion of a drug.

Accounts from both Deputy Faiivae and Corporal Crane say that after responding to a report of trespassing at a mortuary in San Marcos, Calif., Deputy Faiivae tested three bags found in a suspect's car using a portable narcotics analyzer in the back of the patrol vehicle.

According to a follow-up report, the first two bags tested presumptive positive for fentanyl and the smaller third bag tested presumptive positive for methamphetamine.

In his statement, Deputy Faiivae said the third bag was partly opened, and that some particles of the substance had spilled onto the surface in the upper deck of the car. He then "swept the particles back into the bindle and placed all of the bags into an evidence bag."

When the results came back positive for fentanyl, Corporal Crane told Deputy Faiivae that they needed to double-bag the items "for safety." Deputy Faiivae then reached down to retrieve a second bag from his evidence kit, and when he did, placed his face

"approximately six inches from where he had been testing the substances," according to his statement. Corporal Crane told him not to get so close, and when he stood up "he began to feel lightheaded and fell down."

After Deputy Faiivae fell back, he was administered four doses of Narcan, a nasal spray containing naloxone, a drug used to combat the effects of an opioid overdose. Deputy Faiivae showed no reaction to the Narcan and was taken to a hospital by emergency medical workers and later recovered.

According to the National Institute of Drug Abuse, naloxone can quickly restore normal breathing to a person if their breathing has slowed or stopped because of an opioid overdose. Naloxone has no effect on someone who does not have opioids in their system.

Neither Corporal Crane nor Deputy Faiivae was available for comment.

The New York Times https://www.nytimes.com/2021/08/07/us/san-diego-police-overdose-fentanyl.html

Video of Officer's Collapse After Handling Powder Draws Skepticism

Medical experts said the video promoted a false narrative and confusion about fentanyl and ways it can lead to an overdose.

By Isabella Grullón Paz

Published Aug. 7, 2021 Updated Aug. 31, 2021

- Update: The San Diego sheriff released new details about the video of a deputy's collapse.

A dramatic video posted by the San Diego County Sheriff's Department that shows a trainee collapsing while investigating a substance he believed to be fentanyl has been met with skepticism from medical and addiction experts.

The video, which the department released on Thursday to demonstrate the dangers of fentanyl, shows body camera footage of Deputy David Faiivae, 32, collapsing in a parking lot on July 3 shortly after handling a white powder suspected to be cocaine or fentanyl, the Sheriff's Department said.

After Deputy Faiivae fell backward, his field training officer, Cpl. Scott Crane, gave him doses of Narcan, a nasal spray containing naloxone, a drug used to combat the effects of an opioid overdose. Deputy Faiivae showed no reaction to the Narcan and was taken to a hospital by emergency medical workers and later recovered.

The video was part of an effort by the San Diego sheriff to raise awareness about the increasing rates of fentanyl overdoses not only in the county but across the country, and the importance of carrying naloxone to save those who might overdose. But medical

experts have said that it is impossible to overdose on fentanyl simply through exposure, and suggested that misinformation about contact highs does little to help curb the opioid crisis.

"The only way to overdose is from injecting, snorting or some other way of ingesting it," said Dr. Ryan Marino, medical director of toxicology and addiction medicine at University Hospitals in Cleveland. "You cannot overdose from secondhand contact."

Fentanyl is a powerful synthetic drug that is widely trafficked in illicit markets. Its potency can vary, especially when mixed with other substances, making it easy to overdose with very small quantities.

Dr. Scott Krakower, a psychiatrist at Zucker Hillside Hospital in Queens, said it does not take a lot of fentanyl to do harm. Not knowing the fentanyl's potency could quickly lead to overdose symptoms if someone were to inadvertently sniff it.

An opioid overdose tends to leave victims with shallow, almost undetectable breath, limp limbs, blue lips and fingertips, and gurgling sounds coming from the mouth, said Leo Beletsky, a professor of law and health sciences at Northeastern University in Boston.

He added that "it is not biologically possible" to experience overdose symptoms, or to die, from touching or being exposed to the drug, and that alternative explanations to Deputy Faiivae's reaction could be the enormous stress and panic among law enforcement officers around this issue.

Most opioids take 30 to 90 minutes to become fatal, and a fentanyl overdose can be fatal in 10 to 15 minutes, Professor Beletsky said. He clarified that the only way to get fentanyl into someone's system through their skin is by using medically prescribed fentanyl patches for pain, and those have led to very few, if any, fatal overdoses.

He added that reactions to fentanyl such as Deputy Faiivae's tend to be reported only by police departments or drug administrations, and rarely has a toxicology report or a medical follow-up shown that an officer, in fact, overdosed on fentanyl.

> Microscopic amounts can be accidentally absorbed. But not anywhere near quantities that could make you feel symptoms, let alone overdose
>
> Fentanyl patches are specially designed to do this; they take hours w help of special gels
>
> OD on contact is a myth https://t.co/p8U6gA6SH9
> — Leo Beletsky (@LeoBeletsky) March 4, 2021

The Sheriff's Department said a full report on what was found in the car would not be available until Monday. In the body camera footage, one of the men can be overheard saying that the substance "tested positive for fentanyl."

The Sheriff's Department said Deputy Faiivae and Corporal Crane were each on vacation; neither could be reached on Saturday.

A report about the risks of incidental exposure to fentanyl found that the police and other authorities, including the U.S. Drug Enforcement Administration, have published false information about how fentanyl can become present in the body as well as what leads to an overdose, promoting the notion that a small amount of fentanyl absorbed through the skin can be fatal.

Addiction experts and harm-reduction specialists said this misconception can delay lifesaving help during overdoses and cause emergency responders to report vicarious trauma, compassion fatigue and panic attacks brought on by fear of the drug.

While trying to provide a public health advisory is well intentioned, "this kind of misinformation is definitely harmful," said Professor Beletsky, who was an author of the report with Dr. Marino.

"It misrepresents the signs and symptoms of overdose," he said. "It also adds to the already very elevated levels of stress and burnout and anxiety among law enforcement officers."

It also gets in the way of intervening properly when someone is experiencing a fentanyl overdose.

"If people think that they might die of an overdose from providing emergency assistance — that might cost lives," Professor Beletsky said.

A version of this article appears in print on , Section A, Page 20 of the New York edition with the headline: Video of Officer's Collapse After Handling Powder Draws Skepticism

Public Comment: 638 Riverside - Homeless Services Center - Transit Access Issues

George Rheault

to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, Matthew Grooms

As the planning staff and Planning Board do their level best to approve a terrible project at lightning speed driven by anti-homeless gentrification politics, it feels almost fruitless to attempt to expect any honest and meaningful analysis to be completed in the review of this project.

I will at least try - while I await the publication of more details from the applicant and the planning staff (which of course is essential for forming a complete understanding of what is before the Planning Board).

My focus in this email is on the conditional use requirement regarding transit access.

I should note that the current adult homeless shelter at Oxford Street is VERY close to the HUB (Elm Street Pulse) of the entire Greater Portland METRO network. Therefore, the applicant is desiring to disrupt this simple and easy access to the ENTIRE regional bus network in order to relocate homeless services to a distant outpost that only has one line operating in its vicinity. Indeed the distance between the corner of Oxford Street and the mid-block Elm Street METRO stop is LESS than the distance between the Riverton megashelter front door entrance and the beginning of the Riverside Street megashelter driveway entrance.

Attached is the Route 2 brochure from Greater Portland METRO for the Forest Avenue/Riverton bus line which is supposed to be the lifeline for those utilizing the proposed Riverton megashelter.

I urge the Planning Board to scrutinize that brochure carefully. These are the following questions which should arise in the minds of the Planning Board members after such scrutinizing:

- Has anyone reached out to Greater Portland METRO to discuss the current conditions on Route 2 and whether the heavy reliance that the Riverton megashelter wants to place upon Route 2 will have any adverse implications - short-term OR long-term? Are delays on this route already endemic and would additional users exacerbate any "on-time" performance goals that Greater Portland METRO has for this route?

- Can anyone explain how exactly the "Hannaford/Riverton" stop is negotiated by the bus operators (when the bus goes on and off Forest Avenue to enter and exit the Hannaford shopping complex)? Is the most efficient place for shelter users to wait for a bus to downtown Portland in front of the Hannaford store entrance on the actual Hannaford premises?

- What is the adequacy of the bus stops in the vicinity of the shelter? How many stops have seating? How many stops have covered shelters and what is the condition of those shelters currently (pictures please?)? The applicant and the City should absolutely be required to do an up-to-date inventory and present their findings to the Planning Board since an entire plank of the conditional use application depends on effective transit access.

- It appears from the Route 2 schedule that there are large gaps in service on the current route. "X" under the "Hannaford/Riverton" column suggests that at regular intervals Route 2 altogether SKIPS the most convenient stop in the Riverton area. A representative from Greater Portland METRO should appear before the Planning Board to explain what service is actually like today and what shelter users can expect going forward including what exactly an "X" on the brochure timetables means.

- What is the current capacity of the bus equipment that serves Route 2? Does Greater Portland METRO have a sense of how full a bus is now on this route? For example, if current fare data indicates that say 20 riders regularly occupy morning inbound buses with 40 seats to downtown Portland, does that not suggest that, at best, the Route 2 bus is only able to absorb 20 new riders (presumably shelter guests) per bus trip and therefore any shelter guests beyond that 20 person surplus capacity must wait for a whole other bus on the next timetable before getting a seat?

- How nimble is Greater Portland METRO in terms of adding an extra bus on a route, either consistently or when short-term demand presents itself? Could an extra bus be deployed quickly if a bus operator observes significant cueing at a stop? Indeed, how will chronic overcrowding on Route 2, to the extent it develops after the Riverton megashelter begins operations, be addressed in any meaningful way? Would it take YEARS before more frequency or bus capacity is added here?

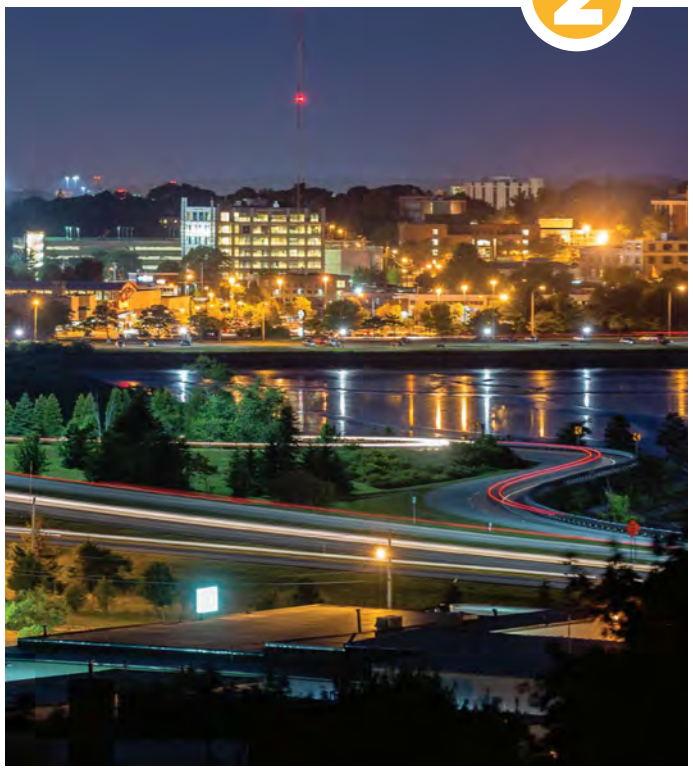
The reality is that the entire thrust of the plan for the Riverton megashelter is to exile those experiencing homelessness from the core of downtown Portland.

It is obvious that the representations that effective and efficient transit service exists within a 1/4 mile of the shelter have NOT been adequately evaluated by planning staff and therefore the Planning Board must make a far deeper inquiry into the questions raised above before it can adequately assess the transit-related prong of the conditional use application.

Effective January 24, 2021

Riverton
FOREST AVENUE

2



SATURDAY
OUTBOUND TO PRIDE'S CORNER

METRO Pulse (A)	Woodford's Corner (B)	Morrill's Corner (C)	Hannaford/ Riverton (D)	Pride's Corner (E)
6:20	6:28	6:33	X	6:45
7:20	7:28	7:33	7:40	X
8:20	8:28	8:33	X	8:45
9:20	9:28	9:33	9:40	X
10:20	10:28	10:33	X	10:45
11:20	11:28	11:33	11:40	X
12:20	**12:28**	**12:33**	**X**	**12:45**
1:20	**1:28**	**1:33**	**1:40**	**X**
2:20	**2:28**	**2:33**	**X**	**2:45**
3:20	**3:28**	**3:33**	**3:40**	**X**
4:20	**4:28**	**4:33**	**X**	**4:45**
5:20	**5:28**	**5:33**	**5:40**	**X**
6:20	**6:28**	**6:33**	**X**	**6:45**
7:20	**7:28**	**7:33**	**7:40**	**X**
8:40	**8:48**	**8:53**	**X**	**9:05**
9:40	**9:48**	**9:53**	**10:00**	**X**

SATURDAY
INBOUND TO DOWNTOWN PORTLAND

Pride's Corner (E)	Hannaford/ Riverton (D)	Morrill's Corner (C)	Woodford's Corner (B)	METRO Pulse (A)
6:50	X	7:00	7:05	7:15
X	7:52	8:00	8:05	8:15
8:50	X	9:00	9:05	9:15
X	9:52	10:00	10:05	10:15
10:50	X	11:00	11:05	11:15
X	11:52	**12:00**	**12:05**	**12:15**
12:50	**X**	**1:00**	**1:05**	**1:15**
X	**1:52**	**2:00**	**2:05**	**2:15**
2:50	**X**	**3:00**	**3:05**	**3:15**
X	**3:52**	**4:00**	**4:05**	**4:15**
4:50	**X**	**5:00**	**5:05**	**5:15**
X	**5:52**	**6:00**	**6:05**	**6:15**
6:50	**X**	**7:00**	**7:05**	**7:15**
X	**8:00**	**8:08**	**8:13**	**8:28**
9:10	**X**	**9:20**	**9:25**	**9:35**
X	**10:00**	**10:08**	**10:13**	**10:23**

SUNDAY
OUTBOUND TO PRIDE'S CORNER

METRO Pulse Elm St (A)	Woodford's Corner (B)	Morrill's Corner (C)	Hannaford/ Riverton (D)	Pride's Corner (E)
8:20	8:28	8:33	X	8:45
9:20	9:28	9:33	9:40	X
10:20	10:28	10:33	X	10:45
11:20	11:28	11:33	11:40	X
12:20	**12:28**	**12:33**	**X**	**12:45**
1:20	**1:28**	**1:33**	**1:40**	**X**
2:20	**2:28**	**2:33**	**X**	**2:45**
3:20	**3:28**	**3:33**	**3:40**	**X**

SUNDAY
INBOUND TO DOWNTOWN PORTLAND

Pride's Corner (E)	Hannaford/ Riverton (D)	Morrill's Corner (C)	Woodford's Corner (B)	METRO Pulse (A)
8:50	X	9:00	9:05	9:15
X	9:52	10:00	10:05	10:15
10:50	X	11:00	11:05	11:15
X	11:52	**12:00**	**12:05**	**12:15**
12:50	**X**	**1:00**	**1:05**	**1:15**
X	**1:52**	**2:00**	**2:05**	**2:15**
2:50	**X**	**3:00**	**3:05**	**3:15**
X	**3:52**	**4:00**	**4:05**	**4:15**

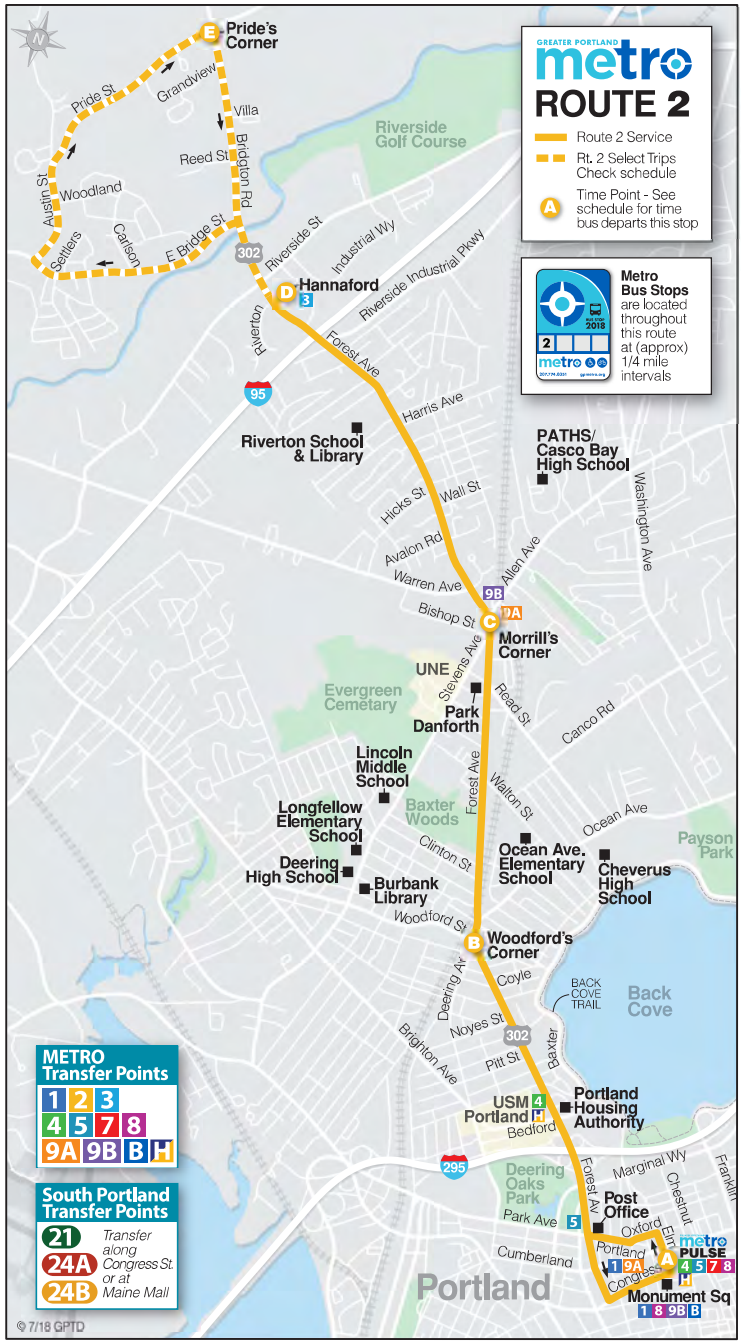
Corey Templeton Photos:
Skyline towards USM/Back Cove biking

GREATER PORTLAND metro
207.774.0351 gpmetro.org

Effective January 24, 2021

MONDAY THROUGH FRIDAY
OUTBOUND TO PRIDE'S CORNER

METRO Pulse Elm St (A)	Woodford's Corner (B)	Morrill's Corner (C)	Hannaford/ Riverton (D)	Pride's Corner (E)
5:45	5:53	5:58	X	6:10
6:15	6:23	6:28	X	6:40
6:45	6:53	6:58	7:05	X
7:15	7:23	7:28	7:35	X
7:45	7:53	7:58	X	8:10
8:15	8:23	8:28	8:35	X
8:45	8:53	8:58	X	9:10
9:15	9:23	9:28	X	9:40
9:50	9:58	10:03	10:10	X
10:20	10:28	10:33	10:40	X
10:45	10:53	10:58	X	11:10
11:15	11:23	11:28	X	11:40
11:50	11:58	**12:03**	**12:10**	**X**
12:20	**12:28**	**12:33**	**12:40**	**X**
12:45	**12:53**	**12:58**	**X**	**1:10**
1:10	**1:18**	**1:23**	**X**	**1:35**
1:45	**1:53**	**1:58**	**2:08**	**X**
2:15	**2:23**	**2:28**	**2:38**	**X**
2:45	**2:53**	**2:58**	**X**	**3:14**
3:15	**3:23**	**3:28**	**X**	**3:44**
3:50	**3:58**	**4:03**	**4:13**	**X**
4:20	**4:28**	**4:33**	**4:43**	**X**
4:50	**4:58**	**5:03**	**X**	**5:19**
5:20	**5:28**	**5:33**	**X**	**5:49**
5:55	**6:03**	**6:08**	**6:18**	**X**
6:25	**6:33**	**6:38**	**X**	**6:50**
7:30	**7:38**	**7:43**	**X**	**7:53**
8:40	**8:48**	**8:53**	**X**	**9:03**
9:40	**9:48**	**9:53**	**10:00**	**X**
10:40	**10:45**	**10:50**	**10:56**	**X**



Please note: Route does not service Prides Corner Park and Ride.

Route map and stops subject to change.

MONDAY THROUGH FRIDAY
INBOUND TO DOWNTOWN PORTLAND

Pride's Corner (E)	Hannaford/ Riverton (D)	Morrill's Corner (C)	Woodford's Corner (B)	METRO Pulse Elm St (A)
6:10	X	6:23	6:28	6:40
6:45	X	6:58	7:03	7:15
X	7:13	7:23	7:28	7:40
X	7:43	7:53	7:58	8:10
8:10	X	8:23	8:28	8:40
X	8:43	8:53	8:58	9:10
9:15	X	9:28	9:33	9:45
9:45	X	9:58	10:03	10:15
X	10:13	10:23	10:28	10:40
X	10:43	10:53	10:58	11:10
11:15	X	11:28	11:33	11:45
11:45	X	11:58	**12:03**	**12:15**
X	**12:13**	**12:23**	**12:28**	**12:40**
X	**12:43**	**12:53**	**12:58**	**1:10**
1:15	**X**	**1:28**	**1:33**	**1:45**
1:40	**X**	**1:53**	**1:58**	**2:10**
X	**2:12**	**2:22**	**2:27**	**2:40**
X	**2:42**	**2:52**	**2:57**	**3:10**
3:14	**X**	**3:27**	**3:32**	**3:45**
3:44	**X**	**3:57**	**4:02**	**4:15**
X	**4:17**	**4:27**	**4:32**	**4:45**
X	**4:47**	**4:57**	**5:02**	**5:15**
5:19	**X**	**5:32**	**5:37**	**5:50**
5:49	**X**	**6:02**	**6:07**	**6:20**
X	**6:18**	**6:28**	**6:33**	**6:45**
6:55	**X**	**7:08**	**7:13**	**7:25**
8:00	**X**	**8:10**	**8:15**	**8:30**
9:05	**X**	**9:15**	**9:20**	**9:35**
X	**10:10**	**10:17**	**10:22**	**10:35**

Brunswick's Tedford Housing plans to build new emergency shelter at Cooks Corner

pressherald.com/2021/08/30/brunswicks-tedford-housing-plans-to-build-homeless-shelter-at-cooks-corner/

By C. Thacher Carter August 30, 2021

After almost a decade of looking to expand, Tedford Housing is proposing a new emergency shelter for Brunswick's homeless.

The 17,568-square-foot facility would be built off Thomas Point Road in Cooks Corner. A preliminary review and a public hearing is scheduled for Sept. 28.

Tedford runs two shelters in downtown Brunswick, one for adults and one for families. The proposed building would replace the existing shelters and consolidate them into one facility with two wings.

Renderings of Tedford Housing's proposed new facility in Brunswick. *Courtesy of Tedford Housing.*

This would increase adult emergency housing capacity from 16 to 24 beds, and the family capacity from six to 10 families. Sixty-four emergency housing beds would be available. The facility would have office space.

"Homelessness continues to be an issue in our community," Tedford Housing Executive Director Rota Knott said. "Our buildings are not appropriate given their age and their configurations for the services that we need to be providing for residents of our community experiencing homelessness."

Between July 2020 and July 2021, Tedford turned away 284 individuals and 74 families due because it didn't have space. In total, thirty-eight adult guests and 15 families were given rooms. The average stay in the adult shelter was 74 days and 124 days for the family shelter.

Tedford Housing's Cumberland Street unit in Brunswick, as seen in this March 2017 file photo (Ben Goodridge / The Times Record)

According to Knott, the demand for beds is not a new issue.

During the 2020 fiscal year the average shelter stay was 88 days for the adult shelter, and 134 days for the family shelter. Prior to the pandemic, which Knott said caused a significant jump in stay-length, the average stay was 53 days in the adult shelter, and 92 days in the family shelter during the 2019 fiscal year.

Tedford has wanted to expand since 2013. Until recently, however, zoning stood in the way.

The Cooks Corner location — a predominantly commercial area in Brunswick — was selected after reviewing hundreds of properties and receiving feedback from clients, Knott said. The location offers clients a wide range of needed services, she added, such as proximity to the hospital, mental health services and Walmart — which provides employment, food and supplies for people.

"The other reason is that there are very few zones in the town of Brunswick where shelters are now allowed as a conditional use," Knott said. "We had to identify those sites and that narrowed it down considerably."

According to Brunswick Planning and Development Director Matt Panfil, of the 27 zoning districts in the growth area, Tedford's facility would be allowed in seven of them.

Knott said she encourages anyone with questions or concerns to contact Tedford Housing.

"We just hope that the neighbors are willing to engage in dialogue with us and to learn about us and what we really are planning," Knott said.

Tedford does not yet know how much the building will cost. Tedford plans to fund construction through gifts, grants and short-term loans and hopes to break ground on the project next year.

According to The U.S. Department of Housing and Urban Development's 2020 annual homeless assessment report, on a single night in January of 2020, 2,097 Maine people were homeless, 141 of which were unsheltered.

This translates to 15.6 out of every 10,000 people experiencing homelessness in Maine on that day, although, Knott said she believes the numbers are greater.

The Maine State Housing Authority has 42 total emergency shelters listed, nine of which are in Cumberland County.

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Public Comment 638 Riverside Street Megashelter: Compare & Contrast Proposed New Homeless Shelter for Brunswick

Assi… Subscribe

0 views

George Rheault <george.rheault@gmail.com> 11:01 AM (1 hour ago)

to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, Matthew Grooms, jmy, Abigail Reed

Please see attached a recent story discussing the plans for a new small shelter that Tedford is planning on the outskirts of Brunswick.

What things can our incurious, "dog ate my homework" Planning Board and planning staff learn from what is happening up the road?

Of great note is the fact that Kevin Bunker serves on the Board of Directors and has since circa Summer 2017. Very interesting that Mr. Megashelter is also serving as a fiduciary for a homeless services organization that has been actively planning a small shelter! What a Renaissance Man, that Kevin Bunker! He can do BIG and SMALL homeless shelters!

Telford (and of course the powers that be in Brunswick) have gone done a somewhat familiar path as Portland:

1) Use convoluted zoning powers to prevent renovation/capacity upgrades to existing shelter [CHECK!]
2) Locate new shelter close by public housing project serving families [CHECK!]
3) Remove existing shelter from central core of community [CHECK!]
4) Locate new shelter in area that makes it both difficult AND unsafe for homeless to access central core of community from which they have been exiled [CHECK!]

Concerns with building design of Homeless Services Center (infectious disease perspective)

Gloria Driessnack

to planni...@portlandmaine.gov

Dear Planning Board,

I hope this email finds you well. My name is Gloria Sclar and I am a resident of Portland. I work remotely as a public health researcher for Emory University in the Department of Environmental Health.

I am writing to express my concerns with the proposed building design for the Homeless Services Center at Riverside. I have reviewed the July 23 memorandum document that goes over the site plan and conditional use standards. I have many concerns about the building, **but am primarily concerned about the design implications on the spread and transmission of infectious diseases, especially COVID-19.** No doubt this must be on your mind as well, but I wanted to be sure to send an email as I saw no mention of COVID-19 in the memorandum document (this is very concerning...).

In looking at the building plan, it is clear with the current design that a virus like COVID-19 would spread very quickly in this environment. The current design has extremely large open sleeping areas to accommodate 208 guests, as well as a kitchen/cafeteria area with seating for 212. This is *very concerning* to have such large congregate sleeping and eating areas with no structural design that separates groups to help prevent and contain a potential infectious disease outbreak.

Is there an infectious disease risk management plan in place for the operation of this building? What can be done to the actual building design to *prevent* a future outbreak or prevent a severe one? How can the ventilation system be improved to help mitigate this risk? Is it possible to have smaller sleeping areas so guests are better separated throughout the night (rather than a divider which will not be sufficient to prevent transmission)? For example, schools and daycares are able to quarantine single classrooms when a student or teacher tests positive rather than shutting down the entire building. A similar approach could be taken with the Homeless Services Center if it is structurally designed this way.

Thank you so much for your time and efforts on critically reviewing this project! I am just concerned that poor building design has the potential to do more harm than good here.

All best,
Gloria Sclar
25 Sandy Terrace
Portland, ME

654 Riverside Street Property Questions

Subscribe

0 views

Jason Lambert Jul 25, 2021, 8:57:37 AM (yesterday)

to planni...@portlandmaine.gov

Hello,

I live on Ruby Lane in Portland and had a few questions for the developer/city about the subject property:

-Most of the subject property is flat, but there is a precipitous drop at the back that leads to the Presumscot River. Are there plans for a fence here?

-On August 30, 2010, the State of Maine Department of Agency produced a report on this site. According to this report of the State, remedial action was taken to remove almost 300 tons of contaminated soil from the property. The report also says that, “Use of the property shall be limited to industrial, commercial, municipal, and other non-residential uses and not be residential without prior written permission of the Department.” Has the city obtained this permission? (see attached)

-In thinking about the contaminated soil, is the city going to allow clients to sleep outside on the property if they so choose? If so, are there specific areas where remediation occured that will be marked off.

-Has there been any contact with the city of Westbook to discuss potential impact of this project on the residential neighborhoods just across the river?

Attached is the VARP associated with this site.

Thank You,
Jason Lambert

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF PORTLAND ATTN: GREG MITCHELL DIRECTOR OF ECONOMIC DEVELOPMENT 389 CONGRESS STREET PORTLAND, ME 04101	))))))	COMMISSIONER'S CERTIFICATION OF COMPLETION OF REMEDIAL ACTIONS UNDER A VOLUNTARY RESPONSE ACTION PLAN

FILE COPY

JURISDICTION

This certification of completion of a Voluntary Response Action Plan ("VRAP") is made pursuant to the authority vested in the Commissioner of the Maine Department of Environmental Protection ("Department") or the Commissioner's delegee under 38 M.R.S.A. Section 343-E.

FINDINGS OF FACT

1. The covered property (property and/or site) is the former Lucas Tree site located at 636 Riverside Street in Portland, and is identified on the City of Portland Tax Map 322 as Lot A-001 and Tax Map 323 as Lot A-003. The site is 40.85 acres in size. A map of the property is included as Attachment A.

2. The property use in the area is mixed residential and commercial.

3. A Phase I Environmental Site Assessment (ESA), a Phase II ESA, and a Supplemental Phase II ESA were prepared by Tewhey Associates ("Tewhey") in September and December of 2005 and January 2008, respectively, with funding from the City of Portland's Municipal Brownfields Program. These reports identified two areas requiring remedial actions: the spent sand blast grit area and the former greenhouse area.

4. In July 2010, Ransom Environmental Consultants, Inc. ("Ransom") directed remedial activities on the property. Under Ransom's direction, soils were removed from both areas of contamination and loaded on trucks for appropriate disposal. The spent sand blast grit area was cleaned to a visual standard, as earlier sampling had demonstrated that contamination was directly related to the easily identified black sand blast grit. The former greenhouse area was excavated to a standard 2 feet below grade level, based on earlier sampling results for the contaminant of concern, arsenic. Post excavation sampling demonstrated that soils had been cleaned up to typical background in 5 of the 6 samples, with one sample area having a higher level. Given that the bulk of the contaminated soil volume was removed from this area, the actual risk from this small hotspot area is low, and additional remedial action will not be necessary. A total of 296.74 tons of arsenic contaminated soils and spent sand blast grit were excavated from the property and sent to Commercial Paving and Recycling in Scarborough, Maine for recycling. The remedial actions are documented in a letter report dated August 23, 2010 and submitted by Ransom entitled "Lucas Tree Site, 636 Riverside Street, Excavation and Remediation Activities".

CITY OF PORTLAND ATTN: GREG MITCHELL DIRECTOR OF ECONOMIC DEVELOPMENT 389 CONGRESS STREET PORTLAND, ME 04101	2 COMMISSIONER'S CERTIFICATION) OF COMPLETION OF REMEDIAL) ACTIONS UNDER A VOLUNTARY) RESPONSE ACTION PLAN)

CONCLUSIONS

1. The City of Portland, as an applicant, has submitted a Voluntary Response Action Plan application to the Commissioner pursuant to 38 M.R.S.A. § 343-E for the property located at 636 Riverside Street in Portland, Maine which is identified on the City of Portland Tax Map 322 as Lot A-001 and Tax Map 323 as Lot A-003 .

2. Site assessments conducted at the site included investigations and reports that adequately identified the nature and extent of contamination associated with identified sources at the property.

3. Actions addressing identified contamination on the property have been completed. These actions included the removal of arsenic contaminated sand blast grit and soils associated with a former greenhouse.

4. Provided the City of Portland, as applicant, and their successors and/or assigns comply with the conditions of this certification, the response actions that have been completed and the activities associated with the continued use of the site will not cause, contribute, or exacerbate releases, or threatened releases, if they exist at the site, that are not required to be removed under the VRAP.

THEREFORE, pursuant to 38 M.R.S.A. § 343-E(5), Mark Hyland, Director, Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection certifies, subject to the conditions set forth below, that remedial actions have been completed at the property located at 636 Riverside Street in Portland, Maine, identified on the City of Portland Tax Map 322 as Lot A-001 and Tax Map 323 as Lot A-003, and further described in Book 27870, Page 299, at the Cumberland County Registry of Deeds. Upon issuance of this CERTIFICATE, the City of Portland, as applicant, and the persons qualified for protection under 38 M.R.S.A. § 343-E(6) are entitled to the protection from liability to the extent provided by 38 M.R.S.A. §343-E(1) and (5). This protection from liability is limited to the matters addressed by and identified by the environmental reports and is subject to the qualifications and conditions set forth below and in 38 M.R.S.A. § 343-E.

CONDITIONS

1. The future installation of potable wells on the property is prohibited without prior written permission from the Department.

2. Use of the property shall be limited to industrial, commercial, municipal and other non-residential uses and not be residential without prior written permission of the Department.

3. A copy of this certificate for the property located at 636 Riverside Street in Portland shall be recorded at the Cumberland County Registry of Deeds. A copy of the recorded document must be supplied to the Department.

CITY OF PORTLAND ATTN: GREG MITCHELL DIRECTOR OF ECONOMIC DEVELOPMENT 389 CONGRESS STREET PORTLAND, ME 04101	3))))	COMMISSIONER'S CERTIFICATION OF COMPLETION OF REMEDIAL ACTIONS UNDER A VOLUNTARY RESPONSE ACTION PLAN

4. A Declaration of Environmental Covenants, as defined in 38 M.R.S.A. § 3001 et seq., that is consistent with this Certificate and acceptable to the Department must be prepared and recorded at the Cumberland County Registry of Deeds. A copy of the recorded document must be supplied to the Department.

DONE AND DATED AT AUGUSTA, MAINE, THIS 30TH DAY OF AUGUST 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: _____
Mark Hyland, Director
Bureau of Remediation & Waste Management

STATE OF MAINE
KENNEBEC, ss.,

August 30th, 2010

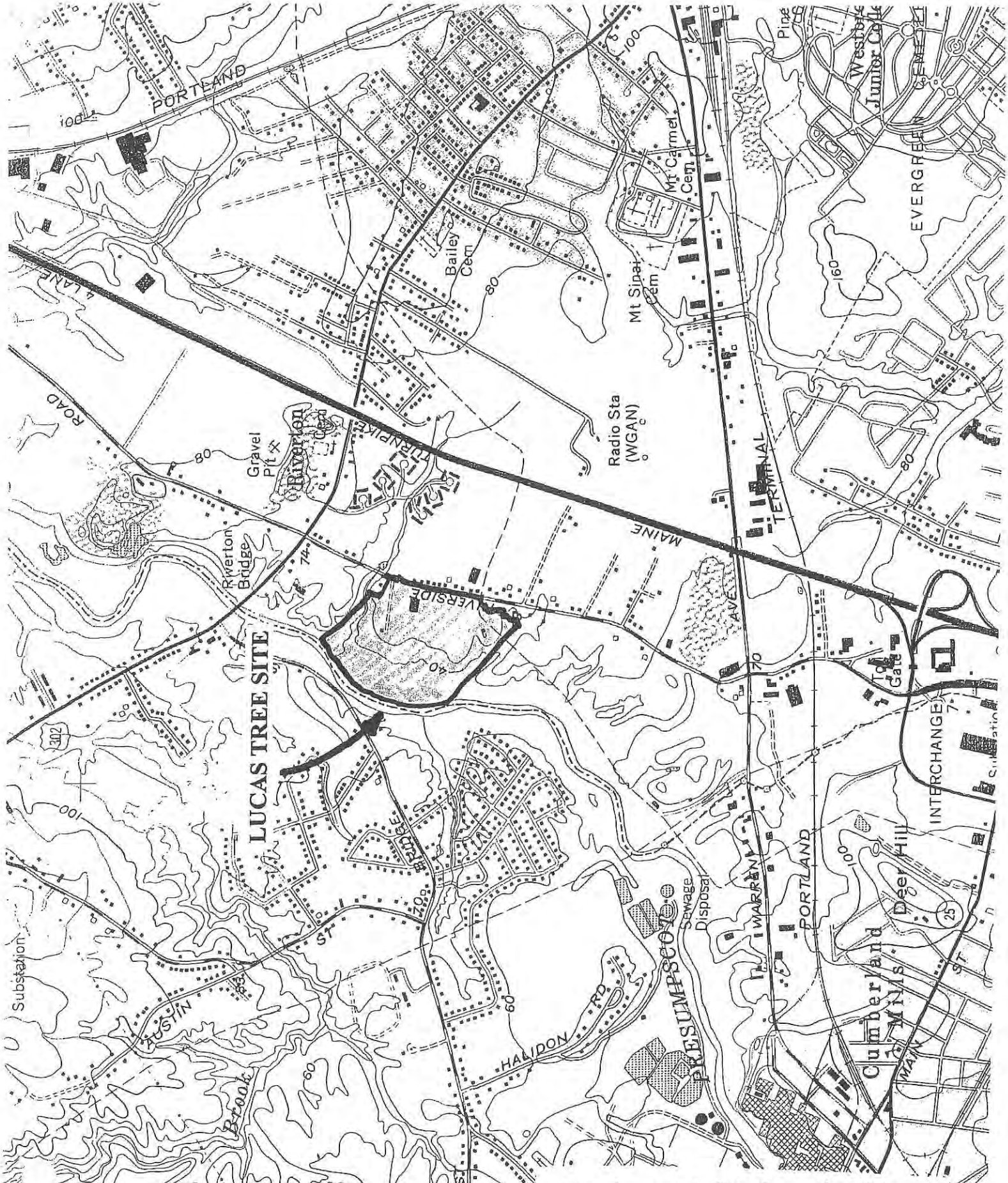
Then personally appeared the above-named Mark Hyland, Director, Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection and duly authorized delegee for the Commissioner, and acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of the Department of Environmental Protection.

Before me,

Laura L. Gay
Notary Public

Laura L. Gay
(Print Name)

This order was prepared by Nicholas J. Hodgkins, Bureau of Remediation & Waste Management.



Attachment A-Site Location Map

Riverton Homeless Shelter 654 (638) Riverside Street

0 views

Skip to first unread message

Subscribe

Jason Lambert
unread,
Jul 30, 2021, 8:41:16 AM (6 days ago)

羊

to planni...@portlandmaine.gov

Dear Planning Board;

First of all, thank you for holding a workshop on the Riverton Shelter proposal on Tuesday, July 27th. It was informative, and I appreciate that the board asked many great questions. I hope it is evident to all that this is not a project to be rushed, if it is to be built at all. Thank you in advance for reading the following concerns.

-In reference to a comment Mr. Dunfey made about Riverton residents thinking every person experiencing homelessness is horrible. I don't hear that at all. In fact, Riverton is the only neighborhood in the city that has been willing to accept a shelter. The concern is that the proposed shelter would be the second largest low-barrier shelter in New England, and it is going into a largely residential neighborhood on the edge of town.

-There was nearly 300 tons of contaminated soil removed from the property. If the developers have the appropriate permits and certificates from the state, why wouldn't they include them in their proposal? It makes it seem as though the developer is hiding something. Also, is the developer aware of where the contaminated soil was removed? Are plans for gardens away from these areas?

-The developer expressed much concern about erecting a fence because of fears it would appear prison-like, yet the proposal creates sight lines to watch over sleeping guests. What is more prison like, sight lines, or a fence? The back of this property abuts a steep decline that leads to a river. Wouldn't it be prudent to put up a fence there to avoid accidents?

-In their proposal, the developers shared a map that only showed the industrial properties that directly abut the subject property, yet Terrance Pond Apartments is right across the street, and Riverton Park is very close by. Why weren't these properties included in the map? Also, there are residential homes directly across the river in Westbrook. This area around the subject property is much more residential than the developer led the board to believe.

-Lastly, shouldn't the neighborhoods along East Bridge Street in Westbrook be part of this discussion?

Thank you for taking the time to read through my concerns.

Sincerely;
Jason Lambert
Ruby Lane

Justin B
to planni...@portlandmaine.gov

To the Members of The Planning Board,

My name is Justin Beth... a renter at 86 Congress St. Apt. 6. I am writing to you regarding many concerns about the proposed Riverside Homeless Service Center with regards the Conditional Use Standards and to unintended impacts on the city of Portland. I would urge you to take your time and ignore the pressure to fast track this approval process. The public (myself included) is very sensitive to making sure this is done with great care and thorough detail.

I am primarily concerned with impact to traffic and to pedestrian safety, related to this project. With the increased population, due to new residents at the proposed shelter, will result in increased demands on public transportation and will result in higher traffic volume at the intersection of Riverside Street and Forest Avenue. During rush hour, the traffic is already incredibly backed up and this will only get worse. Add to that the need for more people crossing the road at this busy intersection, which increases the frequency at which pedestrians may be at risk of injury or death.

We are talking about progress lives. Please.... take the time to get this right, because their lives are literally in your hands.

Sincerely,
Justin Beth
justin.p.beth@gmail.com
Cell: (207) 841-3464

HOMELESS SERVICE CENTER, RIVERSIDE STREET

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0 views

Leslie E. Lowry
to planni...@portlandmaine.gov

Jul 27, 2021, 4:17:00 PM (yesterday)

Leslie E. Lowry, Esq.

Attorney

JENSEN BAIRD

Ten Free Street

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(207) 985-4676 (Phone)
(207) 985-4932 (Fax)

July 27, 2021

Members of the Planning Board
City of Portland
387 Congress Street
Portland, Maine

Re: Homeless Service Center, Riverside Street

Dear Planning Board Members:

We are submitting this letter on behalf of Suburban Propane as part of the public planning process for the Riverside Street Homeless Service Center project begins.

First, Suburban wants to be clear that it is not opposed to the concept of the Homeless Service Center being sited on Riverside Street. Second, Suburban believes it is important for the developer and the Board to understand the area and take appropriate account for the circumstances existing in this neighborhood.

As an initial matter, we want the Board to consider how the IM zone is described in the Ordinance as follows:

> "To provide zones in areas of the city in which low- and moderate-impact industries and transportation-related uses will coexist. I-M and I-Ma zones are located on arterials or collectors. The I-Mb zone is similarly located on the peninsula. These locations provide for direct access onto arterials, thereby protecting residential neighborhoods from drive-through traffic. The purpose of the I-M, I-Ma and I-Mb industrial zones is also to provide for larger industrial buildings and for the limited or controlled use of areas outside of structures for storage of materials and machinery. These facilities often require large volumes of

> imported materials and products which result in large volumes of shipping and receiving. Often uses may be highway-oriented and transportation-related, thus relying on citywide and regional transportation infrastructure. Industrial uses in these moderate-impact industrial zones may require separation from higher-impact uses."

With the potential of increased foot traffic along Riverside and through Suburban Propane's property, there are security concerns that will need to be addressed. The concerns fall under two general categories Employee/Customers Safety and Plant/Facility Safety. The safety of our employees, customers and the general public is our biggest concern and below points out categories that identify some of the most serious concerns that could lead to injury in the event anyone that tampers with or does not follow proper safety protocol or which can adversely effect Suburban Propane's ability to run the business.

Employee/Customer Safety

- Employees & customers getting to and from their vehicles while accessing the building, the portion of the parking lot used by employees and customers is not fenced or secured.
- Entrance to the building by people looking to use the bathroom or asking for money, food, etc.

Plant/Facility Safety

- Accessing parts of the facility that are highly dangerous is a major concern, note there is over five thousand feet of piping connecting the below equipment that run both Liquid and Vapor Propane. Tampering with any of this equipment could result in serous injury:
    - Bulk Liquid Propane storage of 3-30,000 gallon tanks.
    - 3 Liquid Propane loading racks used to fill Bobtail delivery trucks
    - Pump house used to offload and charge liquid propane tanks
    - A cylinder charging station
- There are 4 Bobtails and 5 Service vehicles with cranes and often loaded with tanks that frequently enter and exit the facility.
- At various times of the day and night Liquid Propane tractor trailers carrying up to 10,000 gallons enter and exit the facility to transfer product.
- Dismantling or tampering with any of the safety equipment i.e. fire extinguishers, (ESV) emergency shut off values or security cameras could result in system failure and cause serious injury.

There are similar safety concerns from other abutting business, each of which also use heavy machinery involved in their industrial operations.

- Schnitzer Northeast – This is a large scrap metal recycling plant. The equipment used at the facility is highly dangerous.
- Lucas Tree Service – Tree maintenance and removal service business. They have vehicles and equipment on location that would provide attractive shelter for those not inclined to use the shelter facility.
- Seacoast Scaffold – This company is in the business of supplying large contractors with scaffolding equipment which is located on-site at Riverside.

We expect that the developer is aware of these existing conditions in this vicinity. We expect that the Board and the developer will work together to ensure a facility that is not only safe for those utilizing and working at the HSC, but will also undertake all reasonable efforts for the safety of those persons using and those who are simply "attracted" to the area of the facility. In that regard, a full understanding of the risks to all of those persons and the impact on the neighbors needs to be realistically addressed with forethought.

Suburban looks forward to reviewing the materials with these primary goals of safety and security in mind.

Sincerely,

Leslie E. Lowry

portlandbikeped

PORTLAND BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE

August 17, 2021

Honorable Members of the Portland Planning Board,

The Portland Bicycle Pedestrian Advisory Committee (PBPAC) has several transportation-related comments and concerns regarding the proposed Riverside St. 200-bed homeless services center.

Because this is a facility intended primarily for non-auto users, proposed to be located in a location with auto-centric design parameters, it is critical that a comprehensive Transportation Demand Management plan be developed that incorporates all modes of transportation and clearly indicates how trip generation will be managed as a condition of approval. A TDM would be an opportunity for a more comprehensive set of action steps around facility transportation needs.

Our requests are in **Bold** font:

- **Up-front details surrounding the shuttle van service including operating hours, route map, on-demand availability, and funding**. Being that a shuttle service of this type is sensitive to annual City Council budget processes, it is necessary to ensure that this service be maintained.

- Given that Portland already has at least car-camp where people live in their vehicles, an **effort should be made to understand how many shelter and day-services guests may be utilizing automobiles .** This may be challenging as the rigorous asset screening of shelter guests may make them reluctant to admit they have access to a car if it hurts their shelter eligibility. Nevertheless, given that the proposal is for a large shelter & service center on the City's periphery that is most easily accessed via automobile, one should expect the facility to generate more traffic (whether it be their own vehicle or via drop-off) than would be expected from a downtown location.

- The Management Plan included with the proposal does not include sufficient detail regarding pedestrian access to the facility. While it notes that a sidewalk is in place between the proposed location and the nearest METRO bus stop, the proposal does not indicate the adequacy of this sidewalk. Nor does it

address the adequacy of the pedestrian conditions beyond this single street segment, which will undoubtedly be in much greater use if the facility is located at this location. Nor is there any indication of the presence of any bicycle infrastructure on surrounding streets or an assessment of cycling conditions, or compliance with the City's Complete Streets guidelines. **Therefore, we recommend the Planning Board request a pedestrian and bicycle network adequacy assessment for all arterial street segments within one mile of network distance of the proposed facility location**. **Any deficiencies, such as non-ADA compliant sidewalks, lack of safe pedestrian crossing, and lack of safe bicycle routes or facilities on high speed roads should be required to be corrected as a permitting condition.**

- While it is laudable to promote transit use, and essential that a shuttle service to the proposed facility be provided, it cannot be assumed that all users will have access or feel comfortable using METRO bus services to reach the facility (for whatever reasons). **PBPAC therefore requests a full assessment of Forest Avenue between downtown Portland and the intersection with Riverside Street for full ADA level of service. If any sections are found deficient, they should be required to be funded for rebuild as a permitting condition.**

- Many users of the proposed facility will likely make extensive use of the routes outside the traditional street network. Therefore, **a full assessment of the trail and railroad network and how these routes are utilized and accessed should be provided.** [See attached trail map detail, Exhibit A]

- Regarding winter maintenance: **The City should be required to make the entire length of Forest Avenue a high-priority City-cleared sidewalk notably the gap between I-295 and Morrills Corner.**

- It must be noted that there have been recent Portland fatalities along busy byways poorly designed for pedestrian use. Edward Blumenthal (age 57) died along the stretch of Congress Street that crosses the Fore River sometime in September 2017. Robert Belanger (age 58), struck by a city truck hauling snow, died along outer Congress Street in March 2018. In both cases, the circumstances surrounding these pedestrian deaths remained mostly unexplained to the public although inadequate accommodations for safe walking (especially after dark and during poor weather) may have played a significant factor in each death. The members of the Planning Board should recognize the similarities between these deaths (and others like them) and

the possible implications for the hundreds of shelter guests each month that will be traveling to and from the new Riverside facility in the years ahead.

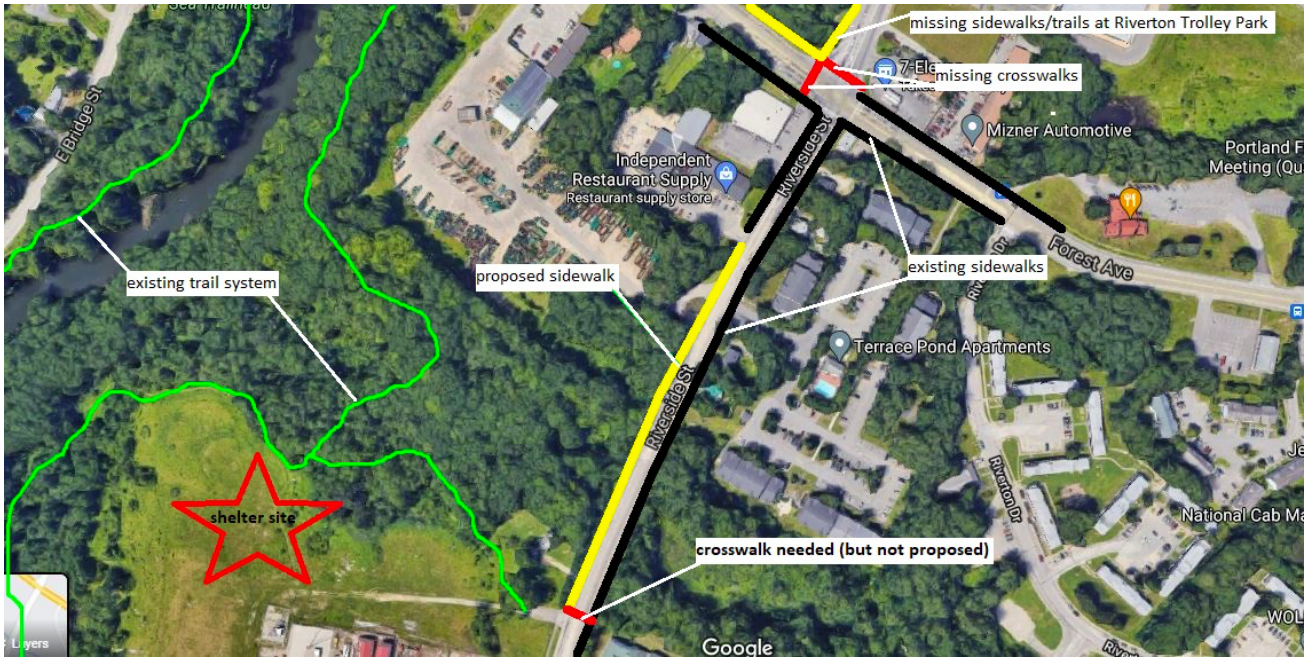
To be clear, our concerns are purely transportation-related, and our membership has diverse opinions about the merits of this proposal. However, we feel about the proposal or city homeless services policies, we stand united in believing that these transportation concerns should be addressed.

Sincerely,

Zachary Barowitz, Chair

The Portland Bicycle and Pedestrian Advisory Committee is an ad-hoc group of Portland-area residents working to make the city and region a better place to walk, bicycle, and wheel chair. We advocate and educate on bicycle, transit, and pedestrian issues, including handicap accessibility, with support from the city's Healthy Portland office, and in collaboration with other offices and organizations including the Bicycle Coalition of Maine, Portland Trails, PACTS, the Department of Public Services and the Planning Department.

EXHIBIT A



Map/image courtesy of Jaime Parker

Sally Bowden-Schaible
to planni...@portlandmaine.gov

To the Planning Board:
I urge you to postpone any approval given to proceed with the HSC on Tuesday. I will be more specific in a follow-up email and in my comments that I will give on Tuesday. I have concerns about the design and location of the building and believe a postponement is important in order to address the questions many members of the community have.

Thank you,

Sally Bowden-Schaible, LCPC, CCMHC
1sallybs@gmail.com
207.939.3254

27 Birchvale Dr
Portland, ME 04102

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Letter urging a pause to approval for Riverside HSC proposal

Sally Bowden-Schaible
Aug 21, 2021, 1:12:59 PM (yesterday)
to planni...@portlandmaine.gov

To the Portland Planning Board:

As a clinical mental health counselor with nearly 35 years of experience, I have worked for organizations such as Shalom House, York County Counseling Services Inc., Crisis & Counseling, and the ACCESS Team. And many years ago, I provided regular consultation to the staff of what was then the Family Crisis Shelter and is now Through These Doors. Most of my clients over these years have experienced significant trauma (emotional, physical, sexual abuse, neglect, abject poverty), so I understand the complexities inherent in providing appropriate support and treatment for these individuals.

As you know, there are many reasons people become homeless—and traumatic and abusive experiences further complicate those reasons. Persons experiencing mental illness, addiction, and poverty, for example, oftentimes also have experienced significant trauma increasing their vulnerability during times of crisis—such as when facing homelessness. It is hard enough to negotiate life challenges at the best of times, so needing to negotiate in ways that are safe and non-traumatizing in **a large shelter system at the edge of town is a horrible option to have face.**

My concern extends to the geographic closeness of a Portland Trails trailhead where there could be easy access to secluded, unmonitored trails and wooded areas for using or dealing drugs and/or alcohol. I am also concerned about the safety of women (and vulnerable men and transgender persons) who could be assaulted on the trail.

A model of a 200-bed shelter where adults in crisis (men, women, transgender persons of all ages who have had *adverse life experiences* of a wide range) are together, even if for a short period of time, only adds to the likelihood that they will experience further trauma. And ***further trauma complicates the path of healing and recovery*** which, in turn, perpetuates the suffering and probable need for treatment programs, services, shelter, etc. in the future.

From a financial perspective, as well as from a humanitarian perspective, to proceed without seriously considering this reality is short-sighted and, I believe, irresponsible. In addition to the cost of human lives, including costs to the health and well-being of the community and society as a whole, there will be the financial costs to clean up, repair, and re-develop a shelter system that cannot succeed for the long-term.

Trauma-Informed Care (TIC), which *includes* ***design of buildings*** such as a homeless shelter, is considered "best practice". And the research increasingly has become clear as to what a trauma-centered shelter design needs to consider. *(I can provide you links to these documents if you are interested in reviewing them. I've provided one below.)* The model proposed by the City and Developers Collaborative does not appear to have taken these needs into consideration.

Psychologist, Joe Colletti, PhD, a social reformer, educator, consultant in California with years of experience working to end homelessness wrote: *"As shelters developed over the last few decades, the impact of trauma on a homeless person's health and well-being was not earnestly considered when designing a shelter or providing services and care. Although shelters may have trauma-informed trained staff, often the shelter environment and physical surroundings are not trauma-informed."*

I urge you to pause in this approval process to consider the *MANY* flaws in the design and in the location of Developers Collaborative and the City's Homeless Service Center model.

Thank you for the work you do on behalf of the City of Portland and thank you for considering the information being presented to you.

Respectfully,

Sally Bowden-Schaible, MS, LCPC, CCMHC
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207.939.3254
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https://homelessstrategy.com/author/joecolletti/

Sally Bowden-Schaible

To the Planning Board—

I thought I would forward a summary from a large review of data gathered related to COVID transmission and homeless shelters. Also, Maggie Stanley asked questions about staffing, so I'm also attaching a link to HUD staffing guidance:

https://files.hudexchange.info/resources/documents/COVID-19-Homeless-System-Response-Case-Management-Ratios.pdf

RESEARCH RELATED TO COVID transmission and homeless shelters:

ABSTRACT
Background: People experiencing homelessness (PEH) may be at risk for COVID19. We synthesised evidence on SARS-Cov-2 infection, transmission, outcomes of disease, effects of non-pharmaceutical interventions (NPI), and the effectiveness of strategies for infection prevention and control (IPC).
Methods: Systematic review of articles, indexed in electronic databases (EMBASE, WHO Covid19, Web of Science), institutional websites and the Norwegian Institute of Public Health's live map of COVID-19 evi- dence, and published from December 1st, 2019, to March 3rd, 2021. Empirical papers of any study design addressing Covid-19 and health(-related) outcomes in PEH or shelters' staff were included. (PROSPERO- 2020-CRD42020187033)

Findings: Of 536 publications, 37 studies were included (two modelling, 31 observational, four qualitative studies). Random-effect meta-analysis yields a baseline SARS-Cov-2 prevalence of 2 32% (95% Confidence- Interval, 95%CI=1 30 334) in PEH and 1 55% (95%CI=0 79 231) in staff. In outbreaks, the pooled preva- lence increases to 31 59% (95%CI=20 48 42 71) in PEH and 1480% (95%CI=10 73 18 87) in staff. **Main IPC strategies were universal rapid testing, expansion of non-congregate housing, and in-shelter measures (bed spacing, limited staff rotation, reduction in number of residents).**

Interpretation: 32% of PEH and 15% staff are infected during outbreaks of SARS-Cov-2 in homeless shelters. Most studies were conducted in the USA. No studies were found quantifying health-related outcomes of NPI. Overview and evaluation of IPC strategies for PEH, a better understanding of disease transmission, and reliable data on PEH within Covid-19 notification systems are needed. Qualitative studies may serve to voice PEH and shelter staff experiences, and guide future evaluations and IPC strategies.

From page 18:
As the quality of included studies varies, findings should be considered with caution. Yet, they clearly suggest that PEH are at high risk of being infected with SARS-Cov-2, especially in case of outbreaks in shelters. Potential pathways for transmissions deserving further investigation are the "mobile nature of the community and use of multiple homeless service sites among residents" [37], crowded sleeping arrangements and difficulties in adhering to recommended behavioural interventions due to lack of resources and private space. Furthermore, PEH face serious mental health challenges [38,53] and economic difficulties that prevent them from accessing preventive material and maintaining physical distancing in general [58].

FROM: A. Mohsenpour et al., **SARS-Cov-2 prevalence, transmission, health-related outcomes and control strategies in homeless shelters: Systematic review and meta-analysis, EClinicalMedicine (2021)**, https://doi.org/10.1016/j.eclinm.2021.101032

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The Increasing Need for Trauma-informed Care Shelters

Joe Colletti, PhD/Policy Insights/August 3, 2020
Last Updated August 3, 2020 / 1 Comment

Merely Creating Conventional Shelters will Minimally Reduce the Number of Homeless Persons Who Are Languishing on the Streets

It is time to realize that

- many homeless persons are not willing to live in large open spaces for long periods of time with many people they do not know and some that they may know but do not trust and a few that they fear;
- for a significant number of homeless persons, living on the streets in survival mode is the preferred choice over living in a shelter that is not trauma-informed; and
- the physical and social environment of homeless shelters can contribute to traumatizing and re-traumatizing experiences to shelter residents.

Trauma-informed shelters can eliminate many of the reasons why persons living homeless on the streets refuse to stay in a shelter.

Reasons include:

1. Do not want to live in an open warehouse type setting with little or no privacy day after day;
2. Living in a facility that offers little room for movement;
3. Lack of confidence that another shelter stay will be different from previous stay(s);
4. Will not be able to follow all the early check-in and early wake-up rules because of a disability, illness, work, and appointments;
5. Concern for personal safety once inside the shelter;
6. Feel too vulnerable to potential verbal and physical abuse from others;
7. Fear of potential violence by others to self and others;
8. Do not want to be separated from a partner, friend, or pet;
9. Very limited space with locks to store personal belongings;
10. Having to leave the shelter and possessions behind during the day;
11. Concern that personal possessions will be stolen;
12. Fear of having personal possessions thrown away;
13. Lack of privacy while using restroom and shower;
14. Unsanitary conditions;
15. Fear of other people's infectious diseases;
16. Feelings of shame, blame, guilt, and stigma;
17. Inadequate staffing especially overnight;

18. Living in a shelter may be filled with one confrontational experience after another with staff;
19. Insufficient supportive services to obtain permanent affordable housing; and
20. Shortage of permanent affordable housing.

Next Steps

An increase in trauma-informed shelters is necessary in order to eliminate many of the reasons why homeless persons languishing on the streets refuse to live in a shelter and to encourage them to end their homelessness experience by obtaining and maintaining permanent housing.

As shelters developed over the last few decades, the impact of trauma on a homeless person's health and well-being was not earnestly considered when designing a shelter or providing services and care. Although shelters may have trauma-informed trained staff, often the shelter environment and physical surroundings are not trauma-informed.

Principles for Trauma-informed Design and Tenets of Trauma-informed Care

Trauma-informed shelters incorporate trauma-informed design into the physical environment of the shelter to support the tenets of trauma-informed care and evidence-based practices, which also integrate well with the trauma-informed approach of Housing First, Harm Reduction, and Progressive Engagement.

Principles for Trauma-informed Design

The Substance Abuse and Mental Health Services Administration (SAMHSA) model provides three principles that serve as guidelines for trauma-informed design

- ***Realizing*** *how the physical environment effects [sic] an individual's sense of identity, worth, dignity, and empowerment*
- ***Recognizing*** *that the physical environment has an impact on attitude, mood, and behavior, and that there is a strong link between our physiological state, our emotional state, and the physical environment.*
- ***Responding*** *by designing and maintaining supportive and healing environments for trauma-experienced residents or clients to resist re-traumatization.*

SAMHSA's design guidelines and recommendations for trauma-informed care design focus on 1) aesthetics; 2) spatial layout; 3) visual interest; 4) color; 5) furniture; 6) lighting/daylighting; 7) plants; and 8) art. SAMHSA has also described what each focus of design implies.

1. **Aesthetics**

- *Facilities need to be aesthetically pleasing – not institutionally sparse – but visual complexity should be kept to a minimum*
- *Visual complexity reduces a service environment's attractiveness. Visual complexity was determined by factors such as the irregularity, detail, dissimilarity, and quantity of objects; the asymmetry and irregularity of their arrangement; and the variations in color and contrast.*
- *Research has shown that an agency that was perceived as pleasant, beautiful, well kept, above average, neat, calming, efficient, etc., was considered more professional, believable, and offering a higher level of customer service in handling a customer complaint than one which was perceived as disorganized, unpleasant, etc.*
- *Staff and volunteers should avoid clutter, piles of paperwork or other stacks of boxes or supplies that may prove distracting or irritating to residents or clients.*

2. **Spatial Layout**

- *Social density is measurable. Crowding is an emotional response to density.*
- *How space is laid out can have a significant impact on individuals' perception of space, and have a profound impact on mood and behavior.*
- *If space is perceived as open, with clear sightlines and few barriers, it will increase the sense of safety as well as that of "spatial availability," which mitigates perceived sense of crowding. Simple, linear and easy to navigate space is calming.*
- *Emphasis on personal space, i.e. individual chairs with arms, choices in where/with whom to sit, quiet areas vs. engaged areas, etc.*

3. **Visual Interest**

- *Regularity, detail, similarity, an appropriate quantity of objects, the symmetry and regularity of their arrangement, and coherent variations in color and contrast.*
- *Can serve as a distraction from perceived crowding and stress.*
- *A land or waterscape painting that can serve as a connection to nature is calming.*
- *Sight lines should be unobstructed as much as possible to reduce perceived crowded and stress. Too much visual complexity can increase stress and anxiety.*

4. **Color**

- *Avoid deeply hued warm colors (i.e. red, orange, yellow) that may arouse negative emotions.*
- *Cool colors (i.e. blue, green, purple) have a calming effect.*

- *Lighter-colored rooms are perceived as more open, less crowded ("spatially available"), and thus safer and more calming.*
- *Avoid the use of arousing colors in confined spaces to help reduce feelings of crowdedness. Avoid stark white walls.*

5. **Furniture**

- *Durable and easy to clean.*
- *Arrangement of furniture needs to be considered for how it affects residents' sense of safety, perceived crowdedness, and relationship to staff (e.g., communicative or authoritative).*
- *Sitting face-to-face across a desk or table may be perceived as confrontational, whereas sitting corner to corner invites conversation and interaction.*
- *In waiting or common areas, orient seating so users are facing out from sheltering walls.*
- *Seating can be arranged to increase socialization, which can be a challenge for homeless individuals but is mentioned in research as an important benefit of being in a shelter, and a means of developing social networks to support transitioning into more permanent housing.*
- *Allowing residents to rearrange a chair or other small pieces of furniture enhances their sense of control and independence.*
- *Natural materials and colors increase connection to nature and a sense of calm.*

6. **Lighting/Daylighting**

- *Rooms with more natural light appear less crowded.*
- *Rooms with window space (even if blinds are closed) can make a space appear less crowded and more spatially available.*
- *Quality of light, i.e. color temperature and CRI, impacts mood and behavior.*
- *Lower levels of illumination also can mitigate perceived crowding and the resulting sense of stress and discomfort.*
- *Lighting should not buzz, hum, or flicker.*
- *Giving residents control over task lighting, such as a reading lamp, enhances their sense of independence and autonomy.*

7. **Plants**

- *Are decorative and beneficial to guests and staff.*
- *Research shows that settings that include vegetation reduce stress, promote peace, tranquility, enhanced self-esteem, and a sense of mastery of the environment.*
- *Plants perform an important biophilic function by connecting occupants to the natural world, which has been found to reduce stress and pain, and to improve mood.*

- *Views of nature and landscape paintings, as well as indoor plants, are all associated with increased positive affect and comfort.*

8. **Art**

- *Adds visual interest*
- *Can create a visual distraction that alleviates stress, improves mood, comfort, and customer satisfaction.*
- *Landscape paintings are all associated with increased positive affect and comfort, and doubles as a natural view.*
- *Attention should be paid so that the art does not convey meaning or symbolic significance that would generate or arouse negative feelings.*

Tenets of Trauma-informed Care

Tenets of trauma-informed care have evolved from a greater realization and understanding that trauma in the lives of persons experiencing homelessness may have resulted from incidents experienced in childhood or throughout the lifespan, events leading up to homelessness, and experiences while homeless. Also, there is greater recognition that homelessness in itself is a traumatic experience and that persons experiencing homelessness are living in a constant state of survival.

Staff who provide assistance in shelter systems of care have become increasingly aware of the past and present trauma that is affecting the ability of persons experiencing homelessness to achieve a permanent housing outcome and well-being. However, they may not have all the training and expertise in order to offer the level of trauma-informed care to help homeless persons achieve a permanent housing outcome and well-being.

SAMHSA has developed a framework for understanding trauma and developing a trauma-informed approach for behavioral health specialty sectors that can be adopted to help increase trauma-informed care shelters. The framework integrates three significant threads of work, which are "trauma focused research work; practice-generated knowledge about trauma interventions; and the lessons articulated by survivors of traumatic experiences who have had involvement in multiple service sectors."

SAMSHA's work generated the following definition of trauma:

Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being.

SAMHSA's concept of a trauma-informed approach is grounded in a set of four assumptions and six key principles.

Four assumptions

The four assumptions have helped a propelled a growing number of organizations and service systems to explore ways to make their services more responsive to people who have experienced trauma. A program, organization, or system that is trauma-informed:

1. Realizes the widespread impact of trauma and understands potential paths for recovery;
2. Recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
3. Responds by fully integrating knowledge about trauma into policies, procedures, and practices; and
4. Seeks to actively resist re-traumatization.

The four assumptions are described in SAMHSA's report on pages 9 and 10.

Six Key Principles

SAMSHA noted that

A trauma-informed approach reflects adherence to six key principles rather than a prescribed set of practices or procedures. These principles may be generalizable across multiple types of settings, although terminology and application may be setting- or sector-specific.

The six key principles are listed below and described in SAMHSA's report on page 11.

1. Safety;
2. Trustworthiness and Transparency;
3. Peer Support;
4. Collaboration and Mutuality;
5. Empowerment, Voice, and Choice; and
6. Cultural, Historical, and Gender Issues.

SAMHSA's concept of a trauma-informed approach is also grounded in "change at multiples levels of an organization and systematic alignment with the six key principles described above.

The guidance provided for change at multiple levels of an organization was provided within 10 Implementation Domains that are listed below and described in SAMHSA's report on pages 12 – 14.

1. Governance and Leadership;
2. Policy;
3. Physical Environment;
4. Engagement and Involvement;
5. Cross-Sector Collaboration;
6. Screening, Assessment, Treatment Services;
7. Training and Workforce Development;

8. Progress Monitoring and Quality Assurance;
9. Financing; and
10. Evaluation.

Conclusion

It is time to realize that 1) many homeless persons are not willing to live in large open spaces for long periods of time with many people they do not know and some that they may know but do not trust and a few that they fear; 2) for a significant number of homeless persons, living on the streets in survival mode is the preferred choice over living in a shelter that is not trauma-informed; and 3) the physical and social environment of homeless shelters can contribute to traumatizing and re-traumatizing experiences to shelter residents.

Trauma-informed shelters can eliminate many of the reasons why persons living homeless on the streets refuse to live in a shelter. The reasons stem from traumatizing experiences and concern of being re-traumatized. Traumatizing experiences for persons living homeless are the result of physical and emotional abuse that can create or further mental health issues, such as depression, anxiety, and substance abuse problems. Their injuring experiences are often compounded by chronic health illnesses such as arthritis, asthma, cancer, chronic obstructive pulmonary disease and diabetes, and permanent physical disabilities.

Homelessness is in itself a traumatic experience. In fact, many persons experiencing homelessness are likely suffering the effects of cumulative traumatic experiences lived in childhood or throughout the life span, which also includes events precipitating or leading up to homelessness. The cumulative effect of traumatic experiences has left many a person languishing and coping with life on the streets and in a constant state of survival.

Merely creating conventional shelters will minimally reduce the number of homeless persons who are languishing on the streets.

Substance Abuse and Mental Health Services Administration (SAMHSA); Trauma-informed Care in Behavioral Health Services.

SAMHSA's Trauma and Justice Strategic Initiative; SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach.

Designing for Healing Dignity & Joy

Promoting Physical Health, Mental Health, and Well-Being Through Trauma-Informed Design

Shopworks Architecture

Group 14 Engineering

University of Denver
Center for Housing and
Homelessness Research

Acknowledgments

Thank you to our community partners, particularly the residents who shared their time and insights and opened their homes to us: Housing Catalyst and Redtail Ponds; The Delores Project and Arroyo Village; and the St. Francis Center and St. Francis Apartments at Cathedral Square. We also thank our funders—Energy Outreach Colorado, Gary Community Investments, and the members of the Housing and Homelessness Funders Collaborative—whose generosity made this research possible. We extend our gratitude to the people and organizations who have contributed to our understanding of trauma-informed design, including Florida State University Professor Jill Pable, founder of Design Resources for Homelessness; Raul Almazar, a senior consultant at the SAMHSA National Center for Trauma-Informed Care; Enterprise Community Partners and Cultural Resilience Program Director Meghan Venable-Thomas; the Corporation for Supportive Housing; the National Equity Fund; Colorado Health Foundation; Housing Now Colorado; and the Mental Health Center of Denver.

Designing for Healing, Dignity, & Joy

Promoting Physical Health, Mental Health, and Well-Being Through a Trauma-Informed Approach to Design

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It's Time for a Trauma-Informed Approach to Design

When we started designing The Delores Project shelter and The Delores Apartments at Arroyo Village, we attended a training on the importance of trauma-informed care in engaging shelter guests. We learned that most adults have experienced childhood trauma, that many residents of the buildings we design have experienced substantial trauma throughout their lifetimes, and that trauma can have lifelong physical and mental health consequences and multi-generational effects—changing the brain and how we view and respond to the world around us.

We also learned that the negative effects of trauma can be mitigated. For us, this understanding sparked a revelation: ***We have a responsibility to not just design housing, but housing that promotes healing and well-being.***

As we've expanded our work building housing for vulnerable populations, we have sought to better understand how traumatic experiences shape residents' needs and to apply a trauma-informed lens to design from the get-go. Here we share some of what we've learned and propose a preliminary framework for trauma-informed design practice and process.

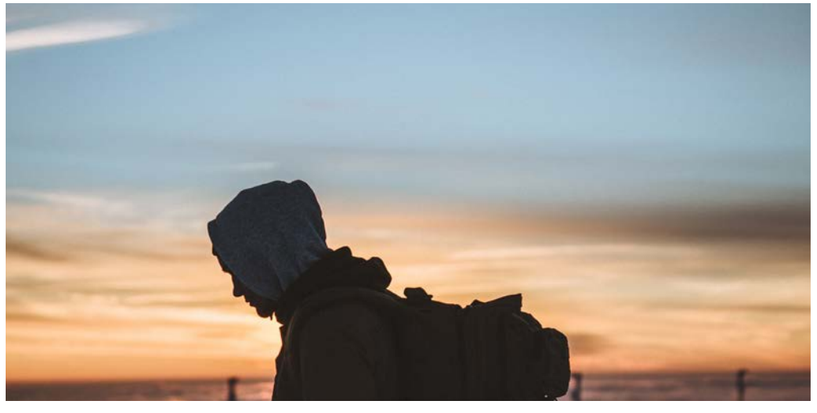
Our aim is to create greater awareness of and interest in the potential for our work—as architects, designers, engineers, developers, nonprofits, and others creating housing—to not just shelter people but to also promote healing, dignity, and joy through a built environment in which all people can thrive. ***We invite you to join us in this work.***

Trauma is a leading health concern in the U.S., where 61% of adults have had at least one adverse childhood experience (ACE)—a potentially traumatic event that occurs during childhood (Centers for Disease Control and Prevention [CDC], 2019). ACEs include abuse and neglect, growing up in a family with substance use or mental health problems, economic hardship, or parental divorce or separation, among others (Felitti et al., 1998), and the more ACEs one has, the greater the potential effect on health and well-being.

Although experiences with and responses to trauma are highly variable and aren't necessarily harmful (Center for Substance Abuse Treatment, 2014), ***traumatic stress can be toxic, altering brain development and affecting a variety of physiological systems.***

For example, trauma can make the brain less responsive to rewards, which can, in turn, increase risk of addiction and obesity (Biological Psychiatry, 2015; USC Suzanne Dworak-Peck School of Social Work, 2017). Trauma can also trigger flight, fight, or freeze responses that can become a recurring pattern (Kozlowska et al., 2015) lasting years or even decades and affecting memory, concentration, and other physical, emotional, and cognitive processes (Mayo Clinic, n.d.). Thus, trauma is linked to a host of adverse outcomes, including chronic health problems such as asthma and diabetes in adulthood (CDC, 2019). Additionally, 5 of the top 10 leading causes of death in the U.S. are linked to childhood trauma (CDC, 2019).

Trauma is a nearly universal experience of people with mental health and substance use disorders, those who have experienced violence (SAMHSA, 2014), those living in poverty (Collins et al., 2010), and those who have experienced homelessness (Hopper et al., 2010)—the very people likely to be served by shelters, supportive housing, and affordable housing.



5 of the top 10 leading causes of death in the U.S. are linked to childhood trauma.

Maslow's Hierarchy of Needs

Because of its prevalence and the significance of related physical and mental health outcomes, trauma is a critical consideration for design of all housing types—and for shelters and supportive housing in particular. But addressing trauma isn't just the responsibility of individuals and the services that walk beside them. An effective response demands participation from the broader community and public (SAMHSA, 2014), including architects, designers, engineers, developers, and all others involved in building housing.

As damaging as trauma can be, healing and recovery are possible. But for healing to happen, the housing we build can't simply prioritize physiological or safety needs (Maslow, 1943). With a holistic, user-centered, trauma-informed approach to design—one that attends to higher-order needs such as love and belonging, esteem, and self-actualization (Maslow, 1943)—we can not only prevent and mitigate further harm but actually promote healing.

Learn More:
Watch pediatrician Nadine Burke Harris's TED Talk on
"How Childhood Trauma Affects Health Across a Lifetime"
Scan code or go to www.ted.com/speakers/nadine_burke_harris_1

Early Examples of Trauma-Informed Design

A small number of architects, designers, and trauma experts have already embarked on this work, and early examples are promising. In Colorado, for instance, the Mental Health Center of Denver's Sanderson Apartments (designed by Davis Partnership Architects) was among the nation's first trauma-informed supportive housing communities. Opened in 2017, Sanderson provides 60 apartments for individuals and couples who have experienced chronic homelessness. According to JoAnn Toney, the center's director of residential services, "We know in our residential programs that if we practice good trauma-informed care … there is better engagement, people stay longer, and there are better outcomes" (Enos, 2017).

Sanderson has been followed by several similarly trauma-informed supportive housing developments in Colorado, including the Delores Apartments at Arroyo Village and St. Francis Apartments at Cathedral Square. Our own exploratory research (see pg. 14) on the experiences of residents at some of these developments has shown that trauma-informed design has supported residents' physical and mental health and well-being.

These outcomes matter. The U.S. currently spends more than $4 billion on homelessness (Council of Economic Advisors, 2019) and more than $100 billion on trauma-related health conditions each year (CDC, 2019). We believe that trauma-informed design of housing—from shelters to market-rate apartments—holds promise for reducing trauma-related costs and interrupting the intergenerational transmission of trauma and its adverse outcomes.

As an industry whose work directly or indirectly impacts virtually everyone in the U.S., we have an onus to act—to ensure that we're creating buildings and communities that contribute to prevention and healing and prioritize the physical and mental health and well-being of residents and the larger community.

Warm wood tones and joy-inspiring colors were used in the lobby and amenity areas at the Sanderson Apartments. (Photos courtesy of Davis Partnership Architects and Mental Health Center of Denver)

Establishing a Trauma-Informed Design Framework

Although there is no broad consensus on what trauma-informed design is and relatively little evidence to indicate how it should be implemented in process and practice, most conceptualizations are based on trauma-informed care guidelines developed by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014). Jill Pable, founder of Design Resources for Homelessness, has suggested a definition of trauma-informed design that adapts Hopper and colleagues' definition of trauma-informed care:

> Trauma-informed design encompasses adaptations in the designed built environment that support "a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment." (Hopper et al., 2010, p. 133; J. Pable, personal communication, October 7, 2019)

At the broadest level, trauma-informed design aims to promote healing and improved physical health, mental health, and overall well-being of individuals and their communities.

Learn More:
Design Resources for Homelessness provides a list of architectural ideas to support specific health, mental health, and well-being outcomes, as well as case studies from completed projects.
Scan code or go to www.designresourcesforhomelessness.org

Core Values

Informed by Pable's "six human qualities that most people desire for physical and mental health in the places they inhabit" (Design Resources for Homelessness, n.d., p.1) as well as our work with residents and practitioners in affordable housing, we have arrived at a set of core values that must be prioritized during the design process by all members of the housing team.

Hope, Dignity, and Self-Esteem
We celebrate each individual's inherent worth, communicating positivity, emphasizing strengths, and maximizing potential.

Connection and Community
We create spaces that encourage camaraderie and collaboration—among residents as well as between residents and staff—and offer the opportunity to belong, helping residents to rebuild relationships built on trust.

Joy, Beauty, and Meaning
We honor culture and identity while creating spaces that spark and nurture imagination, hope, and aspiration.

Peace of Mind
We cultivate a comfortable, calm ambiance that supports relaxation, self-soothing, stress management, and coping through design details such as lighting, sound mitigation, natural elements, and access to nature.

Empowerment and Personal Control
We encourage individual agency, welcome self-expression, and offer choices for residents.

Safety, Security, and Privacy
We understand that residents' perceived safety is just as important as actual safety. We prioritize clear wayfinding, sight lines, and boundaries; minimize negative triggers; offer vantages of both prospect and refuge and paths of retreat; and recognize the role of program staff in creating a sense of safety and security.

The 3 C's of Designing for Health and Healing

From the core values that guide our trauma-informed design approach, we've operationalized three key concepts of trauma-informed design—the "3 C's"—to extend our work to the higher-level needs on Maslow's hierarchy and shift from providing housing to promoting healing:

1 **Choice**
Emphasizes individual access, agency, and ownership; describes elements of personalization (e.g., color selection or furniture arrangement) and level of resident engagement with the space (e.g., choosing between relaxing in a community space or in one's own apartment)

2 **Community**
Responds to the ways that residents may engage—with staff, other residents, and guests—through placement and design of programmatic spaces, office spaces, and public gathering spaces that facilitate relationship-building

3 **Comfort**
Includes aspects such as the quality and variety of materials; sensory experiences of light, sound, and smell; and elements such as nature and artwork that bring calm or spark joy

Together, these core values and key concepts frame the intent of the trauma-informed design process and influence design decision-making across all building systems and features—from natural elements and access to nature, to safety and security, to circulation and wayfinding, to light and color, to flexibility and scale.

Our Exploratory Study of Trauma-Informed Design

To better understand how residents experience buildings designed with a trauma-informed approach, in summer 2019, Shopworks Architecture, Group14 Engineering, and the University of Denver Center for Housing and Homelessness Research began gathering exploratory data from staff and residents of three recently completed affordable housing communities in Colorado: Housing Catalyst's Redtail Ponds (Fort Collins supportive housing designed by Studio Completiva), the St. Francis Center's St. Francis Apartments at Cathedral Square (Denver supportive housing designed by Humphries Poli Architects), and The Delores Project and Delores Apartments at Arroyo Village (Denver shelter and supportive housing designed by Shopworks Architecture).

We gathered data from observational tours, resident and staff focus groups, and resident surveys. Resident demographic characteristics varied, but most residents reported having experienced homelessness. A majority of residents said they preferred to relax and socialize in their own apartments and felt safest there. Noise was a common concern at two sites, and residents in all three buildings expressed a desire for more control over lighting—including natural and artificial light—in common areas and apartments.

Notably, we learned that residents preferred public spaces that were in proximity to staff and that amenity spaces without a staff presence were underused. Staff are critical to creating a sense of community—facilitating relationship- and trust-building among residents. This finding has important implications for both building and program design.

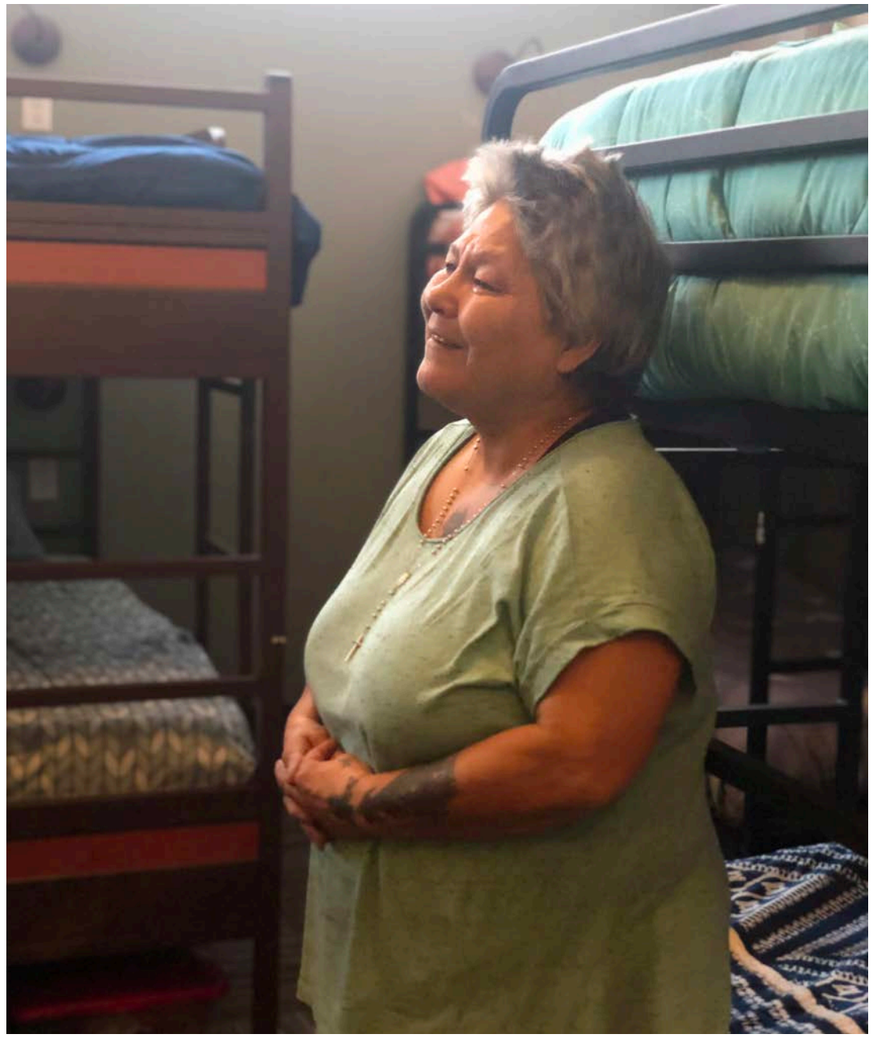
Across all three communities, most respondents said they felt safe, they had a personal connection to other residents, and that they felt healthier than before they moved in—primary aims of trauma-informed design.

Because the three buildings studied vary in design and programming features, much of the resident feedback was related to specific features. We're using study findings to inform our work on other housing developments and shape our feedback on national building standards.

Key Takeaway: Amenity areas for residents need to feel safe to residents. Locate amenity areas close to staff offices to help build connections among residents and between residents and staff.

"It's been six months, and I really have gotten used to my home. I'm able to relax here in a way I haven't relaxed in a while … This is home. This is my home. I couldn't have gotten a better view; I couldn't have gotten a better apartment. It's my world."

Sandi Barros, Resident of the Delores Apartments at Arroyo Village



Biophilia describes the human need to interact with nature, and that interaction provides a range of physical and mental health benefits, including reduced stress, better sleep, lower blood pressure, and improved immune function. The central courtyard provides outdoor space for gathering and gardening at **Arroyo Village**, a homeless shelter, supportive housing, and affordable housing apartment building designed by Shopworks Architecture in Denver, Colorado.

Flexible, light-filled interior spaces surrounding the courtyard invite the outdoors in and offer residents both prospect and refuge. Color and artwork create a welcoming, joyful atmosphere infused with culture, meaning, and memory through incorporation of quilts (a Delores Project tradition) and quilt-inspired design elements.

Photos by Matthew Staver (top, bottom) and Ben Eyster (left, middle)

At the **Karis Apartments**—supportive housing for youth experiencing homelessness in Grand Junction, Colorado, designed by Shopworks Architecture—a soaring atrium reflects residents' possibilities and potential, infusing the space with a sense of awe and aspiration. Wood and other natural elements ground and warm the space. Rather than reinforcing us–them power dynamics with a traditional reception desk, Karis features a café-style lobby where residents can interact casually and authentically with staff at the heart of the building or tuck into a cozy alcove. The main stairway opens into the lobby, corridors are short and wide with clear sight lines for resident safety, and each department has an easy connection with the central space so youth always feel close to people who care.

Renderings by Shopworks Architecture (left, top) and Flow Design Collaborative (bottom)

Because our research has shown that laundry spaces and trash collection areas can be triggering for people who have experienced homelessness, and because residents fear that their clothes may be stolen if left unattended, **The Elisabetta** rethinks the typical "afterthought" laundry space. We prioritized laundry, creating a beautiful, spa-like space that fosters community as residents gather to talk, listen, and laugh—or just relax—as they do laundry. Operated by Laradon, this mixed-use project designed by Shopworks Architecture in Denver, Colorado, includes low-income housing, apartments for residents with disabilities, and a day program for people with intellectual and developmental disabilities. Larger family units face a central courtyard where kids can play safely, and each floor of the building offers a different experience: fitness, library, or lounge.

Photos by Matthew Staver

We Must Retool The Design Process

Practical considerations such as budgetary constraints, zoning requirements, and building best practices typically drive the housing design process.

Although these factors remain relevant, a trauma-informed approach to design elevates other contextual considerations—particularly the resident experience—to create a holistic framework for prioritizing design decisions, especially at the outset.

As we've observed, a trauma-informed approach to housing design can improve the design decision-making process—and ultimately resident outcomes—without increasing the cost or complexity of a building.

Understanding & Establishing Context

From day-one of the trauma-informed design process, we must consider the context of future residents (particularly their experiences with trauma), the programs and systems they interact with, the community in which they reside, and the environment in which they're located..

Cultural Context
Culture forces are complex, dynamic, provide identity and tie communities to their environment.

Environmental Context
Environmental forces not only include the climate and land on which the community resides, but also includes: historical contexts, economic contexts, and the systems / institutions they interact with.

Lived Experiences
A multi-layered, series of opportunities and obstacles that shape both individual and community perceptions of the world around them.

Tips for Success

- Gather feedback from stakeholders throughout the process.
- Seek the help of professional facilitators to navigate power dynamics and program evaluators to help organizations understand and anticipate needs.
- Enlist help from the research community to incorporate evaluation of short- and long-term indicators of individual and community physical and mental health and well-being.
- Seek to understand what worked and what didn't from a trauma-informed perspective; apply that knowledge to future work and share it within your field / industry.

The housing team must take into account the unique community a specific building is designed to support, and the neighborhood and culture it will be a part of. It is critical to listen to those with lived experience, potential residents, and community members to hear what will be healing for them. Follow their vision and hopes to ensure the built design truly helps individuals move toward health and resilience.

It is critical in trauma informed design that those with lived experience are interviewed and brought into the design conversation from day one. We have found it helpful to host a conversation at a local service provider and ask a variety of questions to ensure we are not making assumptions about individual's lived experience, what they connect to in their community, and what support has helped them heal to ensure those same supports are possible in the building you design.

Questions for the housing team to consider:

- What are the lived experiences of the population, both staff and residents, that the building will serve?
- How do we design for the real and perceived safety of all residents, considering their past experiences with trauma?
- What assumptions, stereotypes, and biases influence your understanding of the target population and the community (internal and external)?
- What are the identities, culture, traditions, and history of the target population, the community, and the land on which they reside?
- What systems and institutions intersect with and influence the housing development, either directly or indirectly? Are there amenities nearby?

Questions to ask potential residents:

- What makes this neighborhood/community unique?
- What do you love about this city/community/neighborhood?
- What has helped you heal?
- When you think about your first day in a new apartment, what does that look like?

Because there is no singular "trauma experience," we must revisit these questions and the building context for each and every housing development and do so in collaboration with the target population and larger community throughout a building's planning, design, and construction. Even among a specific population (e.g. veterans experiencing homelessness) the neighborhood and community they are a part of will impact how they experience certain spaces.

Trauma-Informed Design Framework

Core Values

Hope, Dignity, and Self-Esteem
We celebrate each individual's inherent worth, communicating positivity, emphasizing strengths, and maximizing potential.

Connection and Community
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Empowerment and Personal Control
We encourage individual agency, welcome self-expression, and offer choices for residents.

3 C's / Key Concepts

With each design decision, the housing team should ask:

- Is this giving the residents and staff **choice?**
- Is this helping to create **community** among residents, and between residents and staff?
- Are we creating **comfort** for residents—does this bring calm or spark joy?

Context

Throughout the design process, the housing team should seek to understand the **cultural and environmental context** through direct conversations with those with **lived experiences** of homelessness and trauma.

Trauma-Informed Design Process

The traditional design methodology is a natural fit for a trauma-informed process that purposefully and thoughtfully engages the target population, community, and intersecting systems and organizations early.

Goal-Setting & Agreement
A trauma-informed design process must be trauma-informed at the outset: Physical and mental health and well-being outcomes must be a shared priority. Agreeing on goals and developing a project mission statement can be a great place to start (Enterprise Community, n.d.).

Research & Discovery
A trauma-informed process seeks to understand and anticipate program needs as well as the lived experience, identities, culture, traditions, and history of the target population and community. Get feedback from future residents, and identify and interrogate the assumptions, stereotypes, and biases of stakeholders.

Collaboration
Invite the target population and the broader community into the project, creating and facilitating meaningful opportunities for collaboration and engagement that can help you deliver on your mission and goals. Think about how you might weigh competing priorities or needs, such as those suggested by staff and those suggested by residents: Are marginalized voices truly being heard in the process?

Evaluation
Weigh features and costs against trauma-informed decision-making criteria and desired outcomes. Competing priorities can be expected, but evaluate all decisions through a trauma-informed lens: For instance, how do materials, the placement of windows and doors, the type and location of amenities, and the scale of rooms and buildings impact experiences of light, sound, smell, and human interaction inside and outside the space?

Shifting the Focus From Housing to Healing

By prioritizing the physical and mental health and well-being of residents and the larger community, our work has the potential to interrupt cycles of poverty and trauma, ultimately improving the lives of individuals, strengthening communities, and reducing costs. But how do we get there from here?

We've proposed a starting place, but more work is needed to develop an effective, evidence-based, trauma-informed approach to design practice and process. To move ahead, we need:

- **Ongoing empirical research** into the short- and long-term outcomes of trauma-informed design across a range of domains (e.g., physical health, mental health, socioeconomic status)
- **Further exploration, testing, and refinement** of the preliminary trauma-informed design framework and development of trauma-informed design process and practice guidelines
- **Deeper insights into funding and policy implications** and development of incentives and funding mechanisms for housing that implements trauma-informed design

These answers won't come quickly, but our work building housing can't wait. Given the individual and collective toll of trauma, the public resources already allocated to housing, and the even greater unmet need, we feel an urgency to act, evolving and refining the trauma-informed design approach as we go along.

Most immediately, our industry must begin developing a formal set of best-practice guidelines in trauma-informed design. We need to introduce education about trauma into college and university curricula and develop continuing-education opportunities in trauma-informed design. And we must broadly share what we know—including developing case studies of what has worked, what hasn't, and why.

A larger challenge is prioritizing the trauma-informed approach and ensuring that as we strive to meet the vast need for housing, we don't miss the opportunity to do more than simply provide square footage.

We must be particularly thoughtful about space, creating wider hallways but smaller apartments, for example, or offering more flexible shared spaces instead of apartment balconies. Ultimately, we believe prioritizing trauma-informed design decisions will result in better resident outcomes and lower associated costs in areas such as health care utilization or criminal justice involvement.

Shifting our focus from housing people to healing people—and ultimately to promoting dignity and joy through a built environment in which all people can thrive—will be required at all levels, from service providers to policymakers.

As designers of the built environment and stewards of the precious public resources allocated to do so, we must elevate our thinking and center human experience in our own work.

"Man, I have gone from bed bugs to honey bees!"

Patrick, Resident Sage of Providence at the Heights

Keep the Conversation Going

Addressing trauma is not just the responsibility of individuals and the services that walk beside them. An effective response to trauma demands participation from the broader community and public, including all those involved in building housing. Learn more about trauma-informed design and share this paper with your colleagues, clients, and professional organizations.
www.shopworksarc.com/tid

Additional Resources

The Enterprise 2020 Green Communities Criteria for integrative and healing-centered design provide excellent guidance for implementing for a trauma-informed design process. **www.greencommunitiesonline.org**

The WELL Building Standard (v2) provides detailed guidance on both process and features that support health, mental health, and well-being outcomes.
v2.wellcertified.com

Design Resources for Homelessness provides a list of architectural ideas to support specific health, mental health, and well-being outcomes, as well as case studies from completed projects. **designresourcesforhomelessness.org**

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The goal of trauma-informed design is not to just shelter people, but to also promote healing, dignity, and joy through a built environment in which all people can thrive.

We invite you to join us in this work.

www.shopworksarc.com/tid

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BMC Public Health

RESEARCH ARTICLE Open Access

Recognizing and responding to women experiencing homelessness with gendered and trauma-informed care

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Abstract

Background: The purpose of this study is to highlight the experiences of women who are often hidden in what we know and understand about homelessness, and to make policy and practice recommendations for women-centred services including adaptations to current housing interventions.

Methods: Three hundred survey interviews were conducted with people experiencing homelessness in Calgary, Alberta, Canada. The survey instrument measured socio-demographics, adverse childhood experiences, mental and physical health, and perceived accessibility to resources. Eighty-one women participants were identified as a subsample to be examined in greater depth. Descriptive statistics and logistic regressions were calculated to provide insight into women respondents' characteristics and experiences of homelessness and how they differed from men's experiences.

Results: Women's experiences of homelessness are different from their male counterparts. Women have greater mental health concerns, higher rates of diagnosed mental health issues, suicidal thoughts and attempts, and adverse childhood trauma. The results should not be considered in isolation, as the literature suggests, because they are highly interconnected.

Conclusion: In order to ensure that women who are less visible in their experiences of homelessness are able to access appropriate services, it is important that service provision is both gender specific and trauma-informed. Current Housing First interventions should be adapted to ensure women's safety is protected and their unique needs are addressed.

Keywords: Women, Mental health, Addiction, Trauma-informed care, Homelessness

Background

While women made up 27% of the Canadian homeless population in 2016, 89% of families in shelters were found to be headed by women [1]. Homeless women are considered "one of the most vulnerable subpopulations among the homeless," [2] which is attributable to many interrelated factors such as a shortage of women-centred services [3], women's vulnerability to violence, exploitation and marginalization [4], and higher rates of poverty [5] often lacking the necessary resources when escaping violence. Evidence suggests that women are largely underrepresented in homeless counts as they are less visible in their experiences of homelessness [6, 7], .Women often seek shelter in "non-service-led situations" such as sleeping rough, couch surfing or staying in unsafe housing [8]. It has been suggested that women experience both "spatial and policy invisibility," [9] and as a result are less likely to be effectively served by conventional health and social services. One study identified that "women as a homeless population have conventionally been left out of societal discourse, public policy, and research agendas, thereby affecting funding priorities and the development of service delivery models." [7] Evidence also shows that without appropriate interventions, women have a high likelihood for multiple episodes of homelessness [10].

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Housing First is an intervention that provides affordable housing and case management services and has been identified as a 'best practice' intervention that can sustainably end homelessness for people with complex physical and mental health issues. However, in a Canada wide research study to determine its effectiveness, "the 'typical' participant was a male in his early 40's…" [11]. This research team concluded that further research is needed to determine how to adapt the model for particular sub-groups including women.

Much of the homelessness literature indicates that homelessness for women is unique from men's experiences as women's experiences are governed by oppression, gender inequality, and stigma [7, 12]. For instance, women are particularly vulnerable to victimization and are at higher risk for physical and sexual violence while living on the streets or in shelters [9, 13, 14]. Furthermore, intimate partner violence is a common path into homelessness for women [7, 12] as a lack of affordable housing in Canada and limited financial and social resources often require women to choose between staying with their abusive partner and falling into homelessness [15]. Adverse childhood experiences have been associated with concurrent mental health concerns and substance use disorders [16], frequent health care use in adulthood [17], and poor physical and mental health outcomes [18]. Physical and sexual abuse during childhood has been found to be particularly prevalent amongst women experiencing homelessness [19–21] and women disproportionately require hospital care, particularly with regards to recent violence and mental health concerns [2, 22].

Women experiencing homelessness have also been found to report high rates of gender-specific health concerns related to gynaecological health, pregnancy, feminine hygiene, and sexually transmitted infections [23, 24]. Women living on the streets are particularly vulnerable as women sleeping rough, have been found to have higher rates of poor physical and mental health issues and higher reported rates of substance use than women living in shelters [25, 26].

Women experiencing homelessness face many barriers to accessing appropriate health care services, such as long wait times, lengthy travel time, and lack of transportation [27, 28]. It has also been identified that for some women, addiction "may be overshadowing other pressing health concerns." [29] The physical, mental, and sexual health concerns of women experiencing homelessness are complex, thus indicating that it is critical to facilitate access to appropriate and safe interventions.

In order to ensure that women can easily obtain primary, preventative, and specialized health care, access to appropriate services must be facilitated through establishing gender-sensitive and trauma-informed care [29]. However, there is little pre-existing research examining the perceived need for health care services amongst women experiencing homelessness nor is there much that has focused on adverse childhood experiences and their impact on women's long-term health and social outcomes.

It is prudent to recognize the history of victimization and exploitation of women and how their experiences of homelessness are different than men. The needs of women must be addressed through homeless reduction strategies as gendered homelessness for women is gendered [7]. Strategies to address homelessness must adopt a gendered and trauma informed perspective.

The purpose of this study is to better understand if women are more likely to experience suicide attempts and/or psychiatric stays than men and if these experiences are influenced by mental illness and/or childhood trauma. Applying a gendered lens to our analysis meant we carefully and deliberately examined the data and its implications considering the different needs and experiences of women as compared to men. The following analysis will help fill existing gaps, providing insight and recommendations into how services and practices can be improved to respond to the gender and trauma specific needs of women. We posit suggestions for enhancements to homelessness interventions including Housing First programs that are reflective of and responsive to the unique needs and vulnerabilities of women.

Methods

Survey interviews were conducted with 300 people experiencing homelessness in Calgary, Canada between January and March 2017. The interview guide used some of the questions from the *Perceived Need for Care Questionnaire* [30] with some additions and adaptions thought relevant by the research team. The fulsome version of the *Adverse Childhood Experiences survey* was also used [31]. Eligibility criteria required participants to have been homeless for at least 6 months or more than four times in the last 2 years. All participants provided informed consent prior to completing the survey and received a $25 (CAD) honorarium for their time. Research was conducted primarily at two emergency shelters in Calgary, and a small group ($n = 18$) of rough sleepers were also interviewed outside. Respondents were asked a series of 88 questions regarding their sociodemographics, adverse childhood experiences (the ACE survey), mental and physical health, and access to services.

The data were inputted electronically, checked for consistency and analysed using SPSS. For the purposes of our analysis, the 81 self-identified women participants comprise the subsample of respondents examined in greatest depth. When running comparative analyses, the 217 self-identified men respondents comprised the other subsample of respondents. Remaining respondents were excluded from the analysis, as the sample size was too

small to examine independently. SPSS was then used to examine respondents' demographics, adverse childhood experiences, substance use, and mental health status. Descriptive statistics and logistic regressions (adjusted and unadjusted) provide insight into women respondents' characteristics and experiences of homelessness and how they differed from men.

Measures

Respondents were asked to report the various places that they had slept in the past 6 months. Seven of the options provided to respondents were collapsed to create the hidden homeless score variable: sleeping in friends places, sleeping in family members' places, couch surfing, sleeping in jail/prison, in hospitals, in vehicles, or walking all night. Respondents' ACE scores were scores out of 10 and were based on whether or not respondents experienced the following experiences before the age of 18: verbal, physical, sexual, and emotional abuse, neglect, abandonment, witnessing a parent being abused, if a parent struggled with addiction, if a household member had a mental health issue or attempted suicide, and if a household member went to prison. The higher the number of adverse childhood experiences the participant had prior to the age of 18, the higher the ACE score.

Respondents identified the length of time and the number of times they had been homeless in their lives (once, twice, three times, four times, five times, or more than five times). These variables provide relative measures of patterns of homelessness. The same method was used to create variables for patterns of alcohol use, six or more drinks on one occasion, non-beverage alcohol consumption, drug use, polydrug use, and using both alcohol and drugs at the same time. Each of these variables were measured based on respondents' self-report of how often each occurred: these were scored using the following scale: never, monthly or less, weekly, and daily or almost daily, which were then used to provide relative measures of substance use frequency. Respondents were asked to identify if they had any diagnosed or undiagnosed mental health issues, suicidal thoughts and attempts, and whether or not they had been in a mental health facility.

The outcome variables were selected based upon evidence that suggest these variables may impact the relationships between gender and the outcome variables of interest. For instance, an individual's age and Indigenous identity shape their experiences and their help-seeking behaviour. The length of time experiencing homelessness may impact an individual's likelihood to attempt suicide and/or stay in a psychiatric hospital. Further, mental illness diagnoses and higher ACE scores may impact an individual's likelihood to require psychiatric attention or to attempt suicide.

This study received ethics approval from the University of Calgary Conjoint Health Research Ethics Board, REB17–2064.

Results

Women were found to be significantly more likely to have stayed in a psychiatric hospital. Women were significantly more likely to have reported having suicidal thoughts in their lifetime, having attempted suicide in their lifetime, and having been diagnosed with a mental health issue. Identifying as a woman was also associated with the number of reported mental health diagnoses.

When examining associations with substance use and addiction diagnoses, women's experiences with substance use were not significantly different than men's; however, examining their substance use patterns provides insight into the consequences of use for women. The largest proportion of women reported using drugs other than alcohol daily or almost daily (37%), while 18.5% use drugs monthly or less and 13.5% reported using drugs weekly. Of those who use drugs, 71.6% reported never using more than one drug at the same time, 54.3% reported never using alcohol and drugs at the same time, while 22.2% reported doing so monthly or less, 13.6% did so weekly, and 9.8% did so daily or almost daily. Besides alcohol and marijuana, the most commonly reported substances used were crack (34.6% of respondents), cocaine (22.2%), and methamphetamines (21%). The consequences of using were notable as 60.5% of respondents had legal difficulties as a result of drinking or drug use and 49.4% reported that their drug use had hurt themselves or others. Additionally, 22.2% of women felt that their longing for drugs was irresistible daily or almost daily and 17.3% had guilty feelings or a bad conscience for using drugs.

Women reported disproportionately high levels of adverse childhood experiences, including notably higher rates of verbal and sexual abuse in childhood than men. These results are supplemental to the analysis using respondents' ACE score in Table 1 that identified the statistically significant correlation between gender and the number of adverse childhood experiences.

Table 2 shows that suicide attempts in women's lifetime and psychiatric hospital stays emerge statistically significant when controlling for age, Indigenous identity, number of times that participants were homeless, and participants' ACE scores. Women were found to be 1.82 times more likely to have attempted suicide in their lifetime [$p = 0.04$] and twice as likely to report having a psychiatric hospital stay [$p = 0.03$] in model 2 of each respective regression. When factoring in mental illness diagnoses, gender is no longer statistically significant. This suggests that women are at greater risk of staying in a psychiatric hospital and experiencing a suicide attempt not

Table 1 Systems Usage and Health Status

	Women ($n = 81$)					Men ($n = 217$)				
	Frequency	Mean	Median	Std. Dev.	Range	Frequency	Mean	Median	Std. Dev.	Range
Systems usage										
Stay in psychiatric hospital[c, b]	25 (30.86%)					41 (18.89%)				
Substance use										
Alcohol consumption frequency[d]		1.58	1.00	1.11	3.00		1.68	2.00	1.11	3.00
6+ drinks on one occasion frequency[d]		1.16	1.00	1.15	3.00		1.35	1.00	1.17	3.00
Non-beverage alcohol use frequency[d]		0.31	0.00	0.92	4.00		0.25	0.00	0.72	4.00
Drug use frequency		1.57	2.00	1.27	3.00		1.49	1.00	1.23	3.00
More than one type of drug at the same time frequency[d]		0.54	0.00	1.00	3.00		0.53	0.00	0.94	3.00
Alcohol and drug use at the same time frequency[d]		0.79	0.00	1.02	3.00		0.83	0.00	1.02	3.00
Addiction										
Diagnosed addiction in last year[c]	26 (32.10%)					50 (23.04%)				
Diagnosed addiction previous to last year[c]	18 (22.22%)					56 (25.81%)				
Undiagnosed addiction in last year[c]	11 (13.58%)					40 (18.43%)				
Undiagnosed addiction previous to last year[c]	9 (11.11%)					27 (12.44%)				
Adverse childhood experiences										
ACE score[d, b]		5.02	5.00	2.72	10.00		4.19	4.00	2.97	10.00
Mental health										
Suicidal thoughts in last year[c]	29 (35.8%)					62 (28.57%)				
Suicide attempt in last year[c]	9 (11.11%)					12 (5.53%)				
Suicidal thoughts in lifetime[c, a]	60 (74.07%)					125 (57.60%)				
Suicide attempt in lifetime[c, a]	43 (53.09%)					73 (33.64%)				
Mental health diagnosis[c, a]	51 (62.96%)					80 (36.87%)				
# of diagnosed mental health issues[d, a]		1.85	1.00	1.99	8.00		0.76	0.00	1.29	7.00

Frequencies with percentages provided in parentheses
[a]Significant at the 0.01 level
[b]Significant at the 0.05 level
[c]Independent samples t-test
[d.] Pearson's Correlation Coefficient

Table 2 Logistic Regressions

	Suicide Attempt				Psychiatric Stay			
	Unadj.	Model 1	Model 2	Model 3	Unadj.	Model 1	Model 2	Model 3
Female	2.23[a] (1.33–3.75)	1.82[a] (1.04–3.16)	1.80[a] (1.02–3.18)	1.52 (0.85–2.73)	1.92[a] (1.07–3.43)	1.94[a] (1.05–3.56)	1.95[a] (1.05–3.63)	1.45 (0.75–2.79)
Age	0.95[a] (0.93–0.97)	0.96[a] (0.94–0.98)	0.97[a] (0.95–0.99)	0.98 (0.96–1.00)	0.98 (0.96–1.00)	0.98 (0.96–1.01)	0.99 (0.97–1.02)	1.01 (0.98–1.03)
Indigenous identity	2.06[a] (1.25–3.41)	1.34 (0.77–2.33)	0.96 (0.53–1.72)	1.06 (0.58–1.94)	0.68 (0.36–1.28)	0.50[a] (0.26–0.99)	0.37[a] (0.18–0.76)	0.42[a] (0.20–0.88)
Times homeless	1.22[a] (1.08–1.38)	1.16[a] (1.02–1.32)	1.12 (0.98–1.28)	1.10 (0.96–1.26)	1.05 (0.91–1.21)	1.06 (0.92–1.23)	1.02 (0.88–1.19)	0.98 (0.84–1.15)
ACE score	1.31[a] (1.20–1.43)		1.24[a] (1.12–1.37)	1.21[a] (1.09–1.34)	1.16[a] (1.05–1.28)		1.20[a] (1.07–1.34)	1.14[a] (1.01–1.28)
Mental illness diagnosis	4.12[a] (2.51–6.75)			2.59[a] (1.50–4.47)	6.46[a] (3.42–12.20)			5.64[a] (2.82–11.26)

Odds ratios with 95% confidence intervals provided in parentheses
[a]Significant at the 0.05 level

solely due to being female, but because of the likelihood that they will receive a mental illness diagnosis.

Discussion

Our results indicate that a greater proportion of women in our sample experienced suicidal ideation and suicide attempts, childhood trauma, and stays in psychiatric hospitals when compared to male respondents. However, women did not have significantly different rates of substance use from their male counterparts. The literature suggests mental health diagnoses are more prevalent in women than men and mental illness is a significant contributor to women's homelessness [32, 33]. This is mirrored in the results where mental illness diagnoses acted as a confounding variable, thus suggesting that women are more likely to have a mental illness diagnosis. Being a woman is not statistically significant with the inclusion of a mental illness diagnosis, likely due to the higher prevalence of mental illness among women in our sample (approximately double). In other words, being a woman is not a risk to the outcome, but is highly correlated with other risk factors. Women, therefore, are much more likely to exhibit these health risks than males, implying that front-line service delivery needs respond appropriately.

Given the significance of mental illness and gender, the impact of traumatic experiences need to be considered and factored into the way we support and work with women who are experiencing homelessness.

Experiences of homelessness are gendered and females must be considered independently from their male counterparts. While it is important to consider how women's experiences of mental illness shapes their experiences of homelessness, policy makers and service providers must also recognize the ways in which gender shapes an individual's experiences of suicide and psychiatric stays. Women's higher ACE scores are indicative of both the gendered vulnerability to violence and the prevalence of trauma that women experience in their childhood [19–21]. Ensuring that services are gendered challenges traditional approaches, including many Housing First programs that are gender-neutral. Gender-neutrality is the belief that men and women are the same and therefore should be treated the same [34]. A neutral approach leads to interventions without acknowledgment that there are unique vulnerabilities and experiences associated with gender [35]. This emphasizes the importance of adapting or enhancing Housing First programs to ensure women receive trauma-informed therapeutic supports. For example, organizations that primarily support women could receive funding to implement housing programs. Alternatively, partnerships between existing Housing First programs and women-centred organizations could be facilitated to ensure that staff can provide counselling and/or referrals to trauma-informed counselling services.

As our study demonstrates that women's experiences of trauma and homelessness are closely interconnected, collaboration must also be facilitated between the trauma/violence and homeless-serving sectors [15]. This would help ensure that Housing First interventions can address the safety needs of women who are vulnerable to previous abusers who may attempt continued exploitation once women are housed.

Conclusion

This research focuses on female homelessness in order to more closely examine gendered experiences of housing insecurity and plan for both responsive and protective interventions to meet their unique needs. Women's experiences of homelessness are largely influenced by high rates of adverse childhood experiences and mental health diagnoses. This research points to the need for holistic care that addresses the social determinants of health and provides gender-specific and trauma-informed care.

Intersectoral collaboration and funding specifically for women-centred programming is necessary to bridge gaps between public systems and ensure that interventions including Housing First programs are enhanced to protect women's safety and provide therapeutic supports to deal with trauma. Future research should focus on ways to engage women who are rough sleeping and/or are staying in unsafe or temporary housing to facilitate access to Housing First programs. Future research should also assess the effectiveness of gendered and trauma-informed Housing First programs in improving women's health and wellbeing.

Supplementary information

Supplementary information accompanies this paper at https://doi.org/10.1186/s12889-020-8353-1.

Additional file 1: the adapted *Perceived Need for Care Questionnaire*. This survey was created for a study in Edmonton, Alberta but was adapted to the local context of the research site and a copy was added to the supplementary files section.

Abbreviation

ACE: Adverse childhood experiences

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Authors' contributions

K. M. was the principal investigator and led all aspects of the research project and manuscript development. N. W. was a research assistant and helped lead data collection, analysis and writing of the manuscript. S. L. L. provided editorial support and writing of the manuscript. D. J. D. provided leadership in data analysis, interpretation of the results and writing of the manuscript. E. H. provided content expertise, review of data analysis, writing of the manuscript and was the original author on the survey tool. The authors read and approved the final manuscript.

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Availability of data and materials
Data may be available by contacting the corresponding author. However, any analysis of the data would need separate ethics approval from corresponding institution and partnership with the original research team.

Ethics approval and consent to participate
Ethics approval was obtained from the University of Calgary Conjoint Health Research Ethics Board REB17–2064. All participants provided signed consent to participate.

Consent for publication
Not applicable.

Competing interests
The authors declare that the have no competing interests.

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An Introduction to Trauma Informed Care

Creating Physically and Emotionally Safe Environments for Clients, Families and Staff

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Holly Murphy, MN, RN BScN, CPMHN(c), Clinical Project Leader for Trauma Informed Care

Sue McWilliam, PhD, Evaluation and Research Leader for TIC

Trauma Informed Care Launch

February 3,4,5, 2016

IWK Health Centre

Welcome and Agenda

- Welcome! Thank you for attending!
- Introduction to Trauma Informed Care
- Creating Cultures of Trauma Informed Care
- Break
- Staff Support in Human Service Settings: An Essential Element of Trauma Informed Programs
- Moving Toward Becoming a Trauma Informed Organization
- Logo and Website Launch

Purpose of Today's Session

- To provide foundational information about Trauma Informed Care (TIC) and associated staff support as we start our 3-5 year journey toward becoming a trauma informed organization.

Objectives

- To introduce you to the key concepts and principles of trauma and trauma informed care.
- To discuss how to create a culture of trauma informed care.
- To discuss how organizations can support staff experiencing stress, burnout, and/or vicarious trauma.
- To describe specific ways in which organizational responses, professional responses and personal responses contribute to a psychologically safe and healthy workplace.
- To describe the IWK's process/plan toward becoming trauma informed.

Types of Stress

- **Positive stress**
- **Tolerable stress**
- **Toxic stress**

What is trauma?

- Definition

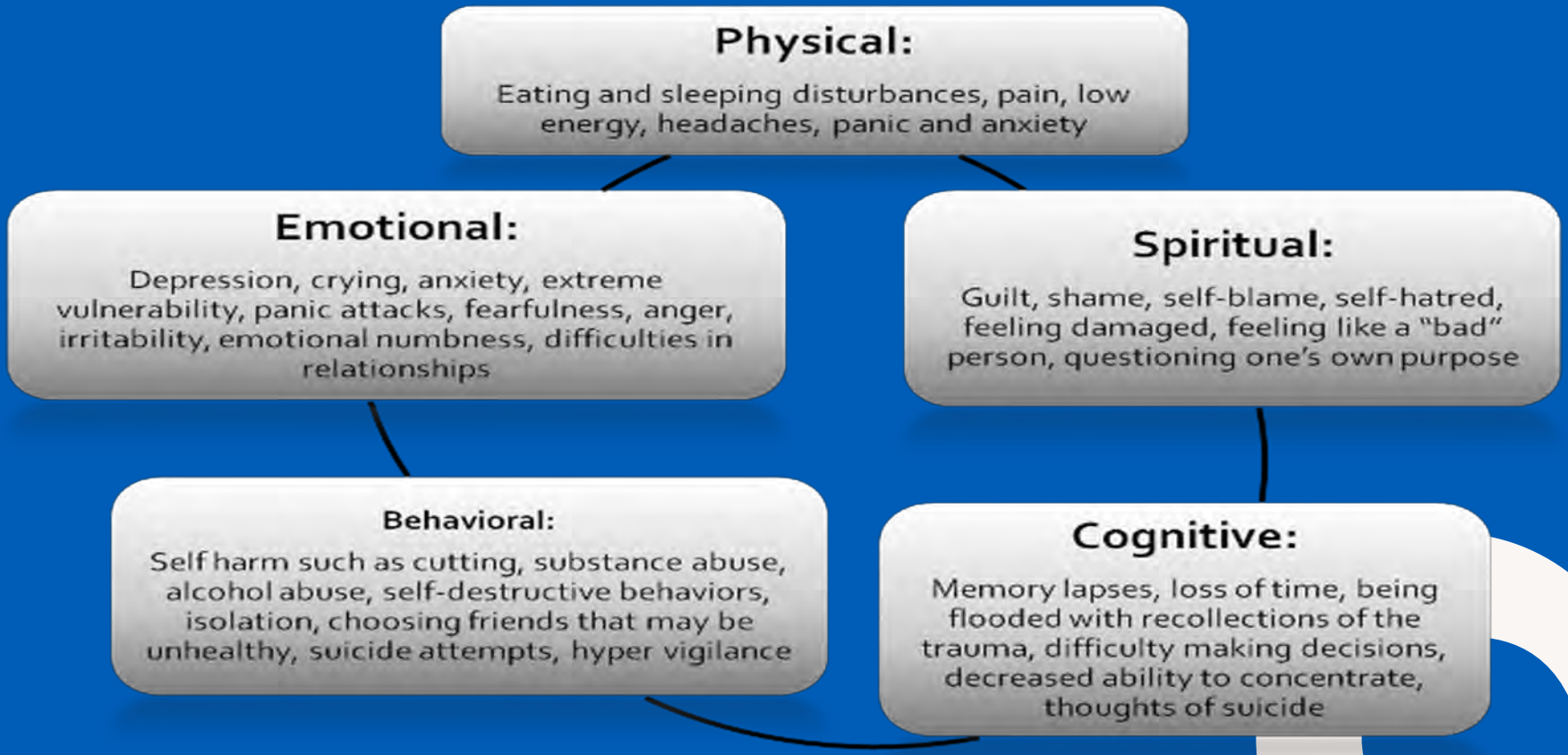
  Trauma can be anything that results from experiences that overwhelm an individual's capacity to cope. Trauma can result from abuse and neglect, family conflict, poverty, having a life-threatening illness, undergoing repeated and/or painful medical interventions, accidents, witnessing acts of violence, grief and loss, intergenerational events, etc.

  (Adapted from BC MHSU, 2013)

Some Different Types of Trauma

- **Acute trauma**
- **Repetitive trauma**
- **Complex trauma**
- **Complex Developmental trauma**
- **Vicarious trauma**
- **Cultural, historical and/or**
  Intergenerational trauma

Effects of Trauma



(Figure taken from N. Poole, Building a Trauma-Informed Practice Framework, 2014).

Resiliency and Recovery

"In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways."

Resilience Research Centre. Retrieved from: resilienceresearch.org (See also Ungar, 2008 and Ungar, 2011).

Resiliency and Recovery

https://www.youtube.com/watch?v=cqO7YoMsccU

Center on the Developing Child. Harvard University. Retrieved with permission from http://developingchild.harvard.edu/science/key-concepts/resilience/

How Common is Trauma?

- A large body of research estimates that between 55-90% of the population has experienced one or more forms of trauma in their lives (CDC & Kaiser Permanente, 1995-2011; Harris & Fallot, 2009; Farro et al., 2011).

- In a Canadian study, 76% of participants identified being exposed to at least 1 traumatic event in their lifetime (Van Ameringen et al., 2008)

- In a community-based mental health clinic in the US, researchers found that 90% of their 505 clients had been exposed to trauma (Cusack et al., 2004).

- As such, we need to presume the clients we serve and our staff members may have a history of traumatic stress and exercise “universal precautions” (Hodas, 2005)

Trauma Informed Care Definition

TIC is a strengths-based service delivery approach that is rooted in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and clients.

(Hopper, Bassuk, & Olivet, 2010)

TRAUMA INFORMED CARE (TIC)

DEFINITION

Being trauma informed is about creating safety and trustworthiness within health care practices, our physical/emotional environments and daily interactions with clients, families and staff.

PRINCIPLES

Awareness

Safety

Trustworthiness

Choice

Collaboration

Skills Building

Why We're Becoming Trauma Informed

Optimizing Patient Experience

- To be proactive, prevention focused and strengths based
- To create and sustain ingredients for Patient and Family Centered Care: choice, power and control
- To reduce the possibility of re-traumatization
- To reduce negative encounters and events (seclusion and restraint)
- To increase client and family satisfaction
- To reduce unnecessary costs and reduce the need for unnecessary interventions

Engaged Workforce

- To support engagement of the work force through support for self care
- To increase success/performance and job satisfaction
- To reduce sick time
- To reduce negative encounters and events which may lead to burn out and/or vicarious trauma.

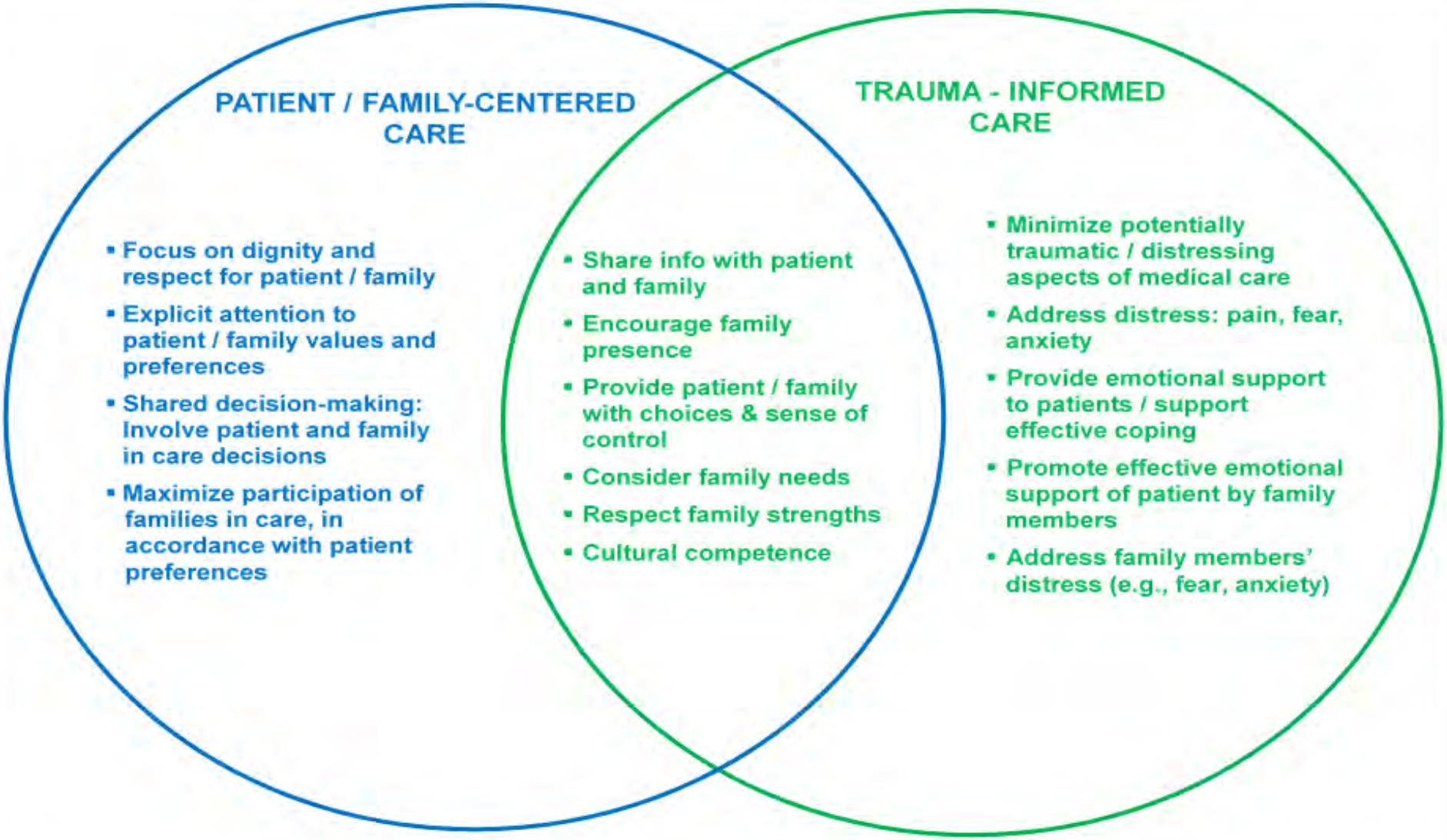
(Barton, Johnson & Price, 2009; Hodas, 2006; modified from National Council for Behavioral Health, 2013)

Evidence-Based Benefits

- Reduced trauma symptoms, drug use severity and mental health symptoms (Moses et al., 2003)
- Increased effectiveness of services – in engagement, retention, and outcomes (SAMHSA, 2011)
- Cost effective treatment (Community Connections, 2005)
- Decreased patient use of acute care and crisis services (SAMHSA, 2011)
- Increased organizational outcomes, such as: enhanced staff skills and morale; more collaboration within and outside their agencies; reduced vicarious trauma; fewer negative events
  (Hopper, Bassuk, Olivet, 2010)

(List adapted from: Trauma Matters Report, 2012)

Complimentary Approaches



www.healthcaretoolbox.org

Examples of TIC applicability

- Many medical interventions are traumatizing or re-traumatizing for clients and families.
- Recognizing the impact trauma, sexual abuse or domestic violence, can have as women experience prenatal care and child birth.
- Creating a safe and secure environment that supports disclosure of trauma.
- Recognizing the traumatic impact of seclusion and restraint.
- First contact staff
- Designing spaces that are trauma informed.

Community Connections

Creating Cultures of Trauma-Informed Care

Lori L. Beyer, LICSW

Community Connections

Community Connections

Community Connections

- Community mental health center in Washington DC
  - Serve 3000 adults, 800 children and adolescents
  - Substance addiction, homelessness, legal involvement, medical conditions
- Developed Trauma Recovery and Empowerment Model (TREM), published in 1998
- Trauma specific work led to our development of trauma informed initiative
- Consult to agencies/organizations/states all across US and in Canada

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

A Culture Shift: Scope of System Change

- Involves all aspects of program activities, setting, relationships, and atmosphere (more than implementing new services)
- Involves all groups: administrators, supervisors, direct service staff, support staff, and consumers (more than service providers)
- Involves making trauma-informed change into a new routine, a new way of thinking and acting (more than new information)

Community Connections

A Culture Shift: Changes in Understanding and Practice

- Thinking differently as a prelude to acting differently
- Thinking differently initiates and sustains changes in practice and setting
- Acting differently reinforces and clarifies changes in understanding

Community Connections

Changes in Understanding: Trauma-Informed Services

- Trauma-informed vs. trauma-specific
- Trauma-informed services:
  - Incorporate knowledge about trauma—prevalence, impact, and the diverse paths to recovery—in all aspects of service delivery and practice
  - Are hospitable and engaging for people who have experienced trauma
  - Minimize revictimization: “do no harm”
  - Facilitate healing, recovery, empowerment
  - Emphasize collaboration throughout the system

Community Connections

Changes in Understanding: Why Trauma-Informed Services?

- Trauma is pervasive
- Trauma's impact is broad and diverse
- Trauma's impact is deep and life-shaping
- Trauma, especially interpersonal violence, is often self-perpetuating
- Trauma differentially affects the more vulnerable
- Trauma affects how people approach services
- The service system has often been re-traumatizing
- Staff members are deeply affected by systemic stressors

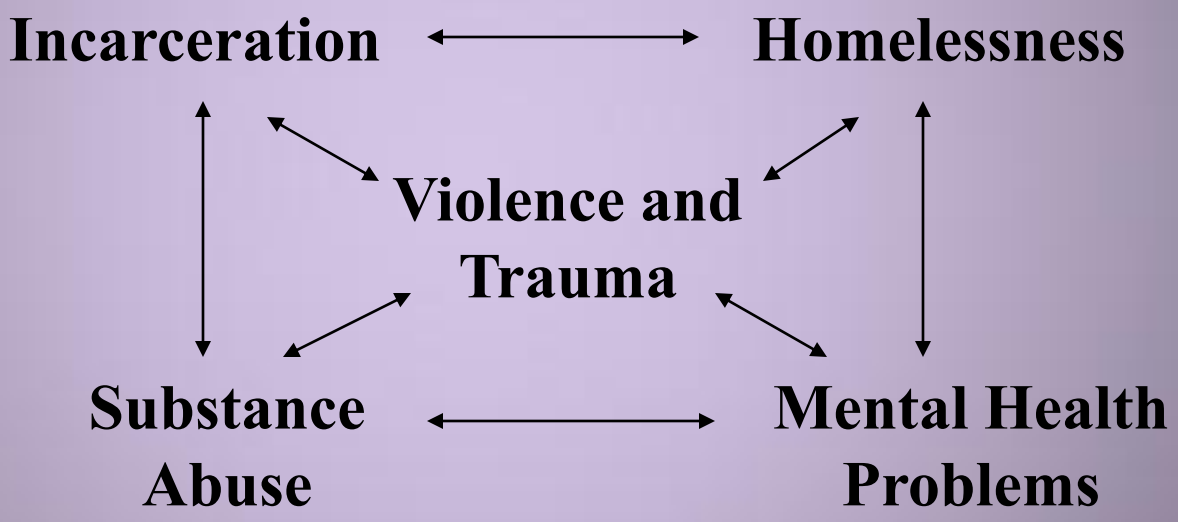
Community Connections

Is Trauma-Informed Care a Fad?

- History of TIC
  - SAMHSA Matrix: Trauma as Cross-Cutting Principle; Women, Co-Occurring Disorders, and Violence Study; National Center for Trauma-Informed Care; NCTSN
  - Harris, M. & Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
  - NASMHPD Initiatives
- Current Initiatives
  - Federal: inclusion in RFAs
  - States: State Public Systems Coalition on Trauma

Community Connections

Changes in Understanding: The Centrality of Trauma



Community Connections

Changes in Understanding: The Paradigm Shift

- Understanding of Trauma
- Understanding of the Individual Who Has Experienced Trauma
- Understanding of Services
- Understanding of the Service Relationship

Community Connections

Traditional Human Services Paradigm

- Understanding of Trauma
  - PTSD as organizing model
  - The impact of trauma is seen in predictable and obviously related domains of functioning
  - Trauma is viewed as a discrete event
  - The impact of trauma follows a definable course with specifiable time limits

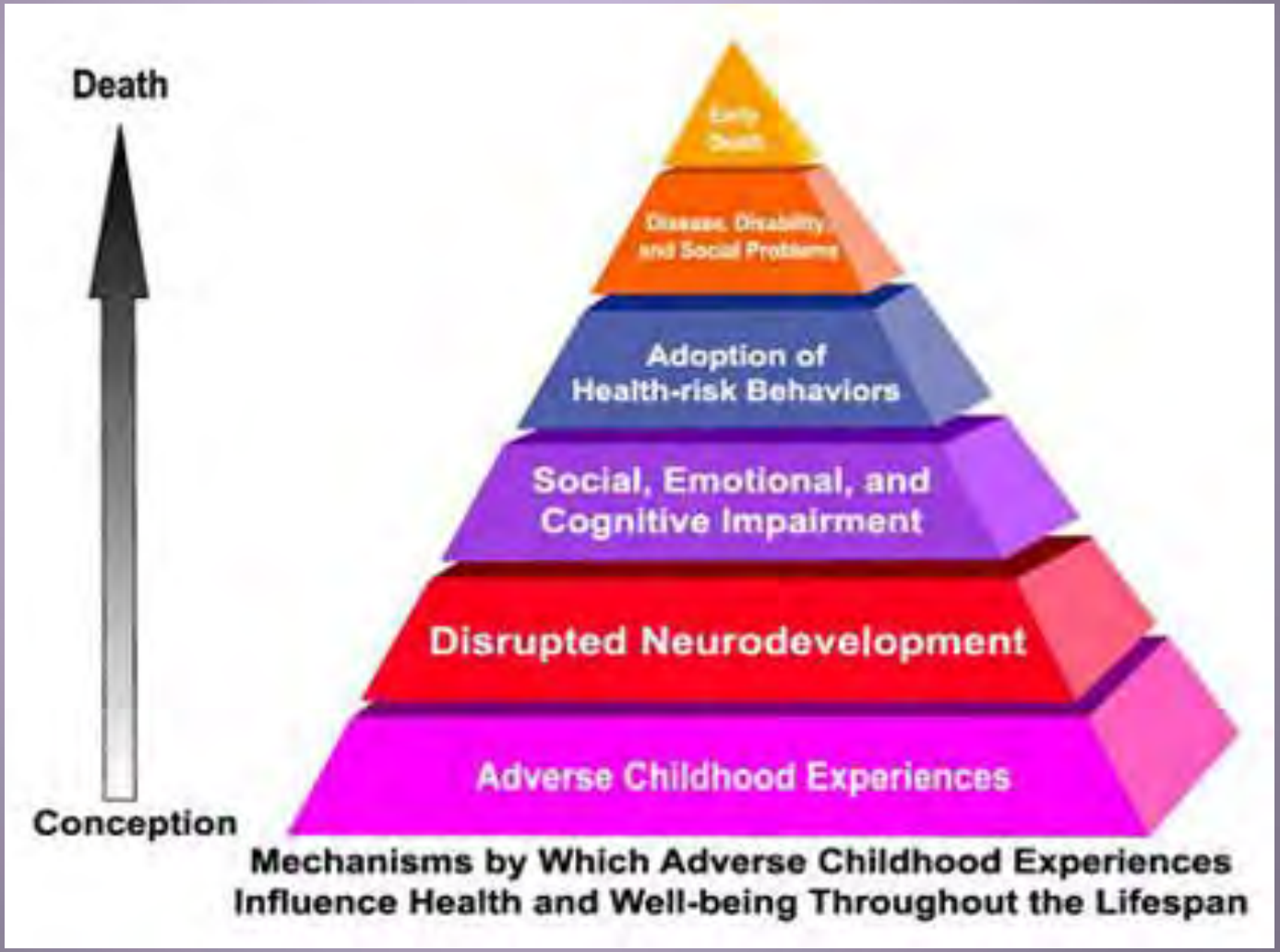
Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Trauma
  - Traumatic events are not rare; experiences of life disruption are pervasive and common
  - The impact of trauma is seen in multiple, apparently unrelated life domains
  - Repeated trauma is viewed as a core life event around which subsequent development organizes
  - Trauma may begin a complex pattern of actions and reactions which have a continuing impact over the course of one's life

Community Connections

Adverse Childhood Experiences (www.ACEstudy.org)



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Community Connections

Traditional Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - Each separate service system has its own view of the individual and her or his problems
  - The “problem” is understood as an individual difficulty independent of context
  - The problem and the symptom are synonymous
  - The individual is often attributed either too little or too much responsibility

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - An integrated, whole person view of both the individual and his or her challenges
  - A contextual, relational view of both challenges and solutions
  - Symptoms understood not merely as problems but primarily as attempts to cope and survive; “symptoms” may be “solutions”
  - Appropriate allocation of responsibility

Community Connections

Traditional Human Services Paradigm

- Understanding of Services
  - The primary goals of services are stability and the absence of symptoms or social problems
  - Services are often reactive rather than proactive
  - Service time limits are economically and administratively driven

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Services
  - Primary goals are growth, empowerment, resilience, and life skill development
  - Service priorities are prevention driven
  - Service time limits are determined by the individual's needs

Community Connections

Traditional Human Services Paradigm

- Understanding of the Service Relationship
  - The individual is seen as passive recipient of services
  - The individual's safety and trust are taken for granted
  - Provider/patient relationships remain uniformly hierarchical

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Service Relationship
  - Both patient and service provider have a unique and valuable perspective
  - Patient voices need to be drawn out in empathic relationships, sensitized to the silencing impact of trauma
  - The individual's safety must be guaranteed and trust must be developed over time
  - Service relationships involve appropriate collaboration

Community Connections

Changes in Practice: Protocol for Developing a Trauma-Informed Culture

- Services-level changes
  - Service procedures and settings
  - Formal service policies
  - Trauma screening, assessment, service planning, and trauma-specific services
- Systems-level/administrative changes
  - Administrative support for program-wide trauma-informed culture
  - Trauma training and education
  - Human resources practices

Community Connections

Changes in Practice: Reviewing Service Procedures and Settings

- 1) Identify formal and informal activities and settings; specify sequence of events
- 2) Ask key questions about each activity and setting
- 3) Prioritize goals for change
- 4) Identify specific objectives, responsible person(s), and allotted time

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

Safety: Physical and Emotional Safety

- To what extent do service delivery practices and settings ensure the physical and emotional safety of patients?
- How can services and settings be modified to ensure this safety more effectively and consistently?

Community Connections

Where is the "here" in this quote?

"If people don't feel safe here, nothing else is going to happen."

http://www.youtube.com/embed/Pwghabw4N80?rel=0

Community Connections

Denial Stops Here!

Community Connections

Optimism Lives Here!

We Believe in Kids!

Community Connections

"You are entering a safe and special place"

Community Connections

From wherever you are,
enter and be welcome.

Community Connections

Trustworthiness: Clarity, Consistency, and Boundaries

- To what extent do current service delivery practices make the tasks involved in service delivery clear? Ensure consistency in practice? Maintain boundaries, especially interpersonal ones, appropriate for the program?
- How can services be modified to ensure that tasks and boundaries are established and maintained clearly, consistently, and appropriately?

Community Connections

Learning from the Remodelers

Community Connections

Choice: Consumer Choice and Control

- To what extent do current service delivery practices prioritize patient experiences of choice and control?
- How can services be modified to ensure that patient experiences of choice and control are maximized?

Community Connections

"An Ounce of Choice is Worth a Pound of Cure"

- Patient preferences in routine practice
- Patient preferences in crisis
- Small choices can have big consequences

Community Connections

Collaboration: Collaborating and Sharing Power

- To what extent do current service delivery practices maximize collaboration and the sharing of power between providers and patients?
- How can services be modified to ensure that collaboration and power-sharing are maximized?

Community Connections

"All Abuse is the Abuse of Power"

- Doing to
- Doing for
- Doing with

Community Connections

Empowerment: Recognizing Strengths and Building Skills

- To what extent do current service delivery practices prioritize patient empowerment, recognizing strengths and building skills?
- How can services be modified to ensure that experiences of empowerment and the development or enhancement of patient skills are maximized?

Community Connections

A Starbucks Customer Satisfaction Survey Story

- Was your drink prepared properly?
- Did anyone greet you by name?
- Was your visit to Starbucks _____?

(fill in the blank)

Changes in Practice: Revisiting the Core Principles Yet Again—for Staff this Time

- Safety: How can we ensure physical and emotional safety for staff members throughout our system of care?
- Trustworthiness: How can we maximize trustworthiness as administrators and supervisors? Make tasks and procedures clear? Be consistent?
- Choice: How can we enhance staff members' choice and control in their day-to-day work?
- Collaboration: How can we maximize collaboration and sharing of power with staff members?
- Empowerment: How can we prioritize staff empowerment and skill-building at every opportunity? Provide resources?

Community Connections

Review of Formal Policies

- Confidentiality policies are clear and shared with patients
- Policies avoid involuntary or coercive elements of treatment
- De-escalation policy is formalized and minimizes possibility of retraumatization
- Program prioritizes patient preferences in responding to crises (e.g., use of preference forms)
- Program has clearly written, accessible statement regarding patient rights and grievances

Community Connections

Trauma Screening, Assessment, Service Planning, and Trauma-Specific Services

- Universal trauma screening
- Follow-up with appropriate assessment of trauma exposure history and impact
- Include trauma-based information in collaborative, person-centered recovery planning
- Offer, or link to, trauma-specific services

Community Connections

Administrative Support for Trauma-Informed Culture

- Support for the integration of knowledge about trauma into all aspects of agency functioning
- Possible indicators:
  - Formal policy or mission statements
  - Developing a “trauma initiative”
  - Making resources available
  - Active administrator participation

Community Connections

Trauma Training and Education

- General trauma education for all staff (including administrators and support staff)
  - Recognize trauma dynamics; avoid retraumatization; understand range of coping behaviors; boundaries
- Clinical trauma education for direct service staff
  - Modifications for their specific areas; trauma-specific interventions; staff self-care

Community Connections

Human Resources Practices

- Hiring or identifying “trauma champions”
  - Knowledgeable about trauma; prioritize trauma sensitivity in service provision; communicate importance of trauma
- Including trauma content in interviews of prospective staff
  - Knowledge about trauma, trauma sequelae, and recovery
- Including trauma-related activities in performance reviews

Community Connections

Conclusion

- What we know about trauma, its impact, and the process of recovery calls for trauma-informed service approaches
- A trauma-informed approach involves fundamental shifts in thinking and practice at all programmatic levels
- Trauma-informed services offer the possibility of enhanced collaboration for all participants in the human service system

Community Connections (www.ccdc1.org): Materials for "Creating Cultures of Trauma-Informed Care"

- Harris, M. and Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
- "CCTIC Program Self-Assessment and Planning Protocol"
- "CCTIC Program Self-Assessment Scale"
- "CCTIC Program Services Implementation Form"

Community Connections

15 min Break

Enjoy!!!

Staff Support in Trauma Informed Programs

Lori L. Beyer, LICSW
Community Connections
Washington, DC

Staff Support and Well-Being

Understanding trauma-informed change as a "cultural" and "systemic" process means:

- Support and care for entire staff is essential, not an option or luxury
- Staff support is an organizational obligation as well as a "personal" or "professional" concern
- In stressed systems, trauma is a literal and figurative reality for many administrators and staff
- In such settings, we can apply much of what we know about trauma and recovery to the agency or program as a whole

The Basic Lesson

Staff members—all staff members—can create a setting of, and offer relationships characterized by, safety, trustworthiness, choice, collaboration, and empowerment only when they experience these same factors in the program as a whole. It is unrealistic to expect it to be otherwise.

A Culture Shift: The Core Principles of a Trauma-Informed System of Care (Revisited)

- Safety: Ensuring staff physical and emotional safety
- Trustworthiness: Maximizing trustworthiness of the system and making staff tasks clear
- Choice: Enhancing staff choice and control
- Collaboration: Maximizing collaboration and sharing of power with staff
- Empowerment: Prioritizing staff empowerment and skill-building

Name that Stressor

Some Common Stressors in Human Services

- Goals/demands exceed resources: do more with less
- Conflicting obligations or expectations
- Ambiguous standards for success
- Physical danger
- Emotional challenges, including vicarious trauma
- Few staff supports

Adapted from Russo, 2007

Vicarious Trauma and Burnout

- Vicarious Trauma (Compassion fatigue): Client-related flashbacks, troubling dreams, intrusive thoughts, sudden recall of frightening experiences, losing sleep
- Burnout: Work-related feelings of being trapped, hopeless, tired, depressed, worthless; unsuccessful at separating work from personal life

Adapted from Adams et al., 2006

Levels of Work-Related Stress

- Organizational: budget constraints; limited leave, supervision, physical resources (space, e.g.); increased caseloads
- Professional: beliefs about empathy, independence, and stoicism; number of education/consultation events
- Personal: personal trauma history; ineffective coping attempts; current stressors in personal life

Adapted from Russo, 2007

A Multi-Level Response to Stress

- Organizational: what the agency, program, or setting can do to support staff
- Professional: what the staff member and agency can do to enhance professional and work-related strengths
- Personal: what the staff member and agency can do to enhance personal well-being

Psychologically Healthy Workplaces

- Employee involvement
- Work-life balance
- Employee growth and development
- Health and safety
- Employee recognition

American Psychological Association, 2007

Toxic vs. Healthy Work Cultures

Adapted from Kahn & Langlieb, 2003 and Russo, 2007

- People do not help each other.
- Human needs are ignored.
- People feel alienated and dehumanized.
- Alternative approaches are met with derision.
- Cliques are common.
- There is systemic rigidity; boss is always right.

- Workers know what is expected of them.
- They have the resources to do the work.
- They have daily opportunities to do what they do best.
- Praise is offered regularly.
- Personal and professional development is encouraged.

What Helps? Organizational Responses

- Supervision/consultation/case discussion
- Time off for staff
- Education/training/new skills
- Opportunities to discuss and debrief about client- and work-related stressors
- Variety in caseload and work tasks
- Mental health benefits

Adapted from Russo, 2007

What Helps? Professional Responses

- Understand your own work needs
- Take time off from work
- Find education/training for new skills
- Take advantage of supervision/consultation
- Identify strengths—clients' and your own
- Accept reality of stress and strain
- Nurture your sense of humor

Adapted from Russo, 2007

What Helps on a Daily Basis?

- Pace yourself; take breaks when possible
- Talk to someone else—someone helpful
- Develop your own list of self-soothing activities that "fit" at work—and use them
  - Breathing, relaxation, meditation
  - Self-talk that is reassuring
- Monitor your body's reactions to the day

Adapted from Russo, 2007

Helping Yourself/Helping Others

- Accept stress and related feelings as legitimate—for yourself and for coworkers
- Express support and find supportive others
- Promote solutions rather than complaints
- Contribute to cohesion of your workgroup
- Strive for open and direct communication
- Frame problems and solutions as group concerns rather than individual ones

Adapted from Russo, 2007

What Helps?
Personal Responses

- Be honest about your exposure to emotionally stressful material
- Attend to inner experience; therapy?
- Build in transition times between work and home
- Use coping skills common in trauma curricula
- Have fun, be spontaneous, laugh
- Personal life? Balanced life? Spiritual life?

Adapted from Russo, 2007

Conclusion

- Trauma-informed service approaches involve the entire culture and all constituencies of a program
- Staff support and care are therefore a key element in this model
- Organizational, professional, and personal resources can help staff deal more effectively with work-related stress

How We're Becoming Trauma Informed

Implementing Trauma Informed Care in Nova Scotia

First Steps

- External Review – Child and Adolescent Mental Health and Addictions Services in the Halifax Regional Municipality (DHW/IWK)
- Action plan developed regarding how to proceed with recommendations (IWK/DHW)

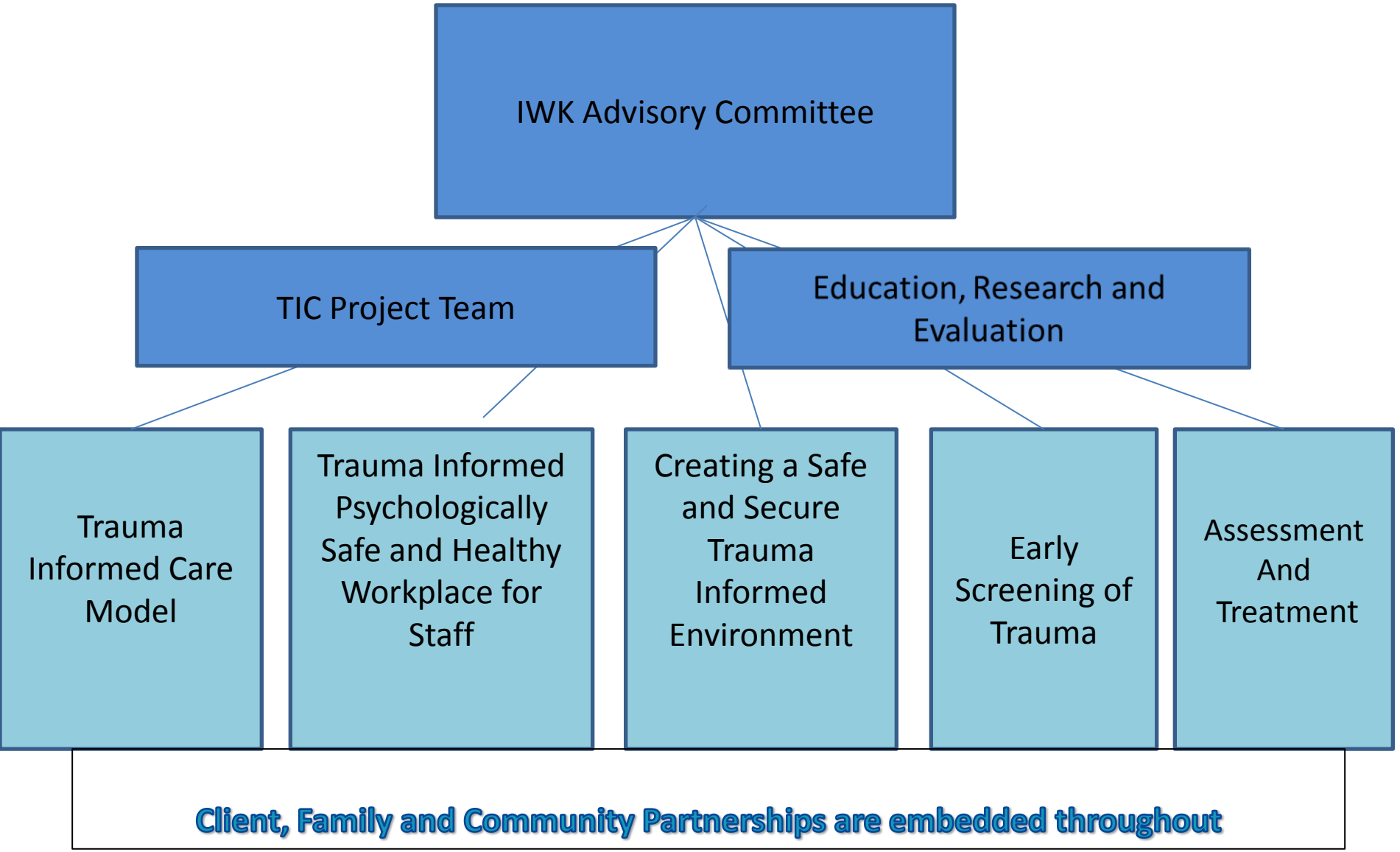
DHW /IWK Initiatives

- Formation of Provincial Project Advisory Team
- Provincial Consultations
- Webinars
- Framework ,Practice Briefs and Standards.

IWK Initiatives

- Formation of IWK CDHA Advisory Committee and Working Groups
- Work started on all working groups

Trauma Informed Care Team Structure



Some Examples of Working Group Initiatives

- Staff Mindfulness Training Pilot Study
- Debriefing Process and Resources
- Support for Staff - Resource List
- Website
- Trauma Informed Environmental Checklists

Look Around Your Physical Environment

- Examine your physical spaces to ensure they are comfortable, safe and calming
- Signage– Is the wording framed as what you can do vs. what you can't do?
- Are your waiting areas welcoming and friendly with comfortable furniture with maintenance up to date?
- Do you have information in client/patient areas that is intended to assist staff but may be triggering for clients/patients?
- Provide culturally appropriate symbols of safety in the physical environment (e.g. if you received Ali training -LGBTQI rainbow flag on an office door, culturally diverse posters, age appropriate)
- Artwork- Is the art work displayed calming to most people?

Be Mindful of the Emotional Environment

- Create interactions that are kind, calm, reassuring, safe, strengths-based and respectful
- Engaging around the client's/patient's goals
- Provide relationships which are honest and transparent and provide the client/patient with a developmentally appropriate degree of power and control. The child should understand what is about to happen, have a say and some control over pain management.
- Ask what helps when you or your child are upset/in pain? What was successful in the past? What are the triggers? What can we do?
- Continually seeking feedback regarding the client/patient's experience.
- Recognizing a coworker may be experiencing difficulty and offering support at the team level and also the organizational level.

OUR WORDS HAVE POWER

OLD WAY OF THINKING/DEFICIT BASED VS. TRAUMA INFORMED LANGUAGE/STRENGTHS BASED

What is wrong with you?	What happened to you? How did you cope?
This person is being manipulative	They are trying to get their needs met
They want attention	They are trying to connect the best they can
They have poor coping methods	They have survival skills and we can further support them by offering ideas for additional coping strategies
They'll never get over it, or they are permanently damaged	People can continue to learn effective coping strategies, and can recover from trauma
I shouldn't raise the issue of trauma or they will get upset	Talking about trauma (without forcing disclosure) gives opportunity to discuss, normalize & learn coping strategies. Failing to ask may reinforce society's denial of either prevalence or impact of trauma.

Introduction to Education Plan

Level 1: For EVERYONE

- **KICK OFF EVENT!!!!**
- General Awareness Campaign (e.g., Posters, 'Did You Know' emails)
- All IWK Staff Core Competencies (in development)
- Website (now available)
- TIC Education Sessions
  - Cultural Sensitivity/Competence/Relevance and TIC
  - Patient and Family Panel
  - Community Partners Panel
  - TIC Safe and Secure Environments

Sustainability Plan:

- Team-specific and Community-Based Organization consultations
- Train the Trainer Program/Trauma Informed Care Champions
- IWK TIC-Specific Staff Orientation/Onboarding Modules
- IWK Online/E-Source Education and 'Re-certification' Module
- TIC principles incorporated into Non-Violent Crisis Intervention

Level 2: For Designated Mental Health and Addictions Staff & Identified Individuals/Teams

- Attachment, Regulation and Competency (ARC) Training

- Clinician Core Competencies (in development)

Level 3: For Designated Clinicians who provide Trauma-Specific Services

- Evidence-Based Trauma-Specific Interventions Training for Mental Health and Addictions Clinicians

Sustainability Plan

Evaluation

- Community Connections Protocol for Certification (Harris and Fallot, 2009)
- Annual All Staff Survey (aka Readiness Survey)
- Annual Team TIC Evaluation Template
- Core Competencies
- Checklists

Potential Future Initiatives

- Online Education and Recertification Modules/Onboarding
- Performance Review Considerations
- Human Resources Considerations
- Student Training and Research Opportunities
- Curriculums for Health Professions

Examples of Research Opportunities

- Benchmarking Study
- TIC Pre-2016 at the IWK Study
- Patient/Family Driven Research Projects
- Client, family, staff, community partner satisfaction/feedback surveys/Focus groups
- Seclusion and restraint prevention research
- Screening
- Evidence-based trauma-specific intervention outcomes/Patient reported outcomes
- IT systems and trauma tracking
- IWK Resources/Services for Newcomers to Canada

Introducing our New Logo/Tagline

Website

www.yourexperiencesmatter.com

Acknowledgements

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- Department of Health and Wellness
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- Trauma Informed Care Project Team
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- Trauma Informed Care Working Group Co-Leads
- Our system and community partners
- Revolve Branding
- All of you for taking the time out of your day to learn more about trauma informed care.

Special Thanks to the TIC Project Team for making this week happen!

- Jennifer Jeffrey, Project Manager
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- Charlene Martell, TIC Administrative Assistant
- Jennifer McCarron, TIC Policy and Communications Lead
- Joanne Zevenhuizen, MHA Advanced Practice Leader: Education

Questions

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Open Access

Shelter from the Storm: Trauma-Informed Care in Homelessness Services Settings

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Abstract: It is reasonable to assume that individuals and families who are homeless have been exposed to trauma. Research has shown that individuals who are homeless are likely to have experienced some form of previous trauma; homelessness itself can be viewed as a traumatic experience; and being homeless increases the risk of further victimization and retraumatization. Historically, homeless service settings have provided care to traumatized people without directly acknowledging or addressing the impact of trauma. As the field advances, providers in homeless service settings are beginning to realize the opportunity that they have to not only respond to the immediate crisis of homelessness, but to also contribute to the longer-term healing of these individuals. Trauma-Informed Care (TIC) offers a framework for providing services to traumatized individuals within a variety of service settings, including homelessness service settings. Although many providers have an emerging awareness of the potential importance of TIC in homeless services, the meaning of TIC remains murky, and the mechanisms for systems change using this framework are poorly defined. This paper explores the evidence base for TIC within homelessness service settings, including a review of quantitative and qualitative studies and other supporting literature. The authors clarify the definition of Trauma-Informed Care, discuss what is known about TIC based on an extensive literature review, review case examples of programs implementing TIC, and discuss implications for practice, programming, policy, and research.

Keywords: Homelessness, trauma, trauma-informed, systems change.

INTRODUCTION

Trauma-Informed Care: A Paradigm Shift for Homeless Services

> *"Homelessness deprives individuals of…basic needs, exposing them to risky, unpredictable environments. In short, homelessness is more than the absence of physical shelter, it is a stress-filled, dehumanizing, dangerous circumstance in which individuals are at high risk of being witness to or victims of a wide range of violent events"* [1].

Homelessness is a traumatic experience. Individuals and families experiencing homelessness are under constant stress, unsure of whether they will be able to sleep in a safe environment or obtain a decent meal. They often lack a stable home and also the financial resources, life skills, and social supports to change their circumstances. In addition to the experience of being homeless, an overwhelming percentage of homeless individuals, families, and children have been exposed to additional forms of trauma, including: neglect, psychological abuse, physical abuse, and sexual abuse during childhood; community violence; combat-related trauma; domestic violence; accidents; and disasters. Trauma is widespread and affects people of every gender, age, race, sexual orientation, and background within homeless service settings.

Early developmental trauma—including child abuse, neglect, and disrupted attachment—provides a subtext for the narrative of many people's pathways to homelessness [2]. Violence continues into adulthood for many people, with abuse such as domestic violence often precipitating homelessness [3-5], and with homelessness leaving people vulnerable to further victimization. The impact of traumatic stress often makes it difficult for people experiencing homelessness to cope with the innumerable obstacles they face in the process of exiting homelessness [6], and the victimization associated with repeated episodes of homelessness. Research has found that people who experienced repeated homelessness were more likely than people with a single episode of homelessness to have been abused, often during childhood [6].

Trauma refers to an experience that creates a sense of fear, helplessness, or horror, and overwhelms a person's resources for coping. The impact of traumatic stress can be devastating and long-lasting, interfering with a person's sense of safety, ability to self-regulate, sense of self, perception of control and self-efficacy, and interpersonal relationships. Some people have minimal symptoms after trauma exposure or recover quickly, while others may

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develop more significant and longer-lasting problems such as Posttraumatic Stress Disorder (PTSD) and Complex Trauma.

Trauma reactions are not the only psychiatric issue facing people who are homeless; many people experiencing homelessness also suffer from depression, substance abuse [7-10], and severe mental illness [8, 10]. These issues leave individuals even more vulnerable to revictimization [11], interfere with their ability to work, impair their social networks [8], and further complicate their service needs.

These findings suggest that we will be unable to solve the issue of homelessness without addressing the underlying trauma that is so intricately interwoven with the experience of homelessness. Those working in homeless services have the opportunity to reach many trauma survivors who are otherwise overlooked. Providers in these settings address the immediate crisis by offering food, shelter, and clothing; but they can also contribute to longer-lasting changes by helping an individual or family develop supportive connections in the community and begin to heal from past traumas. Despite this fact, few programs serving homeless individuals and families directly address the specialized needs of trauma survivors. Homeless services have a long history of *serving* trauma survivors, without being *aware of* or *addressing* the impact of traumatic stress [12]. Overwhelmed by the daily needs of their clients, providers in these settings often have few resources to address issues of long-term recovery.

With increasing recognition of the pervasiveness of traumatic stress among people experiencing homelessness, awareness is growing of the importance of creating Trauma-Informed Care within homeless services settings. Trauma-Informed Care (TIC) involves "understanding, anticipating, and responding to the issues, expectations, and special needs that a person who has been victimized may have in a particular setting or service. At a minimum, trauma-informed services endeavor to do no harm—to avoid retraumatizing or blaming [clients] for their efforts to manage their traumatic reactions" [13]. Implementing TIC requires a philosophical and cultural shift within an agency, with an organizational commitment to understanding traumatic stress and to developing strategies for responding to the complex needs of survivors.

Despite its importance, the implementation of TIC within homelessness service settings is still in its infancy. Currently, the nature of TIC remains ill-defined. Strategies for implementation are obscure, few program models exist, and there is limited communication and collaboration among programs implementing TIC. The descriptive and research literature in this area is sparse, with only a handful of studies examining the nature and impact of TIC. More clarification is needed about what exactly defines TIC, what changes should be made within systems wishing to offer TIC, and how these changes should be implemented.

The purpose of this paper is to review the evidence base that supports the use of TIC for individuals and families experiencing homelessness. In this review, we have attempted to:

- Establish a consensus-based definition of TIC
- Discuss what is known about TIC based on our literature review
- Describe models and case examples of what is being done in the field to implement TIC within homeless service settings

We conclude by summarizing implications of our current state of knowledge for practice, programming, policy, and research and by highlighting next steps for developing evidence-based, trauma-informed homeless services.

What is Trauma-Informed Care (TIC)?

What is meant by TIC? Although there is agreement that "trauma-informed" refers generally to a philosophical/ cultural stance that integrates awareness and understanding of trauma, there is no consensus on a definition that clearly explains the nature of TIC.

TIC supports the delivery of Trauma-Specific Services (TSS). TSS refers to interventions that are designed to directly address the impact of trauma, with the goals of decreasing symptoms and facilitating recovery. TSS differs from TIC, in that TSS are specific treatments for mental disorders resulting from trauma exposure, while TIC is an overarching framework that emphasizes the impact of trauma and that guides the general organization and behavior of an entire system. TSS may be offered within a trauma-informed program or as stand-alone services [12].

Based on the literature review, we summarized the basic principles of TIC proposed by various workgroups, organizations, expert panels, and researchers. (see Table **1**). Each of these sources posited a unique definition of TIC. We identified and highlighted common cross-cutting themes and then synthesized them into a single definition. Themes include:

- **Trauma awareness**: Trauma-informed service providers incorporate an *understanding of trauma* into their work. This may involve altering staff perspectives, with providers understanding how various symptoms and behaviors represent adaptations to traumatic experiences. *Staff training*, *consultation*, and *supervision* are important aspects of organizational change towards TIC and organizational practices should be modified to incorporate awareness of the potentially devastating impact of trauma. For example, agencies may implement routine screening for histories of traumatic exposure, may conduct routine assessments of safety, and may develop strategies for increasing access to trauma-specific services. Dealing with *vicarious trauma* and *self-care* is also an essential ingredient of trauma-informed services. Many providers have experienced trauma themselves and may be triggered by client responses and behaviors.
- **Emphasis on safety**: Because trauma survivors often feel unsafe and may actually be in danger (e.g., victims of domestic violence), TIC works towards building *physical and emotional safety for consumers and providers*. Precautions should be taken to ensure the physical safety of all residents. In addition, the organization should be aware of *potential triggers* for consumers and strive to avoid retraumatization. Because interpersonal trauma often involves boundary violations and abuse of power, systems that are aware of trauma dynamics should establish *clear roles and boundaries* that are an outgrowth of collaborative decision-making.

Privacy, confidentiality, and *mutual respect* are also important aspects of developing an emotionally safe atmosphere. Additionally, *cultural differences and diversity* (e.g., gender, ethnicity, sexual orientation) must be addressed and respected within trauma-informed settings.

- **Opportunities to rebuild control:** Because control is often taken away in traumatic situations, and because homelessness itself is disempowering, trauma-informed homeless services emphasize the *importance of choice* for consumers. They create *predictable environments* that allow consumers to re-build a sense of *efficacy and personal control* over their lives. This includes involving consumers in the design and evaluation of services.
- **Strengths-based approach**: Finally, TIC is *strengths-based*, rather than deficit-oriented. These service settings assist consumers to identify their own strengths and develop coping skills. TIC service settings are *focused on the future* and utilize *skills-building* to further develop resiliency.

These principles form a standard for programs wishing to develop TIC within homeless service settings. Based on these combined principles, we developed a consensus-based definition of TIC:

Consensus-Based Definition

> "Trauma-Informed Care is a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment."

Trauma-informed approaches are designed to respond to the impact of trauma. The principles described above target the specialized needs of trauma survivors and describe how services can be delivered through the lens of trauma.

METHODS

This paper reviews the evidence base supporting the effectiveness of TIC for people experiencing homelessness. To date, most determinations of what constitutes evidence-based practice have relied on outcome-based quantitative research. However, this approach neglects qualitative analyses that examine the nature and process of the intervention, as well as a wealth of information that reflects what is occurring in practice. In fact, corroborative evidence, including clinical wisdom about "what works," is often the starting point for developing both qualitative and quantitative studies. In the homelessness field, corroborative evidence may be the primary body of knowledge we have about a particular intervention.

For this review, we utilized a comprehensive framework that was developed by the Homelessness Resource Center (HRC) for assessing the level of evidence of an emerging, promising or best practice [15]. The goal of this framework is not to decide whether a practice qualifies as evidence-based, but rather to synthesize all that we currently know about the intervention. Thus, our review included peer-reviewed quantitative and qualitative studies, as well as corroborative literature (e.g., program evaluations and unpublished pilot studies).

The literature on TIC is significantly greater in mental health and substance use fields than within the homelessness field. Thus, we also reviewed the current evidence base for trauma-informed practices in these areas since there is a large overlap in the difficulties faced by many individuals with mental health/substance use issues and those in homeless service settings. In fact, in the Women, Co-Occurring Disorders, and Violence Study (WCDVS), a large multi-site study examining trauma-informed services for women with co-occurring disorders and trauma exposure, 70.4% of participants had been homeless at some point in their lives [16]. We reviewed evidence for trauma-informed services within all these settings, applying this broader knowledge base to our understanding of TIC within homeless service settings.

We conducted our literature review by searching two databases, PsycInfo and Medline (PubMed), for peer-reviewed articles published in major journals. In addition, we used the Google search engine to locate web-based literature and program information. Our search terms included: homeless, homelessness, housing, shelters, trauma, trauma-informed, PTSD, services, abuse, violence, domestic violence, psychological, substance use, and mental health. We also completed more specialized searches on unique populations (using search terms such as youth, men, ethnicity, veterans), authors of note (e.g., Harris, Fallot, Bassuk, and van der Kolk), models (e.g., Attachment, Self-Regulation and Competency [ARC] and Sanctuary), programs (e.g., Community Connections, the STAR program, and the Community Trauma Treatment Center for Runaway and Homeless Youth), and research studies (e.g., the Women, Co-Occurring Disorders, and Violence Study).

In addition to reviewing the literature, we contacted various programs directly, by telephone or email, including: the National Center on Family Homelessness (Moses, Guarino); Homelessness Resource Center (Olivet); Community Connections (Fallot); the Institute for Health and Recovery (Markoff & Dargon-Hart); CT State Department of Mental Health and Addiction Services (Leal); the Domestic Violence & Mental Health Policy Initiative (Brashler, Hall); the Community Trauma Treatment Center for Runaway and Homeless Youth (Schneir); the Trauma Center at JRI/ Youth on Fire, developers of Phoenix Rising (Spinazzola); Kinniburgh and Blaustein, developers of ARC; Cincinnati Children's Hospital Medical Center, developers of CARE (Pearl); University of Connecticut Department of Psychology and the CT Department of Mental Health and Addiction Services Research Division (Marra). Many of these programs sent unpublished program evaluation reports, manuals, or self-assessment tools, for inclusion in this review.

RESULTS

Organizational Needs Assessments: Do We Need Trauma-Informed Care?

Needs assessments can be used to identify needs and to detect gaps in service within a system. We began by reviewing results of needs assessments conducted by several agencies regarding the relevance of trauma within their service system and the need for TIC. These needs

Table 1. Principles of Trauma-Informed Care

		Example Definitions of Trauma-Informed Care				
Common Principles Across Definitions		**Community Connections: Five Guiding Principles for Trauma-Informed Services** [12]	**NASMHPD*: Criteria for Building a Trauma-Informed Mental Health Service System**	**NCTSN**: Principles of Trauma-Informed Care for Children**	**NCFH***: Operating Principles for Trauma-Informed Organizational Self-Assessment**	**WCDVS****: Trauma-Informed or Trauma-Denied: Principles & Implementation of Trauma-Informed Services for Women** [14]**.**
Consensus-Based Principles Across Definitions		**Theory-Based**	**Expert Trauma Panel**	**Experts**	**Theory-Based**	**Research-based**
1. Trauma Awareness	**a. Program philosophy and mission**		Trauma function/ focus, trauma policy or position, financing for best practices, trauma-informed services, clinical practice guidelines for people with trauma histories, trauma-informed disaster planning, systems integration, research & data on trauma & evidence-based & best-practice treatment models, access to evidence-based & best-practice trauma treatment		Trauma awareness; basic understanding of trauma & triggers; includes staff training & supervision, educating consumers about trauma	Recognize the impact of trauma on development and coping
	b. Staff education, training, and consultation		Workforce orientation, training, support, competencies and job standards related to trauma; promote education of professionals in trauma			Emphasize trauma recovery as a primary goal
	c. Practices		Trauma screening and assessment; Trauma-specific services, including evidence-based and emerging best-practice treatment models		Integration (symptoms such as adaptive coping, integrating services, trauma-specific services)	
	d. Recognition of vicarious trauma and staff self-care					
2. Safety	**a. Physical and emotional safety**	Safety (physical and emotional)		Maintaining clear and consistent boundaries	Safety, basic needs, consistency, and predictability	Create an atmosphere of safety, respect, and acceptance
	b. Relationships: authentic, respectful, clear boundaries	Trustworthiness (clear tasks, consistent practices, staff-consumer boundaries)		[see Delivering services below]	Engagement: respectful nonjudgmental relationships, clear boundaries	Utilize a relational collaboration model. Growth is fostered by mutual, respectful, authentic relationships
	c. Avoid retraumatization		Procedures avoid retraumatization and reduce impacts of trauma			Minimize retraumatization

(Table 1) contd…..

		Example Definitions of Trauma-Informed Care				
Common Principles Across Definitions		**Community Connections: Five Guiding Principles for Trauma-Informed Services** [12]	**NASMHPD*: Criteria for Building a Trauma-Informed Mental Health Service System**	**NCTSN**: Principles of Trauma-Informed Care for Children**	**NCFH***: Operating Principles for Trauma-Informed Organizational Self-Assessment**	**WCDVS****: Trauma-Informed or Trauma-Denied: Principles & Implementation of Trauma-Informed Services for Women** [14]**.**
Consensus-Based Principles Across Definitions		**Theory-Based**	**Expert Trauma Panel**	**Experts**	**Theory-Based**	**Research-based**
	d. Acceptance of and respect for diversity		Trauma policies and services that respect culture, race, ethnicity, gender, age, sexual orientation, disability, and socio-economic status	Delivering services in a nonjudgmental and respectful manner	Cultural competence	Work towards cultural competence, understand contextual factors
3. Choice & Empowerment	**a. Choice and control**	Choice: maximize consumer choice and control	Consumer/Trauma Survivor/ Recovering person involvement and trauma-informed rights	Maximizing choice and control for participants	Consumer control, choice and autonomy	Underscore consumers' choice and control over recovery
	b. Empowerment model	Empowerment: prioritize consumer empowerment, skill-building, and growth		Avoiding provocation and power assertion	Open communication: provide information openly to consumers	Use an empowerment model
	c. Consumers involved in service development and evaluation	Collaboration: maximize collaboration and sharing of power between staff and consumers		Sharing power in the running of shelter activities	Shared power and governance	Involve consumers in design and evaluation of services
4. Strengths-based	**Focus on strengths, resiliency**	[see Empowerment above]			Healing, instilling hope	Highlight consumers' strengths, adaptations, and resiliencies

***** NASMHPD= National Association of State Mental Health Program Directors.
** NCTSN = National Child Traumatic Stress Network.
*** NCFH = National Center on Family Homelessness.
**** WCDVS = Women, Co-Occurring Disorders and Violence Study.

assessments were generally designed as a first step, prior to initiating a more formal organizational self-assessment or to beginning programmatic shifts. Several findings emerged from a review of these needs assessments:

- **Providers feel that they need to be better informed about trauma and violence** [17, 18]. Directors and staff within state domestic violence coalitions reported that many shelters are unprepared to deal with the complex needs of the women they serve, many of whom have few resources and have been victimized as children and as adults. Domestic violence advocates reported an increasing awareness of the need for services appropriate for women with mental health issues, substance abuse problems, and histories of abuse. They also expressed a need for guidance and resources in improving their responses to survivors of domestic violence who have experienced multiple abuses throughout their lives [18]. A multi-site program implementing trauma-informed services found that prior to implementation, sites had little knowledge about trauma, how to facilitate recovery, or how services might help or retraumatize survivors [19].
- **Many providers do not have systematic ways of assessing for trauma-related issues.** In a study examining PTSD screening and referral practices in VA addiction treatment programs, they found that although one-half to two-thirds of clinicians did routinely screen for trauma exposure and posttraumatic stress symptoms, assessments were generally not conducted systematically and did not utilize validated measures [20].
- **Consumers want services that are empowering.** Qualitative research has suggested that homeless individuals and families need and want trauma-informed services, including desire for autonomy, prevention of further victimization, and assistance in restoring their devalued sense of identity [21]. A provider guidebook, written from a consumer perspective, notes the need for accessible and effective programs for trauma survivors [22].

- **Mental health services are an important need for many homeless families and individuals.** In a multi-site research study on trauma-informed services for homeless families, researchers examined current service needs, including families' need for social capital (educational or employment-related interventions), physical health, and mental health/substance use treatment. Among the families, they found that "mental health needs were the most prevalent of all the intervention needs components across sites (62%)," with many facing multiple challenges, signaling the need for comprehensive intervention [23].

The results of these needs assessments supported the central importance of dealing with trauma within homelessness service settings and the perceived need for TIC.

Trauma-Informed Care within Homelessness Services Settings: Attitudes, Implementation, and Outcomes

Once the perceived need for trauma services is established, we can begin to explore the development of a TIC framework within homelessness service settings. We reviewed available quantitative, qualitative, and corroborative evidence regarding trauma-informed services.

Prochaska's stages of change model [24] highlights the fact that change is a process for individuals, who progress through precontemplation, contemplation, action, and maintenance of change. Similarly, systems change is a multi-step process. Our review of the literature highlighted three areas of evidence: attitudes, implementation, and outcomes. "Attitudes" refers to the beliefs of consumers and providers (at all levels, from management to front-line workers) of the need for a paradigm shift, confidence in ability to institute a paradigm shift, and belief that such a shift will lead to positive outcomes. "Implementation" coincides with Prochaska's action stage of change. It is a process variable, and is concerned with *how* changes are made. Implementation requires a clear definition of what is meant by Trauma-Informed Care, in order to translate these principles into concrete changes that will be instituted within the system. Finally, "outcomes" refers to the impact of a paradigm shift to TIC within homelessness service settings. Measurable objectives help to assess the efficacy of systems change. Outcomes may include measurable quantitative outcomes, such as a decrease in recidivism in homelessness, or qualitative outcomes, such as self-esteem or satisfaction with services.

Review of the Evidence: What Do We Know About TIC?

In our review of the evidence for TIC, several salient points emerged:

1. Attitudes

- **Programs attempting to implement TIC have encountered some concerns and resistance on the part of providers.** Providers may be afraid that addressing trauma will open a "Pandora's box" of reactions. They may lack confidence in their ability to manage and address trauma reactions and may be concerned that they will encounter triggers of their own trauma histories [19]. They may also worry that they will not have the resources to adequately respond to the complex needs of survivors.
- **Because of these concerns, taking the time to build "buy-in" is particularly important.** Recognizing the importance of commitment in organizations, some programs have developed committee structures geared towards obtaining "buy-in" from administration, program staff, and consumers. Building strong relationships also aided buy-in and integration of services [19]. After building agency-wide commitment, programs have found strong support from staff members for implementing a trauma-informed model [25].
- **Consumers want providers who are empathic and caring, who provide validation, and who offer emotional safety—characteristics of trauma-informed providers.** Consumers have emphasized the benefits of working with trauma-informed providers. Some have suggested that programs could benefit from having more trauma services, that practitioners need to remain patient, and that consumers themselves need to be invested in actively addressing their own issues [26]. However, even within trauma-informed systems, consumers sometimes struggle to feel empowered within a larger service system [27].

2. Implementation

- **Training is central to implementing TIC.** The majority of programs working to build TIC utilized staff training to increase awareness of and sensitivity to trauma-related issues. A large multi-site study of trauma-informed models found that "training on trauma for non-trauma providers was the first and most important step in making services more trauma-informed" [19].
- **Ongoing supervision, consultation, and support are needed to reinforce trauma-based concepts.** One lesson from WCDVS was the importance of ongoing supervision and support to ensure that the environment is trauma-informed and that staff members practice appropriate self-care. Many programs also used external trauma consultants and ongoing training to reinforce knowledge and commitment to building trauma-informed services [19].
- **Assessment and screening are important aspects of trauma-informed services.** Research documenting high prevalence rates of trauma among people experiencing homelessness has led to the conclusion that screening for trauma is important within homeless service settings [28]. Although providers have at times expressed concern that inquiring about trauma histories will lead to traumatic stress responses, findings indicate that there are few adverse reactions to screening and assessment. Instead, most people benefit from this type of assessment [29]. Several pilot studies show that providers refined their intake processes to include screening for trauma exposure [28, 30]. Additionally, screening and assessment tools should be revised and refined with consumer and provider feedback [29].

- **Because homeless individuals often have a multitude of service needs, comprehensive and integrated services are essential.** Studies have found that service settings offering integrated counseling—addressing trauma, mental health, and substance use issues—had better results than settings that were not integrated [31].
- **Integrating trauma-informed services for children is also important.** Children of parents who are dealing with trauma, mental illness, substance abuse, and/or homelessness may be at greater risk for adverse outcomes. A number of programs working to integrate trauma-informed services have also highlighted the importance of parallel services for children. In WCDVS, a subset of sites offered specialized children's programs, including assessment, groups, and resource coordination/advocacy for children to build coping skills, strengthen interpersonal relationships, and develop positive identity and self-esteem [32].
- **Many factors challenge implementation of trauma-informed services.** Various reports highlighted the logistical difficulties of systems change. Change, especially within larger systems, can be time-consuming and requires a great deal of commitment across all levels of an organization. Organizational resistance and stress can be a barrier to larger systems change [33]. Moses highlighted challenges to systems change across a number of sites working to implement integrated, trauma-informed services for women with co-occurring disorders. These challenges included philosophical differences between mental health and substance use treatment approaches, differences around issues of trauma, resistance at the service and administrative levels, limited resources, difficulties in achieving consistent participation in trauma groups, staff turnover, and the difficulty of change in general [13].
- **Implementing a trauma-informed model can lead to changes in how an organization functions.** In a program implementing a trauma-informed model, staff reported a number of changes within their programs, including increased awareness and sensitivity about trauma, intake that incorporates questions about trauma, more freedom and choice given to consumers regarding their treatment, and environmental changes that led to increases in safety, confidentiality, and a more welcoming atmosphere [30].
- **Including consumers in developing and evaluating trauma-informed services is important.** Although there has not yet been research that examines differences in services that include or do not include consumers in program development and evaluation, current wisdom in the field stresses the importance of including consumers in all aspects of programming [34, 35]. This wisdom is consistent with theories on empowerment, which suggest that survivors should be given agency in effecting their own outcomes [36]. The WCDVS found that integrating consumers into the design and evaluation of services had a profound impact on the systems involved [19], and that "integral to the… group's personal and professional growth was the development and expression of their individual and collective voices" [27].
- **Cultural competence is important in developing TIC.** Because trauma may have different meanings in different cultures, and because traumatic stress may be expressed differently within different cultural frameworks, it is important for providers within a trauma-informed system to work towards developing cultural and linguistic competence [13].

3. Outcomes

- **Trauma-informed service settings, with trauma-specific services available, have better outcomes than "treatment as usual" for many symptoms.** We know from a variety of studies [31, 37] and pilot programs [38] that setting that utilize a trauma-informed model report a decrease in psychiatric symptoms and substance use. Some of these programs have shown an improvement in consumers' daily functioning and a decrease in trauma symptoms, substance use, and mental health symptoms. These findings suggest that integrating services for traumatic stress, substance use, and mental health leads to better outcomes [16].
- **TIC for children lead to better outcomes, such as better self-esteem, improved relationships, and increased safety.** A subset of programs within WCDVS examined the impact of a standardized, trauma-informed intervention for children, consisting of a clinical assessment, coordination of resources and advocacy, and a psycho-educational skills-building group. One year later, children in the intervention group had more positive self-identity, increased tools for building healthy relationships, and improved safety. These changes were particularly striking for children who had witnessed violence [32, 39].
- **Early indications suggest that TIC may have a positive effect on housing stability.** A multi-site study of TIC for homeless families found that, at 18 months, 88% of participants had either remained in Section 8 housing or moved to permanent housing [23]. An outreach and care coordination program that provided family-focused, integrated, trauma-informed care to homeless mothers in Massachusetts found that the program led to increased residential stability [38].
- **TIC may lead to a decrease in crisis-based services.** Some studies have found decreases in the use of intensive services such as hospitalization and crisis intervention following the implementation of trauma-informed care [40].
- **Trauma-informed, integrated services are cost-effective.** Because trauma-informed integrated services have improved outcomes but do not cost more than standard programming, they are judged to be cost-effective [41].
- **Qualitative results find that providers report positive outcomes in their organizations from**

implementing TIC. Providers report greater collaboration with consumers, enhanced skills, and a greater sense of self-efficacy among consumers, and more support from their agencies. Supervisors report more collaboration within and outside their agencies, improved staff morale, fewer negative events, and more effective services [40].

- **Qualitative results indicate that consumers respond well to TIC.** Within the D.C. Trauma Collaboration study, consumers reported an increased sense of safety, better collaboration with staff, and a more significant "voice." Eighty-four % of consumers rated their overall experience with these trauma-informed services using the highest rating available [42]. Survey results suggest that consumers were very satisfied with trauma-informed changes in service delivery [25].

These results reinforce the need for TIC, assist in further defining TIC, clarify the process of implementation, and suggest the efficacy of TIC for certain outcomes. However, in our review, we found that various questions were *not* addressed by available evidence. These gaps in the available evidence are important in highlighting the additional work that remains to be done to implement TIC in homelessness service settings.

Review of the Evidence: What Do We Not Know About TIC?

Our review of the literature highlighted several directions for future exploration:

1. Attitudes

- **Although providers and consumers alike generally pay lip service to the idea of TIC, we do not know the extent to which their attitude is influenced by demand.** In much of the research to date, providers and consumers were given brief questionnaires or were interviewed—in many cases, by the individuals working to build trauma-informed services. Thus, there may be a tendency to indicate support of implementation plans and strategies in the absence of true commitment.

2. Implementation

- **We do not know exactly what constitutes "trauma-informed care."** Trauma has become a buzz-word recently, with many agencies and workgroups noting the importance of becoming "trauma-informed." However, definitions of "trauma-informed" and how these ideas are implemented vary widely. There is generally a lack of specificity in how agencies are defining "trauma-informed," and how this relates to actual practice.
- **We do not have a clear method for measuring the degree to which a program is trauma-informed.** Because of the lack of definitions and behaviorally-defined changes signifying trauma-informed services, there is no consistent basis for identifying whether or not and to what degrees a program is trauma-informed.
- **We do not know how special populations respond to trauma-informed homelessness services.** Much of the evidence on trauma-informed homelessness systems concerns women and children. We know less about the response of other groups, such as men, veterans, individuals from ethnic/racial minorities or other cultures, and lesbian, gay, bisexual and transgendered (LGBT) individuals.

3. Outcomes

- **We do not know whether differences in outcomes are based on trauma-informed environments, trauma-specific interventions, or both.** Because many service settings that provide TIC also offer trauma-specific services, the extent to which each component contributes to change is difficult for research studies to determine.
- **We do not know whether trauma-informed services are effective specifically within homeless services.** Although the research in other fields suggests that trauma-informed services may be effective for homeless individuals, there have yet to be any rigorous, quantitative studies exploring outcomes within homelessness service settings. The results of the Homeless Families Program, a current multi-site evaluation of trauma-informed homelessness services, may begin to shed some light on this issue.

Our review of the current evidence suggests that TIC is an important area for further exploration. Initial feedback appears to support the assertion that TIC has a positive impact on both the process and outcome of service provision within homelessness service settings. However, the review highlighted as many questions and gaps as it defined results and conclusions.

Because the implementation of TIC within homelessness service settings is in its infancy, it is particularly important to review lessons from the field, including self-assessments and frameworks that are being developed to guide the paradigm shift to TIC, as well as feed back from local, regional, and national programs and initiatives that are implementing TIC. Lessons from the field highlight clinical insights, new practice initiatives, and areas in need of further qualitative and quantitative research.

Corroborative Evidence: Lessons from the Field on Building TIC in Homelessness Service Systems

When we look to the field for best practices and clinical wisdom, we find a wealth of information about current theories, practices, programming, and policy initiatives. This information tells us that although we do not yet have substantial outcome-based research supporting the effectiveness of TIC, there is considerable activity in the field that is awaiting additional documentation. Many homeless service systems are beginning to address this issue—administrators, providers, consultants, and consumers are working together to transform programs into environments that offer TIC.

After recognizing the pervasiveness of traumatic stress among people experiencing homelessness, various programs are taking steps to become more trauma-informed. We have

selected several case examples to describe the ways in which homeless service settings are striving to become more trauma-informed. This is not a comprehensive list of trauma-informed resources and programs. Instead, it is intended to illustrate various creative ways that programs are implementing trauma-informed models within homeless service systems, and some of the tools that are available to aid this transition.

Selected Promising Models

To foster the development of trauma-informed homeless service settings without reinventing the wheel within each individual program, innovators have developed frameworks and models that can serve as guides for implementing TIC. Various models have been proposed that support organizational change towards a model of TIC and that guide trauma-informed service delivery. Some of these models are:

- Attachment, Regulation, and Competency: A Comprehensive Framework for Intervention with Complexly Traumatized Youth (ARC) [43]
- Child Adult Relationship Enhancement (CARE)
- *A Long Journey Home* [44]
- Phoenix Rising [45]
- Sanctuary Model [46]
- Using Trauma Theory to Design Service Systems [12]

Table **2** describes each of these models, the applications of the models, and available evidence supporting their effectiveness. These models of TIC emphasize staff education, involving consumers, and transforming systems to be responsive to the needs of trauma survivors. Several models, including ARC, CARE, and Sanctuary, have an evidence base (e.g., outcomes-based quantitative research) in the mental health field (including inpatient and outpatient settings) and are considered to be promising practices in trauma-informed care [46]. Others, such as *A Long Journey Home* and Phoenix Rising, were developed specifically for homeless service settings. Most of these models have been implemented within homeless service settings, and process and outcome evaluation data are currently being collected.

HOW TRAUMA-INFORMED ARE WE? ORGANIZATIONAL SELF-ASSESSMENTS

The models described above highlight the need for a framework that provides the foundation for a paradigm shift within homelessness service systems. Once a model for TIC has been identified, an organizational self-assessment can be utilized as a starting point for systems change.

Self-assessment targets specific areas for change and indicates how a service delivery model might be adapted to an organization's unique needs. As the model is implemented, a self-assessment is a useful reminder about important aspects of trauma-informed care that facilitate self-monitoring and program evaluation. Organizational self-assessments can also be conducted after implementation of a paradigm shift in order to evaluate the effectiveness of the systems change.

Several trauma-informed organizational self-assessments are currently available or/are in development. They include:

- The Collaboration on Trauma-Surviving Homeless Children, a partnership between the National Center on Family Homelessness and the Trauma Center at Justice Resource Institute (JRI), has developed the ***Trauma-Informed Organizational Self-Assessment for Programs Serving Homeless Families*** [50] to help programs assess the degree to which their services are trauma-informed and to highlight areas for change. The self-assessment addresses organizational issues such as delineating program mission, guidelines, and policies; reviewing services and policies; establishing a safe and trauma-informed physical environment; respecting consumer needs and differences; protecting consumer privacy and information; encouraging internal and external community-building; and involving consumers in program development and evaluation. The instrument evaluates staff issues, including hiring practices, staff training and education, and supervision and support. It also assesses consumer issues, including procedures for arrival and intake; safety-planning and crisis prevention; goal setting; and availability of services, including trauma-specific interventions.
- The Trauma Center at JRI has developed the ***Trauma-Informed Facility Assessment*** [49], a brief instrument assessing the degree to which an organization's physical space is trauma-informed. This assessment defines several characteristics that are of primary importance for trauma-informed organizations, including physical safety, absence of triggering material, privacy/ confidentiality, and structure and predictable/consistent response. Other areas measured by the instrument include accessibility; organization and hygiene; the ability to meet the basic needs of consumers and provide links to resources; the availability of personal/quiet space; the communication of positive messages; and the creation of a sense of community, with consumer ownership of the space and the program.
- Community Connections has developed a ***Trauma-Informed Program Self-Assessment Scale and Planning Protocol*** [51]. This tool allows organizations to evaluate the degree to which program activities and settings are consistent with five guiding principles: safety, trustworthiness, choice, collaboration, and empowerment. Six major domains are evaluated, including: program procedures and settings; formal services policies; trauma screening, assessment, and service planning; administrative support for program-wide trauma-informed services; staff trauma training and education; and human-resource practices. Each domain is evaluated on the basis of review of program policies, standard program activities, review of physical space, staff ratings, and consumer ratings.
- As part of a larger study examining integrated trauma-informed treatment for women with

Table 2. Models of Trauma-Informed Care

Model	Developers	Description	Key Principles	Applications	Research Evidence	Strengths	Limitations
The ARC Model (Attachment, Self-Regulation, and Competency): A Comprehensive Framework for Intervention with Complexly Traumatized Youth	Kinniburgh and Blaustein [48]	• ARC is a flexible framework for intervention with children/families who have experienced complex trauma. ARC has been adapted for use within various milieus. • It has been applied within homeless settings for runaway and homeless youth.	• 10 building blocks, based on three basic principles: *Attachment, Regulation, and Competency*. • *Attachment:* Caregiver affect management, attunement, consistent responses, routines and rituals. • *Regulation:* Affect identification, modulation, and expression. • *Competency*: Executive functions, self-development & identity, & developmental tasks.	Therapeutic Procedures: • Psycho-education; • Relationship strengthening; • Social skills; • Parent-education training. • ARC principles adapted for use with homeless adolescents. • ARC Agency Inventory for homeless/ runaway youth has been developed.	• Pilot data: ARC is effective in outpatient settings. • Quasi-experimental research studies: conducted in outpatient and milieu settings in MI, IL, CA, AL, & MA. Outcomes: decreased trauma symptoms, PTSD, and internalizing/ externalizing symptoms. • ARC concepts-adapted for use in homeless settings but not yet been evaluated.	• Very strong theoretical basis. • Addresses developmental trauma. • Offers a comprehensive framework for milieu change; provides a model for trauma-specific interventions. • Well-defined, with an extensive manual and comprehensive training • NCTSN calls it a "promising practice" Collecting evidence on effectiveness at multiple sites.	• Although evaluated in multiple outpatient and milieu settings, it has yet to be formally evaluated in homeless settings.
CARE (Child Adult Relationship Enhancement)	Trauma Treatment Training Center (TTTC). Revised for homeless populations by NCFH & the Trauma Center.	• Trauma-informed modification of Parent Child Interaction Therapy (PCIT). • Skill-based model for use in milieu settings. • Being modified for homeless settings.	CARE guides caregivers in child-directed and parent-directed interactions: • Caretakers' competence in managing child's problematic behaviors; • Caretakers' competence reinforcing + behaviors; • Reduce parent-child conflict; and • Enhance positive parent-child interactions.	• Trauma education component. • Live coaching. • Practice of 3 P Skills (Praise, Paraphrase, and Point-Out Behavior) to guide parent-child interactions.	• CARE is empirically informed but has not yet been evaluated. • PCIT, the foundation for CARE, has been empirically supported by numerous studies. • Piloted in shelters	• Modified PCIT-Strong theoretical & research base • Effective for building + caregiver/child relationships & building caregiver competence. • NCTSN calls it a promising practice	• Limited scope in terms of systems change. • Does not yet have an evidence base within homelessness.
A Long Journey Home	Prescott, L. and NCFH [44]	A Guide for Creating Trauma-Informed Services for Homeless Mothers and Children	Offers guidance on: • Changing the environment • Trauma-informed policies and procedures • Trauma-informed services & support • Client representation & staff development • Training and supervision • Developing sustainability	• Guide offers concrete suggestions for organizational shift towards TIC • Includes concrete examples, exercises, & suggestions for staff training.	• In the final stages of development; has not been piloted in homeless service settings.	• Practical guide for making concrete changes within systems. • Developed specifically for trauma-informed systems change within homeless service settings.	• Still in development --does not yet have a research or practice evidence base.

(Table 2) contd…..

Model	Developers	Description	Key Principles	Applications	Research Evidence	Strengths	Limitations
Phoenix Rising	Youth on Fire and the Trauma Center at JRI	Phoenix Rising is an adaptation of ARC concepts for use with homeless adolescents and young adults.	Four main components: • Staff training & ongoing consultation • Trauma-informed milieu changes based on the Trauma-Informed Facility Self-Assessment [49] • Comprehensive Risk Counseling and Services • Group activities (expressive art therapies and community-building)	Designed for non-clinical staff in shelters for homeless youth. Offers guidance on: • Training and philosophy-shift; • Self-assessment • Organizational and physical space issues • Staff issues • Consumer issues (skill-building, development of a cohesive environment)	• Being piloted at a drop-in program for homeless adolescents and young adults in Cambridge, MA.	• Practical guidebook for concrete systems change. • Modification of a strong theoretical model (ARC) for use at a drop-in center for homeless youth.	Manual under development and being piloted in a homeless service system.
The Sanctuary Model	Bloom, S. [46]	• Framework for intervening with trauma survivors and facilitating organizational change. • Originally developed for traumatized adults in inpatient units, adapted for DV shelters.	• Culture of nonviolence. • Emotional intelligence. • Inquiry & social learning. • Shared governance. • Open communication. • Social responsibility. • Growth and change. Shared intervention language: SAGE (Safety, Affect Management, Grief, Emancipation) for adults, SELF (Safety, Emotions, Loss, Future) for children.	Concrete tools for intervention include: • Community meetings • Red flag reviews • Psychoeducation • Self-care planning • Safety plans • Team meetings • Treatment planning conferences	• Program evaluation within inpatient units: reduced PTSD symptoms & use of restraints/ seclusion, improved patient satisfaction, improved staff retention. • Additional pilot trials underway.	• Theoretical base. • Research evidence in multiple settings-inpatient and outpatient • NCTSN calls it a promising practice	• Although evaluated within multiple outpatient and milieu settings, it has yet to be formally evaluated in homeless settings.
Using Trauma Theory to Design Service Systems	Harris and Fallot [12]	• Short edited book describes trauma-informed systems & the application of trauma theory to systems change. Applies concepts to various settings, such as shelters. Forms guide systems change.	• Systems change approach. • Self-Assessment and Planning Protocol ensures that all levels of the organization have an understanding of trauma, its sequelae, and the impact of trauma in shaping a consumer's responses.	• Book describing the model: Using Trauma Theory to Design Service Systems • Trauma-Informed Self-Assessment and Planning Protocol. • Trauma-Informed Self-Assessment Scale • Implementation Form.	• Piloted in DC, ME, & CT. Most pilot projects within mental health & substance abuse settings. • Initial pilot project data: support for this model from organizations, staff, and consumers.	• Theoretical base. • Self-Assessment and Planning protocol offers concrete steps for intervention. • Training and consultation is available.	• Evidence base comes from unpublished pilot studies. • Not yet evidence on this model in homeless service settings.

co-occurring disorders, the W.E.L.L. Project of the Institute for Health and Recovery (IHR) developed a toolkit for developing trauma-informed organizations. This self-assessment tool, entitled ***Developing Trauma-informed Organizations: A Toolkit*** [52], includes principles of trauma-informed treatment, a self-assessment for provider organizations, and an organizational assessment for non-provider organizations.

Although these self-assessment tools—like the service delivery models—are still in development and refinement stages, they reflect advances towards the development of TIC.

INNOVATIVE PROGRAMS AND INITIATIVES UTILIZING TIC

The development of these models and self-assessment tools has facilitated the progress of a number of innovative

programs that are working to build TIC within homelessness service systems. We selected various programs that illustrate lessons from the field with diverse populations experiencing homelessness.

Trauma-Informed Family Shelters

- The *Collaboration on Trauma-Surviving Homeless Children*—a partnership among the National Center on Family Homelessness, the Trauma Center at Justice Resource Institute, and other agencies—has worked with various shelters within the Boston metropolitan area to build trauma-informed homeless services. Experts in trauma and homelessness worked jointly to develop trauma-based training and consultation targeted specifically to the needs of homeless families. Trauma training was offered to all levels of program staff, from administrators to clinical case managers to family advocates. Staff participated in regular trauma team meetings that focused on both trauma-informed organizational change and trauma-focused case consultation. Trauma-informed programming was also instituted within shelter settings. This included community-building activities, an expressive music program, and self-care activities for residents. The goal of this program was to increase the staff's knowledge of traumatic stress, their skill level in responding to trauma-related issues, their self-efficacy about working with individuals and families who have been traumatized, and their awareness of issues related to vicarious trauma and burnout, and self-care. Initial evaluation results indicated positive outcomes, with high levels of support for the organizational shift to trauma-informed programming, increased staff confidence, fewer resident conflicts, better relationships among staff and residents, and fewer resident terminations.

Trauma-Informed Domestic Violence Shelters

- The *Domestic Violence (DV) and Mental Health Policy Initiative* in Chicago is working with the Department of Public Health, the Mayors Office, and several domestic violence shelters to create three "Centers of Excellence" for trauma and domestic violence. This pilot program will evaluate changes among organizations, providers, and survivors. The initiative is also developing a DV-Trauma Core Curriculum to assist providers in offering more trauma-informed services within domestic violence programs.

Trauma-Informed Homeless Outreach Programs

- *The Women's Violence Prevention Project Alliance* at the Friends of the Shattuck shelter in Boston is an outreach program for homeless men and women that is working towards becoming more trauma-informed. This program developed a manual to help providers and outreach workers build their understanding of trauma and learn how to respond appropriately to survivors. The manual also includes a safety-planning guide for use with individuals who are living on the streets.

Trauma-Informed Programs for Homeless Youth

- *Youth on Fire* is a drop-in center for homeless adolescents and young adults in Cambridge, Massachusetts. This program utilizes the Phoenix Rising model, an adaptation of ARC (Attachment, Self-regulation, and Competency model) for homeless and at-risk youth. Program staff members have received trauma training and continue to receive trauma consultation from the Trauma Center at Justice Resource Institute. They are working to modify their environment to become more trauma-informed. This program also offers trauma-specific group interventions.
- The *Community Trauma Treatment for Runaway and Homeless Youth* is a partnership among several agencies in the Los Angeles area that provides outreach and services to homeless youth. This program has utilized the ARC model to institute a philosophical shift towards becoming trauma-informed. They developed an ARC-based organizational self-assessment in order to target areas for change within participating agencies. They have also instituted trauma-informed case conference meetings in which ARC concepts are used for case review. Trauma-specific interventions have also been instituted within this program.
- *The Homeless Children's Network* is a consortium of fifteen homeless and domestic violence programs in San Francisco, California. This program provides therapy and case management to homeless children and their families. Their theoretical framework considers homelessness to be a traumatic stressor for children.

Trauma-Informed Treatment Programs for Homeless People with Co-Occurring Mental Health and Substance Use Problems

- The *Seeking Treatment and Recovery (STAR) Program* in Florida provides treatment for homeless people who are suffering from co-occurring mental illness and substance abuse. After determining that 79.5% of the homeless individuals served by their program acknowledged a history of physical or sexual abuse, this program began to make changes to become more trauma-informed. The program instituted a formal process of screening for trauma exposure. Based on the high level of trauma exposure reported by men, they expanded the trauma-specific services to include treatment for male survivors. The program also incorporated various training activities to raise trauma awareness and to build trauma-informed services [28].

Programs Utilizing a Trauma Framework for Veterans

- *Mary E. Walker House* is a transitional-living program for homeless women veterans in Coatesville, Pennsylvania, that focuses on recovery from trauma and substance abuse. This program includes a trauma framework and also offers trauma-specific services.

- The *Renew program* is a V.A. program in Long Beach, California, which serves both homeless and non-homeless women veterans who have experienced military sexual trauma, and often pre-military sexual trauma.
- *New Directions* is a V.A. program in Los Angeles, California, that offers substance abuse and mental health treatment utilizing a trauma framework. Its Women's Program offers trauma counseling, with 100% of clients reporting abuse. The Executive Director noted, "Most of our clients have experienced multiple traumas, including physical trauma as a child, military trauma and years of abuse on the streets and in prisons. Since veterans are known to have a higher degree of trauma than the general public, it would be most cost effective to begin to *treat trauma as the core disability* rather than separate and apart from all other symptoms" [53].

These program examples illustrate the beginning of a paradigm shift in which homeless services sites are recognizing the central role of trauma in the lives of consumers. These programs are being implemented in diverse settings including family-based shelters, domestic violence programs, outreach programs, dual diagnosis programs for homeless individuals, and programs for homeless youth and veterans. However, this shift is only beginning. Many programs do not yet recognize the central role of trauma. Guidance from state and federal initiatives is likely to facilitate broader awareness of the need for TIC within behavioral health systems and, more specifically, within homelessness services settings.

SELECTED STATE AND FEDERAL INITIATIVES TO ESTABLISH TIC

Over the past ten years, various state and federal policies have focused on the importance of establishing trauma-informed services within mental health and substance abuse settings. In 1998, the National Association of State Mental Health Program Directors (NASMHPD) issued a position statement on services and supports for trauma survivors, recognizing that "the psychological effects of violence and trauma in our society are pervasive, highly disabling, yet largely ignored." The statement articulated a commitment to address the issue of trauma. The report, *Models for Developing Trauma-Informed Behavioral Health Systems and Trauma-Specific Services,* defined "trauma-informed" and described programs that have implemented trauma-informed models on a statewide or local level [54]. NASMHPD also developed a Trauma Services Implementation Toolkit for State Mental Health Agencies [42] that describes products being used by various state agencies to work towards building trauma-informed systems. Although these policy documents are not directed towards homeless service systems, they provided momentum in the social-services fields towards incorporating knowledge of trauma into service systems.

Regional and national initiatives regarding the need for TIC within the homelessness field are even more recent. Within the past ten years, a number of homeless service organizations and coalitions have begun to emphasize the importance of addressing the impact of trauma among individuals experiencing homelessness, and several training and technical assistance centers have emerged that are actively promoting trauma-informed homelessness services.

The ***Homelessness Resource Center*** (HRC), a SAMHSA-funded program, provides resources, training, and technical assistance on issues affecting people who are homeless. Its mission is to improve the lives of people who are homeless and have been impacted by trauma, substance abuse, and mental health issues. One of HRC's guiding principles is to foster trauma-informed recovery systems. Through its website, the HRC disseminates tips, tools, and knowledge-based products that can be used by programs interested in implementing trauma-informed care. See www.homeless.samhsa.gov.

The ***National Center for Trauma-Informed Care***, funded by SAMHSA's Center for Mental Health Services (CMHS), offers educational materials, technical assistance, and training to social services systems to build an understanding of the impact of trauma and effective trauma-based interventions. In collaboration with the Homelessness Resource Center, the National Center for Trauma-Informed Care offers trauma-informed training to providers in the Gulf Coast recovery area. In addition, training in trauma-informed care has been offered to Projects for Assistance in Transition from Homelessness (PATH) programs.

The ***National Child Traumatic Stress Network*** (NCTSN), another SAMHSA-supported program, has focused on the impact of traumatic stress in the lives of children. The Network has been active in promoting trauma-informed care, including trauma awareness within homeless service settings for youth. ***The Homelessness and Extreme Poverty Working Group*** is a branch of NCTSN that devotes itself to the intersection of trauma, poverty, and homelessness in children.

The ***Department of Veterans Affairs*** offers specialized services to homeless veterans, and is increasingly addressing sexual trauma among female veterans. However, the ***National Coalition for Homeless Veterans*** noted that "with greater numbers of women in combat operations, along with increased identification of and a greater emphasis on care for victims of sexual assault and trauma, new and more comprehensive services are needed." The Coalition's 2007 public policy priorities include increasing homeless veterans' access to comprehensive, high-quality and affordable health care, including substance abuse and mental health care. Limitations still exist in the VA's policy on trauma-informed care for homeless veterans, particularly around the treatment of trauma (not necessarily combat-related) among male veterans.

The work of these initiatives has been integral to raising awareness of the need for trauma-informed homeless service systems. However, a large gap still remains between the recognition of trauma and the implementation of programs and policies that ensure available and accessible trauma-informed care for homeless individuals and families. Further advances in practice, programming, policy, and research are needed to develop evidence-based, trauma-informed care within homeless services across the country.

DISCUSSION

Our review of the current evidence suggested that, while there are challenges to implementing trauma-informed services, Trauma-Informed Care appears to be effective. We can conclude from research in other fields that, with necessary buy-in, TIC is well-received by consumers and providers, most likely leads to better outcomes, and does not cost significantly more than treatment as usual. Despite these promising findings, this review also highlighted what we *do not* yet know about TIC within homelessness services settings. There is a dearth of research on trauma-informed approaches specifically within homeless service settings. Most organizations that are working towards building trauma-informed homelessness service settings are collecting minimal or no information for evaluation purposes. The Homeless Families Program, a large quasi-experimental study examining trauma-informed services within homeless services, is an exception.

Initiated by the Substance Abuse and Mental Health Services Administration (SAMSHA) in 1999, the Homeless Families Program is the first large research study to examine integrated, trauma-informed care for homeless families with psychiatric disorders, substance use problems, and trauma histories. Each of the eight sites focuses on helping consumers understand the connection between their own trauma histories and their current issues; this education lays the groundwork for assisting consumers in developing new coping strategies and working to improve their parenting skills and relationships. The program also focuses on staff issues, including team-building, staff support, and self-care.

Although evaluation of the Homeless Families Program is still in progress, and final results are not yet available, preliminary findings have identified several factors that seem to be important for implementing trauma-informed services: 1) the trauma intervention approach should fit into the overall model and philosophy of the program; 2) programs should utilize strengths-based approaches in working with trauma survivors; 3) programs should encourage mutual respect and trustworthy behavior (e.g., following through on commitments); 4) programs should avoid punitive approaches, limiting rules and regulations to those ensuring safety; 5) staff should be encouraged to have realistic expectations about the progress that can be expected; 6) programs should engage survivors in the process of helping others (e.g., normalizing, empathizing, assisting, allowing transformative experiences); and 7) programs should maintain a nonjudgmental approach, while encouraging personal responsibility and the possibility of making better choices [55].

Clearly, although initial investigations are promising, the research to date is inadequate for evaluating the effectiveness of trauma-informed models within homeless service settings. Additional quantitative and qualitative research is needed to further explore trauma-informed practices specifically within homeless service settings. This research can be used to establish empirically-based best practices and will be the springboard for policy that can drive systems change in programs nationwide. Because the field is only beginning to generate research-based evidence on trauma-informed homelessness services, we have looked to the field for best practices and clinical wisdom in developing and implementing trauma-informed theories and practices.

RECOMMENDATIONS

This review documents the high rates of traumatic stress among people who experience homelessness and supports the need for developing trauma-informed services. While considerable progress has been made in increasing awareness of the impact of traumatic stress, the implementation of a widespread system of trauma-informed homeless services is in its early stages. Although this review highlights various innovative practices and programs that have been created in a wide array of settings for various subgroups of homeless people, they are relatively limited given the enormous need. Many program strategies and models are still being developed and piloted. Preliminary feedback from the homelessness arena and other service settings suggests that these approaches may be effective in producing better outcomes and promoting systems change. However, the evidence base supporting the effectiveness of these practices and programs is largely drawn from the corroborative literature.

The research base supporting the effectiveness of trauma-informed services within homeless settings is limited. Over the past decade, trauma-informed services have begun to be implemented in other fields, including mental health and substance use programs. With this implementation has come some robust quantitative and qualitative research. Quantitative research from these fields indicates that trauma-informed services are associated with improved outcomes, such as decreased mental health, trauma-related, and substance abuse symptoms and behaviors. Qualitative research from these fields has better described the meaning of trauma-informed care and has found that its implementation can be a challenging process, but that it can lead to systems changes that have positive impacts on both providers and consumers. Findings from these studies can inform best practices within the homelessness field.

Even with significant limitations in the research literature, we have learned important lessons about how we can best move ahead to make the homelessness service system more trauma-informed.

Practice

Despite the prevalence of trauma among individuals experiencing homelessness, many homeless service systems are not yet adequately addressing this issue. Greater uniformity and consistency of trauma-informed services for homeless individuals will aid in our understanding of the effectiveness of those practices.

Practice recommendations for building trauma-informed homeless services include the following:

1. Although a number of homeless services settings may be beginning to implement trauma-informed services, there is great variability in how these services are implemented. *Utilization of a theory-based model or framework* would help to ensure consistency across sites and help to begin to build evidence-based practices.

2. Programs should strive to *avoid any practices that may be retraumatizing.* This applies to all levels of the system, including administrative, provider, and consumer levels.

3. Homeless service systems should implement *universal systematic screening for trauma histories*, using standardized measures.

4. Program intake and evaluation should include an *assessment of consumer strengths and resources*. This contributes to the development of a strengths-based model and supports the further development of coping resources.

5. Because research has found that integration of services is a key factor in improving outcomes, it is recommended that *substance abuse, mental health, and trauma services be integrated*.

6. Programs implementing integrated trauma-informed treatment approaches should also include *trauma-informed services for children*, in order to increase resiliency in children and youth.

7. Because the majority of consumers in homeless service settings are trauma survivors, additional *trauma-specific services* should be made available for consumers who wish to receive targeted treatment.

8. Building on empowerment-based trauma theories emphasizing the importance of actively participating in service programs and rebuilding a sense of control, programs should support and encourage *consumer involvement*. Examples of consumer involvement include active goal-setting and crisis planning, peer-led services, leadership roles for consumers, and involvement in program design, evaluation, and refinement.

9. All trauma-informed services should be *culturally and linguistically competent.*

Programming

Our review of the theory, study, and practice of trauma-informed services underscored six steps that are essential when implementing a trauma-informed model, including:

1. Obtaining "buy-in" at multiple levels within the system

2. Conducting a needs assessment to identify areas for change

3. Reviewing the organization's environment, procedures, and services and revising them to become more aligned with the principles of trauma-informed care

4. Providing training on trauma

5. Offering ongoing trauma-based consultation and supervision

6. Providing access to trauma-specific interventions

These principles and implementation strategies are a starting point for any program wishing to implement trauma-informed services.

Beyond offering services that have a trauma-based framework, programming efforts are needed to establish agency-wide commitment to building trauma-informed services. Programming builds continuity among providers to establish the overall shift in program philosophy necessary for building trauma-informed services.

1. Homeless programs should integrate trauma awareness and responsiveness into their *program missions*.

2. There is a need to *operationalize the principles* of trauma-informed services, and to link these principles to quantitative, measurable changes that can be tracked and evaluated.

3. Guidelines should be developed for implementing a *trauma-informed model or framework* in homeless service settings.

4. Programs working for larger systems change towards a trauma-informed model should start with an *organizational self-assessment* in order to identify strengths and target areas for change.

5. Organizations should institute regular *internal and/or external reviews* to assess the degree to which their programs are trauma-informed.

6. Despite the fact that they work with trauma survivors on a daily basis, most staff members within homeless services are not trained about the impact of trauma or strategies for working with trauma survivors. Homeless services should implement *standardized training on understanding traumatic stress and working with trauma survivors*. Because these concepts are complex and cannot be adequately covered in one training, regular follow-up trainings should be offered.

7. A *consultation model* that is ongoing and responsive to specific needs should be utilized to reinforce concepts learned in trainings, as well as to help providers apply what they have learned to actual situations in their service settings.

8. *Regular supervision* should be offered in order to assist staff members in understanding the impact of trauma in particular situations, and to aid staff in recognizing and managing their own reactions.

9. Homeless services should design *trauma-informed environments*, including attention to issues of physical space, triggering materials, privacy/ confidentiality, and structure/ predictability.

10. *Policies and protocols* should be reviewed to ensure that they are consistent with a trauma-informed model and are not inadvertently retraumatizing.

11. Homeless service organizations should be *aware of and responsive to issues of job stress, burnout, and vicarious trauma* in providers. Programs need to have structures in place for prevention of, and early intervention for, vicarious trauma. In terms of prevention, it is recommended that organizations institute policies, programs, or activities that encourage *staff self-care and support*.

12. *Consumer involvement* is an integral part of a trauma-informed system. It is recommended that consumers of homeless services participate as active members in program development, operation, and evaluation. Some possibilities for this involvement include: *Town Hall meetings, consumer advisory boards, and peer-led groups*. Prescott [22] offers guidelines for integrating consumers into trauma-informed programs.

13. Services and programs should *promote cultural diversity and competency*.

Policy

The evidence on trauma-informed services in homeless settings is limited and there is a lack of clearly defined principles, definitions, and methods for establishing trauma-informed services. More research is needed to evaluate the process of developing trauma-informed services and to evaluate the effectiveness of trauma-informed services for homeless individuals. State and federal funding should be appropriated for examining evidence for trauma-informed interventions. The National Association of State Mental Health Program Directors (NASMHPD) has taken a first step in this direction by recommending that states establish financing criteria and mechanisms for funding best-practice trauma treatment models and services. However, these policy efforts should be expanded to include federal and local funding, and to include a focus on homeless service settings.

The current review of trauma-informed homeless services suggests a number of policies whose adoption is necessary to move the field further:

1. Policies should support homeless services that employ strategies to *prevent trauma exposure*, including the elimination of practices that are retraumatizing.

2. Policies should support increased capacity for *early detection of trauma* within homeless service settings.

3. *Mainstream services should be available and accessible* to individuals experiencing homelessness and should be responsive to the needs of trauma survivors.

4. Policies should guide the development and offering of *comprehensive, integrated, trauma-informed treatment* within homeless service settings.

5. Policies should prescribe and define *consumer involvement* in developing and evaluating homeless services.

6. Policies should ensure that *funding is available to develop and sustain trauma-informed care*.

7. Policies should ensure that services are designed to be *developmentally-appropriate,* and *culturally and linguistically competent*.

8. Trauma-informed homeless service policies need to be supported by larger systems guiding services for homeless individuals and families, including national, state, and local governmental, community-based groups, and non-profit organizations. Some of these systems include: the *U.S. Department of Health and Human Services, the U.S. Department of Veterans Affairs, the U.S. Departments of Housing and Urban Development, the U.S. Interagency Council on Homelessness, state-level councils to end homelessness, the National Alliance to End Homelessness, the National Health Care for the Homeless Council, the National Law Center on Homelessness and Poverty, the National Center on Family Homelessness,* and *the Homelessness Resource Center*.

Research

There is a paucity of research examining the effectiveness of trauma-informed services for homeless individuals and families. Most programs that have begun to institute trauma-informed practices have not tested their models for effectiveness. This may be due to financial constraints and to the fact that many programs are focused on direct service, as opposed to research.

1. Although research on trauma-informed services in the mental health and substance use fields is promising, *further research is needed on developing trauma-informed services within homeless service settings.*

2. Researchers and providers need to establish a *greater consensus about what constitutes a "trauma-informed service system."* Clearly defining what is meant by a "trauma-informed system" will create greater uniformity in research, increasing the ability to compare strategies for implementing trauma-informed systems.

3. *Methods to achieve trauma-informed systems* also need to be more clearly established. The conceptual framework established by a set of guiding principles should be behaviorally defined within a system. This allows fidelity measurements, indicating the degree to which a program is meeting the general standards for a trauma-informed program. Clearly defining methods will also lead to the possibility of a classification system delineating *varying levels of trauma-informed systems*.

4. Although a number of models or frameworks for building trauma-informed services have been developed, more evidence is needed to evaluate and refine these approaches. Thus, additional research is needed to *evaluate trauma-informed models* within homeless settings. It is recommended that additional research within the homelessness arena be conducted using models such as ARC, CARE, A Long Journey Home, Sanctuary, and Using Trauma Theory to Design Service Systems.

5. The *corroborative evidence* that is available offers a clear starting point for future research on trauma-informed homeless services. Additional *qualitative research* is needed to more clearly define the process of offering trauma-informed services, while *quantitative studies* should follow after models have been clearly defined and described. These should examine the outcomes of trauma-informed interventions.

6. Additional research is needed to distinguish the *relative contribution of trauma-informed care, versus trauma-specific services*. The majority of the research to date on trauma-informed care has also included trauma-specific services. While clinically this makes intuitive sense, research is needed to evaluate what specific factors are leading to change within these systems.

7. Additional research is required on the needs of *special populations* who are homeless. For instance, additional research is needed to determine how trauma-informed care should be adapted to meet the unique issues faced by youth, veterans, individuals from other countries, individuals of different ethnic backgrounds, and LGBT individuals who are experiencing homelessness.

Trauma-informed homeless services offer a promising new area for increasingly effective and sensitive service approaches for highly vulnerable people. Because many, if not all, homeless individuals have been exposed to high levels of traumatic stress, it is essential that homeless service systems develop sensitivity and responsiveness to post-trauma responses among the people they serve. More efforts are needed in terms of practice, programming, policy, and research to continue to build empirically-based, effective models of trauma-informed care for people who are struggling daily to exit homelessness.

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CONFLICT OF INTEREST

Authors work within organizations that developed some of the models reviewed (e.g. organizational assessments, ARC model, Phoenix Rising).

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APPENDIX 1

Traumatic Stress and Homelessness

> "*Homelessness deprives individuals of…basic needs, exposing them to risky, unpredictable environments. In short, homelessness is more than the absence of physical shelter, it is a stress-filled, dehumanizing, dangerous circumstance in which individuals are at high risk of being witness to or victims of a wide range of violent events*" [1].

Researchers have documented that the rates of traumatic stress are extremely high, and may even be normative, among those experiencing homelessness. Individuals who are homeless may have been exposed to neglect, psychological abuse, physical abuse, or sexual abuse during childhood; community violence; sexual assault; combat-related traumas; domestic violence; and accidents or disasters. A literature review found consistent and well-documented evidence of high levels of multiple forms of traumatic stress within individuals and families who are homeless. It is clear that trauma affects people of every gender, age, race, sexual orientation, and background within homeless service settings. No one is immune. The following data highlight this point:

Men

- More than 2/3 of men in a dual-diagnosis treatment program for homeless people reported a *history of trauma -- either physical or sexual abuse* [28].
- More than 1/4 of homeless men were *assaulted in the past year* [56].
- Homeless men within substance treatment programs have a high prevalence of *depression, family dysfunction, trauma, and multiple previous treatment experiences* [57].
- Despite the fact that men comprise the majority of homeless people and are frequently exposed to trauma, homeless men are *less likely to receive social services* than homeless women [58], with less effort directed towards understanding the impact of trauma for this population.

Women/Mothers

- Although many people think of men when they consider the issue of homelessness, families—typically single mothers with young children—now comprise up to 40% of the overall homeless population [59].
- Trauma is extremely prevalent among homeless women: *over 90% of homeless mothers report having experienced severe physical or sexual assault* during their lifetimes [60].
- The majority of homeless mothers were *abused during childhood*, with nearly 2/3 reporting severe physical abuse and 42% reporting sexual abuse; 60% were abused before the age of twelve [2].
- More than 70% of homeless mothers have at least one *childhood risk factor*, including: severe physical abuse, unwanted sexual contact, having a parent who was mentally ill or who abused substances, running away for a week or more, or being in foster care [61].
- Homeless mothers are also frequently the *victims of abuse during adulthood*, with 61% reporting a history of domestic violence and 32% acknowledging recent domestic violence [2].
- Homelessness puts women *at risk for assault*; being homeless was associated with more than three times the risk of sexual assault for women [56].
- Homelessness and victimization are associated with adverse mental health outcomes: more than 50% of homeless mothers reported *depression*, and more than 40% reported *posttraumatic stress disorder* (PTSD)

[62], and were three times as likely as housed women to suffer from PTSD [63].

Children and Youth

- *Child abuse* is associated with high-risk behaviors in adolescents, such as truancy and running away, that may lead to homelessness [64]. Almost 3/4 of girls on the streets report that they were *forced to run away from violence at home* [65].
- Homeless children and youth are *at risk for further victimization*, such as repeated abuse, exposure to violence, and forced prostitution [66].
- *86% of homeless youth report exposure to trauma*, with almost 2/3 reporting exposure to multiple traumatic events; physical assaults are prevalent for young men, while sexual/physical abuse is common among young women [67].
- Homeless children are at increased risk for *medical, emotional, behavioral, and academic problems*, including post-trauma responses, insecure attachments, and difficulty learning [60, 68, 69].

Elderly

- The elderly make up a relatively lower percentage of the homeless population, only 2% [70]; however, elderly homeless persons are *more vulnerable to victimization*, have *more health problems*, and may be *less likely to receive needed social services and protection from law enforcement* [71].
- In 2006, 27% of the homeless victims of violent crimes were between 50-59 years of age [9].

Veterans

- Veterans are disproportionately represented in the homeless population, with veterans making up 23% of all homeless people in the U.S. [72].
- The *majority of women in homeless veteran programs have serious trauma histories*, including being physically harassed, sexually harassed, or raped while in the military [73].
- One-quarter or more of homeless veterans manifest *symptoms of PTSD*; 76% experience *alcohol, drug, or mental health problems* [74].
- *Trauma and related distress are related to relapse and rehospitalization* of homeless veterans who have substance abuse problems, particularly for female veterans [75].

Minorities

- *Minorities are over-represented* among the homeless population, with almost half being African-American [4].
- Families of color also *disproportionately experience trauma* [50].

Lesbian, Gay, Bisexual, & Transgendered (LGBT) Individuals

- 40% of homeless youth identify as LGBT.
- One-third of LGBT youth are *assaulted after disclosing their sexual orientation*; 40% to 60% of homeless youth cited *physical abuse as a reason for leaving home* [76].
- Thirty-three percent of transgendered individuals reported that they had been *physically or sexually assaulted in the past year* [56].

These statistics suggest that it is reasonable to assume that the majority of homeless individuals have been exposed to traumatic stress. Most people experiencing homelessness have been victimized one or more times in their lives. For many people, abuse began during childhood; in fact, developmental trauma with disrupted attachments may provide the subtext for the stories of many people's pathways towards homelessness [2]. Violence continues into adulthood for many people, with abuse such as domestic violence often precipitating homelessness [3-5], and with homelessness leaving people vulnerable to further victimization. In fact, homelessness has been suggested to be a traumatic event in and of it, compounding the psychological impact of the myriad risk factors often experienced by people who are homeless [77]. Based on this assumption, we can conclude that individuals experiencing homelessness are, by definition, trauma survivors, demonstrating the urgency of addressing trauma within this population.

Another reason that it is important to address trauma within homelessness service settings is that victimization is associated with repeated episodes of homelessness. Research has found that people who experienced repeated homelessness were more likely than people with a single episode of homelessness to have been abused, often during childhood. First-time homeless mothers who experienced domestic violence were more than three times as likely to become homeless again [6]. These findings suggest that we will be unable to solve the issue of homelessness without addressing the underlying trauma that is so intricately interwoven with the experience of homelessness.

As can be seen from this description, the relationship between trauma and homelessness is complex, with traumatic stress being a possible core factor increasing vulnerability to homelessness, and with homelessness leaving individuals more vulnerable to further victimization. There is also a complex and multi-directional relationship between trauma, substance abuse, mental illness, and homelessness. All these factors need to be addressed in services for homeless men, women, children and youth, the elderly, minorities, veterans, LGBT individuals, and other people.

APPENDIX 2

The Impact of Trauma

Traumatic stress can be devastating and long-lasting. To develop an understanding about how to build trauma-sensitive services, we need to first clearly understand that the impact of traumatic stress can be devastating and long-lasting, interfering with a person's sense of self, and sense of safety, leading to feelings of helplessness, terror, and disempowerment. Traumatic exposure may lead to responses

Table 3. How Common Trauma Reactions May Explain Some "Difficult" Behaviors or Reactions Within Homeless Service Settings

"Difficult" Behaviors or Reactions within Homeless Service Settings	Common Trauma Reactions
Has difficulty getting motivated to get job training, pursue education, locate a job, or find housing	Depression and diminished interest in everyday activities
Complains that the setting is not comfortable or not safe, appears tired and poorly rested. Is up roaming around at night.	Nightmares and insomnia
Perceives others as being abusive, loses touch with current-day reality and feels like the trauma is happening over again	Flashbacks, triggered responses
Avoids meetings with counselors or other support staff, emotionally shuts down when faced with traumatic reminders	Avoidance of traumatic memories or reminders
Isolates within the shelter, stays away from other residents and staff	Feeling detached from others
Lacks awareness of emotional responses, does not emotionally respond to others	Emotional numbing or restricted range of feelings
Is alert for signs of danger, appears to be tense and nervous	Hyper-alertness or hypervigilance
Has interpersonal conflicts within the shelter, appears agitated	Irritability, restlessness, outbursts of anger or rage
Has difficulty keeping up in educational settings or job training programs	Difficulty concentrating or remembering
Becomes agitated within the shelter. Is triggered by rules and consequences. Has difficulty setting limits with children.	Feeling unsafe, helpless, and out of control
Has difficulty following rules and guidelines within the shelter or in other settings. Is triggered when dealing with authorities. Will not accept help from others.	Increased need for control
Feels emotionally "out of control." Staff and other residents become frustrated by not being able to predict how he or she will respond emotionally	Affect dysregulation (emotional swings – like crying and then laughing)
Seems spacey or "out of it." Has difficulty remembering whether or not they have done something. Is not responsive to external situations.	Dissociation
Complains of aches and pains like headaches, stomachaches, backaches. Becomes ill frequently.	Psychosomatic symptoms, impaired immune system
Cuts off from family, friends, and other sources of support	Feelings of shame and self-blame
Has difficulty trusting staff members; feels targeted by others. Does not form close relationships in the service setting.	Difficulty trusting and/or feelings of betrayal
Complains that the system is unfair, that they are being targeted or unfairly blamed	Loss of a sense of order or fairness in the world
Puts less effort into trying--does not follow through on appointments, does not respond to assistance	Learned helplessness
Invades others' personal space or lacks awareness of when others are invading their personal space	Boundary issues
Has ongoing substance abuse problems	Use of alcohol or drugs to manage emotional responses
Remains in an abusive relationship or is victimized again and again	Revictimization (impaired ability to identify danger signs)

including Posttraumatic Stress Disorder (PTSD) and Complex Trauma.

Posttraumatic Stress Disorder (PTSD) refers to a group of symptoms that some individuals experience after overwhelming, frightening, or horrifying life experiences that exceed their capacity to cope. PTSD includes intrusive symptoms such as triggered memories or nightmares, avoidance symptoms such as social withdrawal, constriction, and emotional numbing, and symptoms of hyperarousal such as concentration problems, irritability, and constant alertness for danger.

Exposure to chronic interpersonal trauma such as child abuse or domestic violence may have an even more extensive impact on the survivor, sometimes referred to as "Complex PTSD," or "Disorders of Extreme Stress, Not Otherwise Specified" (DES-NOS). Survivors with Complex PTSD have difficulty regulating their internal states, including their emotional states and their physiological reactions. Their emotions sometimes shift rapidly, leaving them feeling helpless in the face of overwhelming emotion. Their bodies are easily activated, resulting in anxiety, panic, or terror. At other times, they have dissociative responses in which their bodies or emotions shut down and they become numb. Triggered responses, reactions to reminders of the trauma, are also common. In Complex PTSD, the traumatic experiences impact the survivor's sense of self; survivors often blame themselves for their abuse, feeling damaged and ashamed. Individuals who have experienced chronic interpersonal trauma often have problems sustaining supportive relationships, such as difficulty trusting others or problems establishing clear boundaries and setting limits with others. This increases their vulnerability to retraumatization, and interferes with the development of adequate social networks for support in times of crisis. Individuals with Complex PTSD may have impaired

immune system functioning and may experience poor physical health. They often have difficulty maintaining attention and concentration and may have memory problems. Their belief systems about the world are also altered and they often feel unsafe [78-80].

In describing the link between trauma exposure and homelessness, Browne [2] wrote, "it seems probable that, for some homeless women, the effects of early violence or molestation by intimates decreased their supportive networks and increased their risk of becoming homeless later in life." Thus, exposure to traumatic stress may increase people's vulnerability to becoming homeless in certain situations, and conversely, traumatic stress reactions may make it more difficult to cope with the stresses inherent in being homeless.

Homeless service providers who lack a basic knowledge of trauma will not have a context for understanding trauma-based reactions. Table **3** illustrates behaviors sometimes seen in homeless service settings that can be confusing or frustrating for providers or other consumers; column two of the chart demonstrates how each of these behaviors may be explained in the context of common reactions to traumatic stress. This chart highlights the need for understanding trauma within homeless service settings.

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An Introduction to Trauma Informed Care

Creating Physically and Emotionally Safe Environments for Clients, Families and Staff

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Holly Murphy, MN, RN BScN, CPMHN(c), Clinical Project Leader for Trauma Informed Care

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Trauma Informed Care Launch

February 3,4,5, 2016

IWK Health Centre

Welcome and Agenda

- Welcome! Thank you for attending!
- Introduction to Trauma Informed Care
- Creating Cultures of Trauma Informed Care
- Break
- Staff Support in Human Service Settings: An Essential Element of Trauma Informed Programs
- Moving Toward Becoming a Trauma Informed Organization
- Logo and Website Launch

Purpose of Today's Session

- To provide foundational information about Trauma Informed Care (TIC) and associated staff support as we start our 3-5 year journey toward becoming a trauma informed organization.

Objectives

- To introduce you to the key concepts and principles of trauma and trauma informed care.
- To discuss how to create a culture of trauma informed care.
- To discuss how organizations can support staff experiencing stress, burnout, and/or vicarious trauma.
- To describe specific ways in which organizational responses, professional responses and personal responses contribute to a psychologically safe and healthy workplace.
- To describe the IWK's process/plan toward becoming trauma informed.

Types of Stress

- **Positive stress**
- **Tolerable stress**
- **Toxic stress**

What is trauma?

- Definition

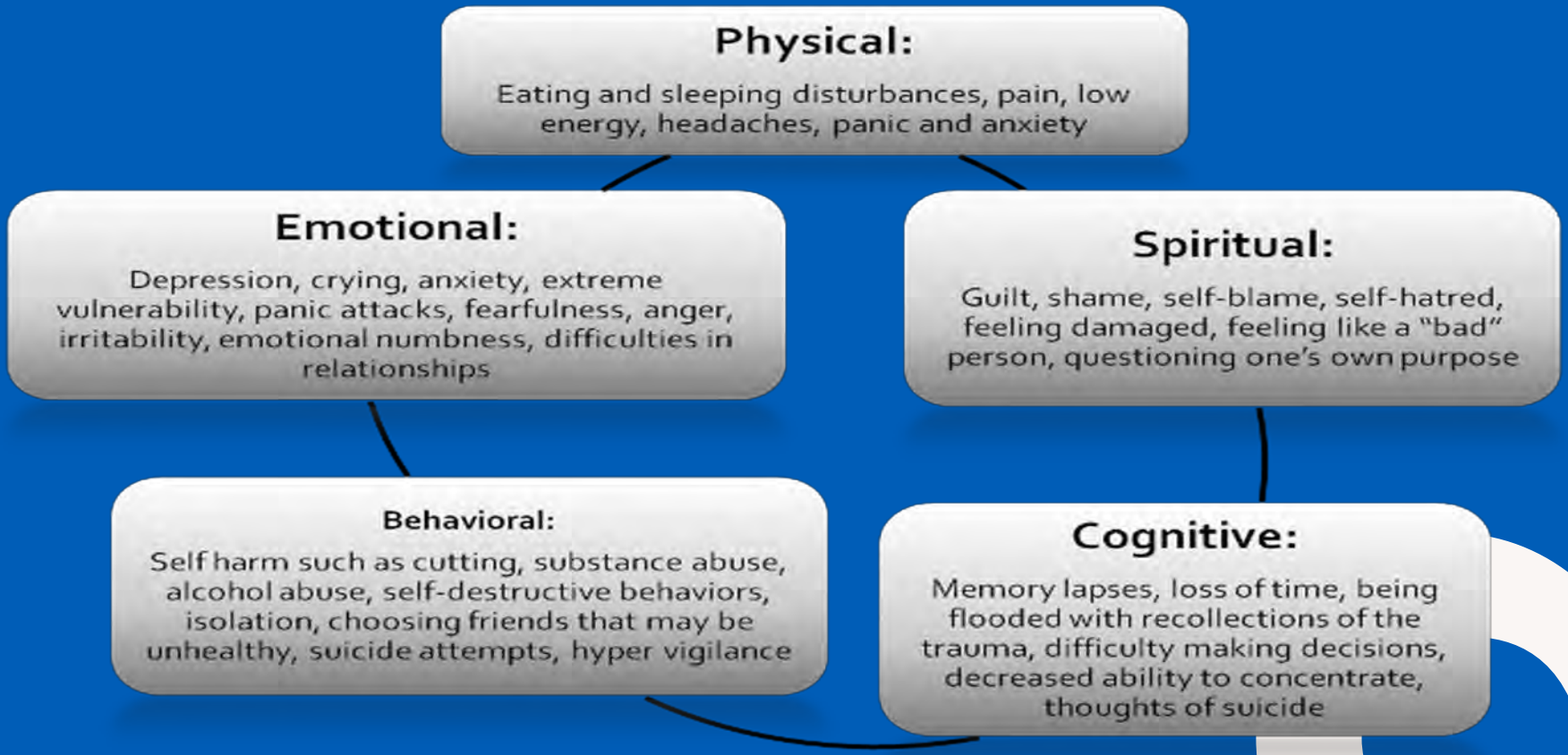
  Trauma can be anything that results from experiences that overwhelm an individual's capacity to cope. Trauma can result from abuse and neglect, family conflict, poverty, having a life-threatening illness, undergoing repeated and/or painful medical interventions, accidents, witnessing acts of violence, grief and loss, intergenerational events, etc.

  (Adapted from BC MHSU, 2013)

Some Different Types of Trauma

- **Acute trauma**
- **Repetitive trauma**
- **Complex trauma**
- **Complex Developmental trauma**
- **Vicarious trauma**
- **Cultural, historical and/or**
  Intergenerational trauma

Effects of Trauma



(Figure taken from N. Poole, Building a Trauma-Informed Practice Framework, 2014).

Resiliency and Recovery

"In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways."

Resilience Research Centre. Retrieved from: resilienceresearch.org (See also Ungar, 2008 and Ungar, 2011).

Resiliency and Recovery

https://www.youtube.com/watch?v=cqO7YoMsccU

Center on the Developing Child. Harvard University. Retrieved with permission from http://developingchild.harvard.edu/science/key-concepts/resilience/

How Common is Trauma?

- A large body of research estimates that between 55-90% of the population has experienced one or more forms of trauma in their lives (CDC & Kaiser Permanente, 1995-2011; Harris & Fallot, 2009; Farro et al., 2011).

- In a Canadian study, 76% of participants identified being exposed to at least 1 traumatic event in their lifetime (Van Ameringen et al., 2008)

- In a community-based mental health clinic in the US, researchers found that 90% of their 505 clients had been exposed to trauma (Cusack et al., 2004).

- As such, we need to presume the clients we serve and our staff members may have a history of traumatic stress and exercise “universal precautions” (Hodas, 2005)

Trauma Informed Care Definition

TIC is a strengths-based service delivery approach that is rooted in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and clients.

(Hopper, Bassuk, & Olivet, 2010)

TRAUMA INFORMED CARE (TIC)

DEFINITION

Being trauma informed is about creating safety and trustworthiness within health care practices, our physical/emotional environments and daily interactions with clients, families and staff.

PRINCIPLES

Awareness

Safety

Trustworthiness

Choice

Collaboration

Skills Building

Why We're Becoming Trauma Informed

Optimizing Patient Experience

- To be proactive, prevention focused and strengths based
- To create and sustain ingredients for Patient and Family Centered Care: choice, power and control
- To reduce the possibility of re-traumatization
- To reduce negative encounters and events (seclusion and restraint)
- To increase client and family satisfaction
- To reduce unnecessary costs and reduce the need for unnecessary interventions

Engaged Workforce

- To support engagement of the work force through support for self care
- To increase success/performance and job satisfaction
- To reduce sick time
- To reduce negative encounters and events which may lead to burn out and/or vicarious trauma.

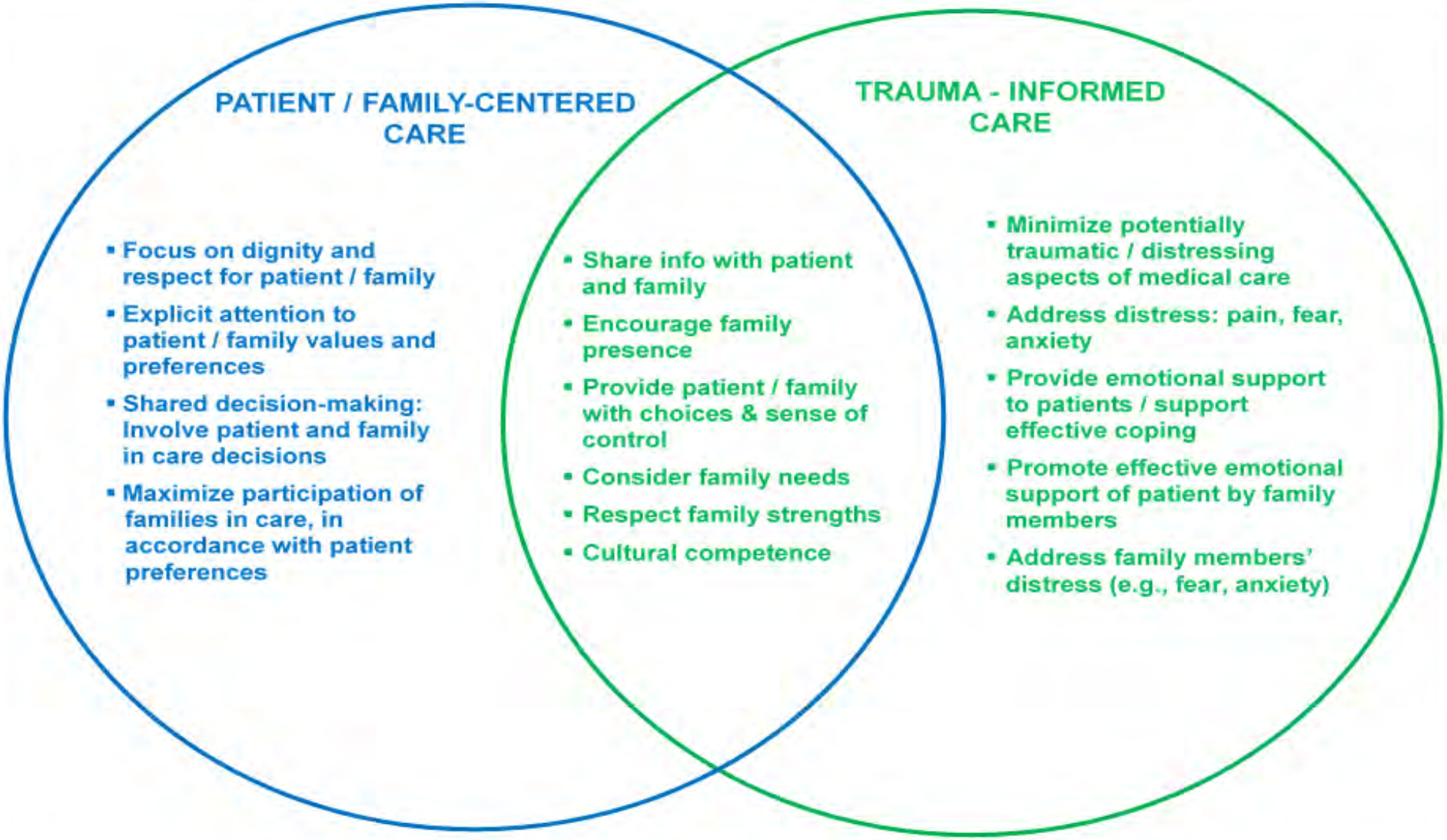
(Barton, Johnson & Price, 2009; Hodas, 2006; modified from National Council for Behavioral Health, 2013)

Evidence-Based Benefits

- Reduced trauma symptoms, drug use severity and mental health symptoms (Moses et al., 2003)
- Increased effectiveness of services – in engagement, retention, and outcomes (SAMHSA, 2011)
- Cost effective treatment (Community Connections, 2005)
- Decreased patient use of acute care and crisis services (SAMHSA, 2011)
- Increased organizational outcomes, such as: enhanced staff skills and morale; more collaboration within and outside their agencies; reduced vicarious trauma; fewer negative events
  (Hopper, Bassuk, Olivet, 2010)

(List adapted from: Trauma Matters Report, 2012)

Complimentary Approaches



www.healthcaretoolbox.org

Examples of TIC applicability

- Many medical interventions are traumatizing or re-traumatizing for clients and families.
- Recognizing the impact trauma, sexual abuse or domestic violence, can have as women experience prenatal care and child birth.
- Creating a safe and secure environment that supports disclosure of trauma.
- Recognizing the traumatic impact of seclusion and restraint.
- First contact staff
- Designing spaces that are trauma informed.

Community Connections

Creating Cultures of Trauma-Informed Care

Lori L. Beyer, LICSW

Community Connections

Community Connections

Community Connections

- Community mental health center in Washington DC
  - Serve 3000 adults, 800 children and adolescents
  - Substance addiction, homelessness, legal involvement, medical conditions
- Developed Trauma Recovery and Empowerment Model (TREM), published in 1998
- Trauma specific work led to our development of trauma informed initiative
- Consult to agencies/organizations/states all across US and in Canada

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

A Culture Shift: Scope of System Change

- Involves all aspects of program activities, setting, relationships, and atmosphere (more than implementing new services)
- Involves all groups: administrators, supervisors, direct service staff, support staff, and consumers (more than service providers)
- Involves making trauma-informed change into a new routine, a new way of thinking and acting (more than new information)

Community Connections

A Culture Shift: Changes in Understanding and Practice

- Thinking differently as a prelude to acting differently
- Thinking differently initiates and sustains changes in practice and setting
- Acting differently reinforces and clarifies changes in understanding

Community Connections

Changes in Understanding: Trauma-Informed Services

- Trauma-informed vs. trauma-specific
- Trauma-informed services:
  - Incorporate knowledge about trauma—prevalence, impact, and the diverse paths to recovery—in all aspects of service delivery and practice
  - Are hospitable and engaging for people who have experienced trauma
  - Minimize revictimization: “do no harm”
  - Facilitate healing, recovery, empowerment
  - Emphasize collaboration throughout the system

Community Connections

Changes in Understanding: Why Trauma-Informed Services?

- Trauma is pervasive
- Trauma's impact is broad and diverse
- Trauma's impact is deep and life-shaping
- Trauma, especially interpersonal violence, is often self-perpetuating
- Trauma differentially affects the more vulnerable
- Trauma affects how people approach services
- The service system has often been re-traumatizing
- Staff members are deeply affected by systemic stressors

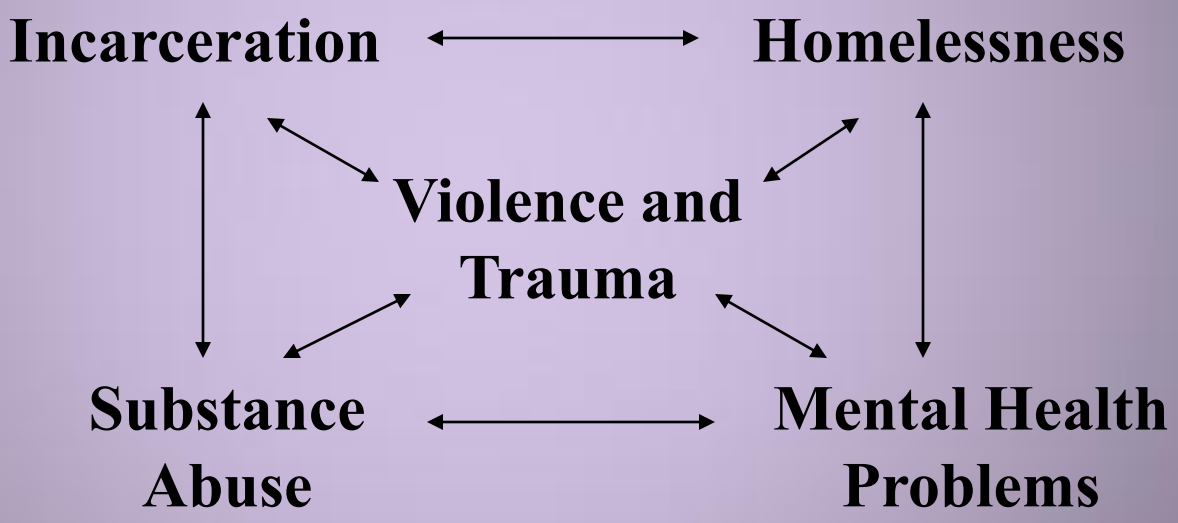
Community Connections

Is Trauma-Informed Care a Fad?

- History of TIC
  - SAMHSA Matrix: Trauma as Cross-Cutting Principle; Women, Co-Occurring Disorders, and Violence Study; National Center for Trauma-Informed Care; NCTSN
  - Harris, M. & Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
  - NASMHPD Initiatives
- Current Initiatives
  - Federal: inclusion in RFAs
  - States: State Public Systems Coalition on Trauma

Community Connections

Changes in Understanding: The Centrality of Trauma



Community Connections

Changes in Understanding: The Paradigm Shift

- Understanding of Trauma
- Understanding of the Individual Who Has Experienced Trauma
- Understanding of Services
- Understanding of the Service Relationship

Community Connections

Traditional Human Services Paradigm

- Understanding of Trauma
  - PTSD as organizing model
  - The impact of trauma is seen in predictable and obviously related domains of functioning
  - Trauma is viewed as a discrete event
  - The impact of trauma follows a definable course with specifiable time limits

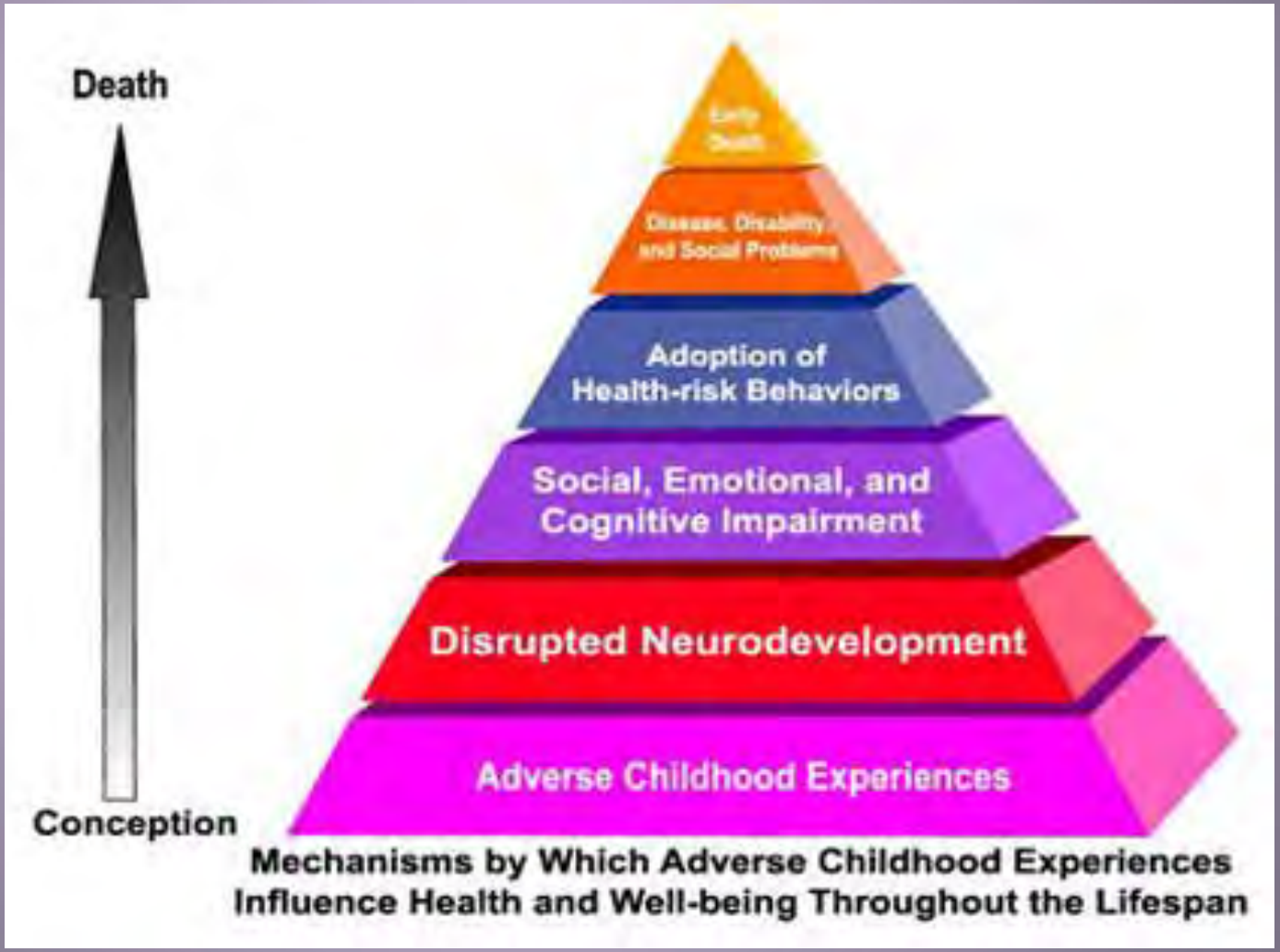
Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Trauma
  - Traumatic events are not rare; experiences of life disruption are pervasive and common
  - The impact of trauma is seen in multiple, apparently unrelated life domains
  - Repeated trauma is viewed as a core life event around which subsequent development organizes
  - Trauma may begin a complex pattern of actions and reactions which have a continuing impact over the course of one's life

Community Connections

Adverse Childhood Experiences (www.ACEstudy.org)



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Community Connections

Traditional Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - Each separate service system has its own view of the individual and her or his problems
  - The “problem” is understood as an individual difficulty independent of context
  - The problem and the symptom are synonymous
  - The individual is often attributed either too little or too much responsibility

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - An integrated, whole person view of both the individual and his or her challenges
  - A contextual, relational view of both challenges and solutions
  - Symptoms understood not merely as problems but primarily as attempts to cope and survive; “symptoms” may be “solutions”
  - Appropriate allocation of responsibility

Community Connections

Traditional Human Services Paradigm

- Understanding of Services
  - The primary goals of services are stability and the absence of symptoms or social problems
  - Services are often reactive rather than proactive
  - Service time limits are economically and administratively driven

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Services
  - Primary goals are growth, empowerment, resilience, and life skill development
  - Service priorities are prevention driven
  - Service time limits are determined by the individual's needs

Community Connections

Traditional Human Services Paradigm

- Understanding of the Service Relationship
  - The individual is seen as passive recipient of services
  - The individual's safety and trust are taken for granted
  - Provider/patient relationships remain uniformly hierarchical

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Service Relationship
  - Both patient and service provider have a unique and valuable perspective
  - Patient voices need to be drawn out in empathic relationships, sensitized to the silencing impact of trauma
  - The individual's safety must be guaranteed and trust must be developed over time
  - Service relationships involve appropriate collaboration

Community Connections

Changes in Practice: Protocol for Developing a Trauma-Informed Culture

- Services-level changes
  - Service procedures and settings
  - Formal service policies
  - Trauma screening, assessment, service planning, and trauma-specific services
- Systems-level/administrative changes
  - Administrative support for program-wide trauma-informed culture
  - Trauma training and education
  - Human resources practices

Community Connections

Changes in Practice: Reviewing Service Procedures and Settings

- 1) Identify formal and informal activities and settings; specify sequence of events
- 2) Ask key questions about each activity and setting
- 3) Prioritize goals for change
- 4) Identify specific objectives, responsible person(s), and allotted time

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

Safety: Physical and Emotional Safety

- To what extent do service delivery practices and settings ensure the physical and emotional safety of patients?
- How can services and settings be modified to ensure this safety more effectively and consistently?

Community Connections

Where is the "here" in this quote?

"If people don't feel safe here, nothing else is going to happen."

http://www.youtube.com/embed/Pwghabw4N80?rel=0

Community Connections

Denial Stops Here!

Community Connections

Optimism Lives Here!

We Believe in Kids!

Community Connections

"You are entering a safe and special place"

Community Connections

From wherever you are,
enter and be welcome.

Community Connections

Trustworthiness: Clarity, Consistency, and Boundaries

- To what extent do current service delivery practices make the tasks involved in service delivery clear? Ensure consistency in practice? Maintain boundaries, especially interpersonal ones, appropriate for the program?
- How can services be modified to ensure that tasks and boundaries are established and maintained clearly, consistently, and appropriately?

Community Connections

Learning from the Remodelers

Community Connections

Choice: Consumer Choice and Control

- To what extent do current service delivery practices prioritize patient experiences of choice and control?
- How can services be modified to ensure that patient experiences of choice and control are maximized?

Community Connections

"An Ounce of Choice is Worth a Pound of Cure"

- Patient preferences in routine practice
- Patient preferences in crisis
- Small choices can have big consequences

Community Connections

Collaboration: Collaborating and Sharing Power

- To what extent do current service delivery practices maximize collaboration and the sharing of power between providers and patients?
- How can services be modified to ensure that collaboration and power-sharing are maximized?

Community Connections

"All Abuse is the Abuse of Power"

- Doing to
- Doing for
- Doing with

Community Connections

Empowerment: Recognizing Strengths and Building Skills

- To what extent do current service delivery practices prioritize patient empowerment, recognizing strengths and building skills?
- How can services be modified to ensure that experiences of empowerment and the development or enhancement of patient skills are maximized?

Community Connections

A Starbucks Customer Satisfaction Survey Story

- Was your drink prepared properly?
- Did anyone greet you by name?
- Was your visit to Starbucks _____?

(fill in the blank)

Community Connections

Changes in Practice: Revisiting the Core Principles Yet Again—for Staff this Time

- Safety: How can we ensure physical and emotional safety for staff members throughout our system of care?
- Trustworthiness: How can we maximize trustworthiness as administrators and supervisors? Make tasks and procedures clear? Be consistent?
- Choice: How can we enhance staff members' choice and control in their day-to-day work?
- Collaboration: How can we maximize collaboration and sharing of power with staff members?
- Empowerment: How can we prioritize staff empowerment and skill-building at every opportunity? Provide resources?

Community Connections

Review of Formal Policies

- Confidentiality policies are clear and shared with patients
- Policies avoid involuntary or coercive elements of treatment
- De-escalation policy is formalized and minimizes possibility of retraumatization
- Program prioritizes patient preferences in responding to crises (e.g., use of preference forms)
- Program has clearly written, accessible statement regarding patient rights and grievances

Community Connections

Trauma Screening, Assessment, Service Planning, and Trauma-Specific Services

- Universal trauma screening
- Follow-up with appropriate assessment of trauma exposure history and impact
- Include trauma-based information in collaborative, person-centered recovery planning
- Offer, or link to, trauma-specific services

Community Connections

Administrative Support for Trauma-Informed Culture

- Support for the integration of knowledge about trauma into all aspects of agency functioning
- Possible indicators:
  - Formal policy or mission statements
  - Developing a “trauma initiative”
  - Making resources available
  - Active administrator participation

Community Connections

Trauma Training and Education

- General trauma education for all staff (including administrators and support staff)
  - Recognize trauma dynamics; avoid retraumatization; understand range of coping behaviors; boundaries
- Clinical trauma education for direct service staff
  - Modifications for their specific areas; trauma-specific interventions; staff self-care

Community Connections

Human Resources Practices

- Hiring or identifying “trauma champions”
  - Knowledgeable about trauma; prioritize trauma sensitivity in service provision; communicate importance of trauma
- Including trauma content in interviews of prospective staff
  - Knowledge about trauma, trauma sequelae, and recovery
- Including trauma-related activities in performance reviews

Community Connections

Conclusion

- What we know about trauma, its impact, and the process of recovery calls for trauma-informed service approaches
- A trauma-informed approach involves fundamental shifts in thinking and practice at all programmatic levels
- Trauma-informed services offer the possibility of enhanced collaboration for all participants in the human service system

Community Connections (www.ccdc1.org): Materials for "Creating Cultures of Trauma-Informed Care"

- Harris, M. and Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
- "CCTIC Program Self-Assessment and Planning Protocol"
- "CCTIC Program Self-Assessment Scale"
- "CCTIC Program Services Implementation Form"

Community Connections

15 min Break

Enjoy!!!

Staff Support in Trauma Informed Programs

Lori L. Beyer, LICSW
Community Connections
Washington, DC

Staff Support and Well-Being

Understanding trauma-informed change as a "cultural" and "systemic" process means:

- Support and care for entire staff is essential, not an option or luxury
- Staff support is an organizational obligation as well as a "personal" or "professional" concern
- In stressed systems, trauma is a literal and figurative reality for many administrators and staff
- In such settings, we can apply much of what we know about trauma and recovery to the agency or program as a whole

The Basic Lesson

Staff members—all staff members—can create a setting of, and offer relationships characterized by, safety, trustworthiness, choice, collaboration, and empowerment only when they experience these same factors in the program as a whole. It is unrealistic to expect it to be otherwise.

A Culture Shift: The Core Principles of a Trauma-Informed System of Care (Revisited)

- Safety: Ensuring staff physical and emotional safety
- Trustworthiness: Maximizing trustworthiness of the system and making staff tasks clear
- Choice: Enhancing staff choice and control
- Collaboration: Maximizing collaboration and sharing of power with staff
- Empowerment: Prioritizing staff empowerment and skill-building

Name that Stressor

Some Common Stressors in Human Services

- Goals/demands exceed resources: do more with less
- Conflicting obligations or expectations
- Ambiguous standards for success
- Physical danger
- Emotional challenges, including vicarious trauma
- Few staff supports

Adapted from Russo, 2007

Vicarious Trauma and Burnout

- Vicarious Trauma (Compassion fatigue): Client-related flashbacks, troubling dreams, intrusive thoughts, sudden recall of frightening experiences, losing sleep
- Burnout: Work-related feelings of being trapped, hopeless, tired, depressed, worthless; unsuccessful at separating work from personal life

Adapted from Adams et al., 2006

Levels of Work-Related Stress

- Organizational: budget constraints; limited leave, supervision, physical resources (space, e.g.); increased caseloads
- Professional: beliefs about empathy, independence, and stoicism; number of education/consultation events
- Personal: personal trauma history; ineffective coping attempts; current stressors in personal life

Adapted from Russo, 2007

A Multi-Level Response to Stress

- Organizational: what the agency, program, or setting can do to support staff
- Professional: what the staff member and agency can do to enhance professional and work-related strengths
- Personal: what the staff member and agency can do to enhance personal well-being

Psychologically Healthy Workplaces

- Employee involvement
- Work-life balance
- Employee growth and development
- Health and safety
- Employee recognition

American Psychological Association, 2007

Toxic vs. Healthy Work Cultures

Adapted from Kahn & Langlieb, 2003 and Russo, 2007

- People do not help each other.
- Human needs are ignored.
- People feel alienated and dehumanized.
- Alternative approaches are met with derision.
- Cliques are common.
- There is systemic rigidity; boss is always right.

- Workers know what is expected of them.
- They have the resources to do the work.
- They have daily opportunities to do what they do best.
- Praise is offered regularly.
- Personal and professional development is encouraged.

What Helps? Organizational Responses

- Supervision/consultation/case discussion
- Time off for staff
- Education/training/new skills
- Opportunities to discuss and debrief about client- and work-related stressors
- Variety in caseload and work tasks
- Mental health benefits

Adapted from Russo, 2007

What Helps? Professional Responses

- Understand your own work needs
- Take time off from work
- Find education/training for new skills
- Take advantage of supervision/consultation
- Identify strengths—clients' and your own
- Accept reality of stress and strain
- Nurture your sense of humor

Adapted from Russo, 2007

What Helps on a Daily Basis?

- Pace yourself; take breaks when possible
- Talk to someone else—someone helpful
- Develop your own list of self-soothing activities that "fit" at work—and use them
  - Breathing, relaxation, meditation
  - Self-talk that is reassuring
- Monitor your body's reactions to the day

Adapted from Russo, 2007

Helping Yourself/Helping Others

- Accept stress and related feelings as legitimate—for yourself and for coworkers
- Express support and find supportive others
- Promote solutions rather than complaints
- Contribute to cohesion of your workgroup
- Strive for open and direct communication
- Frame problems and solutions as group concerns rather than individual ones

Adapted from Russo, 2007

What Helps?
Personal Responses

- Be honest about your exposure to emotionally stressful material
- Attend to inner experience; therapy?
- Build in transition times between work and home
- Use coping skills common in trauma curricula
- Have fun, be spontaneous, laugh
- Personal life? Balanced life? Spiritual life?

Adapted from Russo, 2007

Conclusion

- Trauma-informed service approaches involve the entire culture and all constituencies of a program
- Staff support and care are therefore a key element in this model
- Organizational, professional, and personal resources can help staff deal more effectively with work-related stress

How We're Becoming Trauma Informed

Implementing Trauma Informed Care in Nova Scotia

First Steps

- External Review – Child and Adolescent Mental Health and Addictions Services in the Halifax Regional Municipality (DHW/IWK)
- Action plan developed regarding how to proceed with recommendations (IWK/DHW)

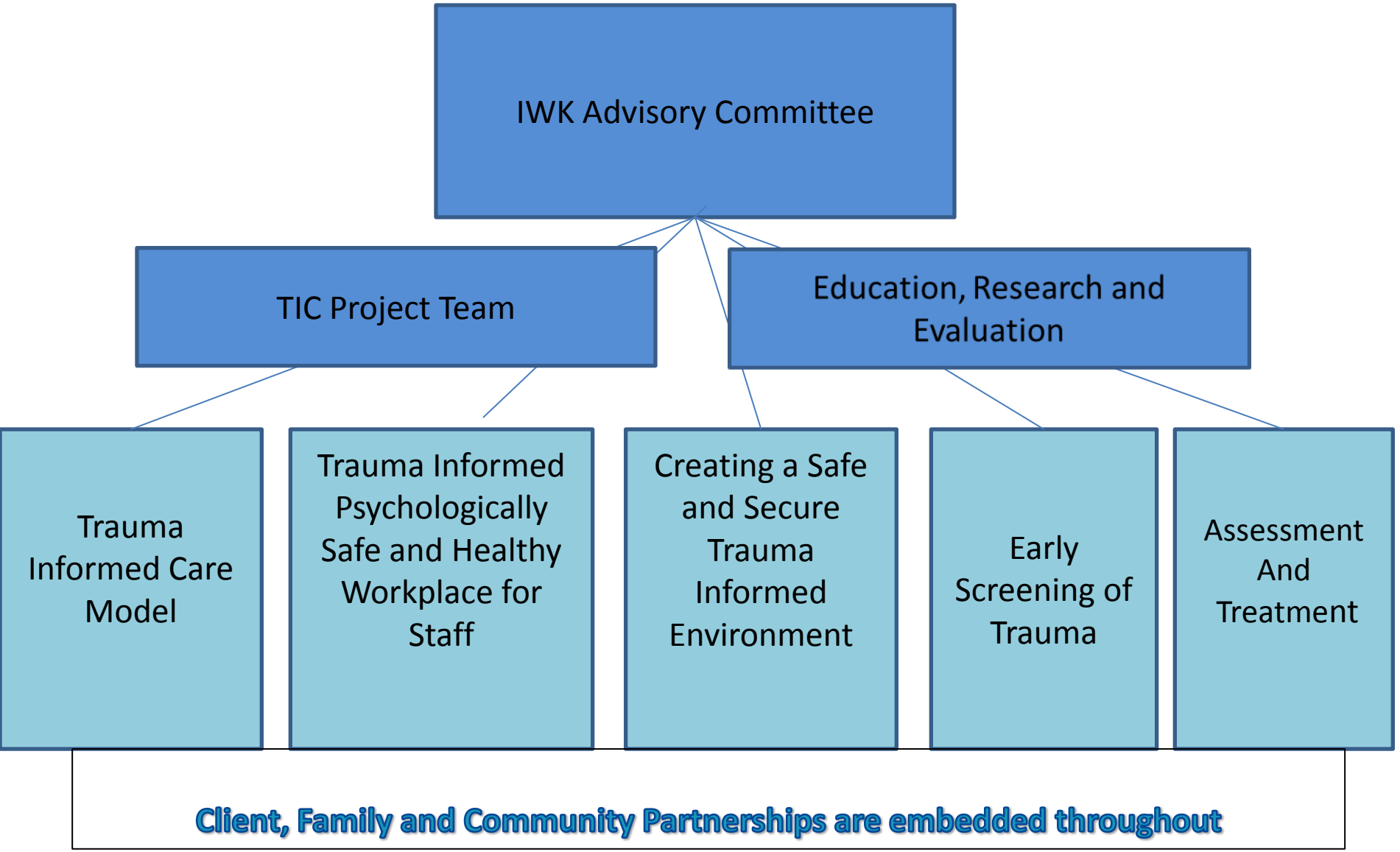
DHW /IWK Initiatives

- Formation of Provincial Project Advisory Team
- Provincial Consultations
- Webinars
- Framework ,Practice Briefs and Standards.

IWK Initiatives

- Formation of IWK CDHA Advisory Committee and Working Groups
- Work started on all working groups

Trauma Informed Care Team Structure



Some Examples of Working Group Initiatives

- Staff Mindfulness Training Pilot Study
- Debriefing Process and Resources
- Support for Staff - Resource List
- Website
- Trauma Informed Environmental Checklists

Look Around Your Physical Environment

- Examine your physical spaces to ensure they are comfortable, safe and calming
- Signage– Is the wording framed as what you can do vs. what you can't do?
- Are your waiting areas welcoming and friendly with comfortable furniture with maintenance up to date?
- Do you have information in client/patient areas that is intended to assist staff but may be triggering for clients/patients?
- Provide culturally appropriate symbols of safety in the physical environment (e.g. if you received Ali training -LGBTQI rainbow flag on an office door, culturally diverse posters, age appropriate)
- Artwork- Is the art work displayed calming to most people?

Be Mindful of the Emotional Environment

- Create interactions that are kind, calm, reassuring, safe, strengths-based and respectful
- Engaging around the client's/patient's goals
- Provide relationships which are honest and transparent and provide the client/patient with a developmentally appropriate degree of power and control. The child should understand what is about to happen, have a say and some control over pain management.
- Ask what helps when you or your child are upset/in pain? What was successful in the past? What are the triggers? What can we do?
- Continually seeking feedback regarding the client/patient's experience.
- Recognizing a coworker may be experiencing difficulty and offering support at the team level and also the organizational level.

OUR WORDS HAVE POWER

OLD WAY OF THINKING/DEFICIT BASED VS. TRAUMA INFORMED LANGUAGE/STRENGTHS BASED

What is wrong with you?	What happened to you? How did you cope?
This person is being manipulative	They are trying to get their needs met
They want attention	They are trying to connect the best they can
They have poor coping methods	They have survival skills and we can further support them by offering ideas for additional coping strategies
They'll never get over it, or they are permanently damaged	People can continue to learn effective coping strategies, and can recover from trauma
I shouldn't raise the issue of trauma or they will get upset	Talking about trauma (without forcing disclosure) gives opportunity to discuss, normalize & learn coping strategies. Failing to ask may reinforce society's denial of either prevalence or impact of trauma.

Introduction to Education Plan

Level 1: For EVERYONE

- **KICK OFF EVENT!!!!**
- General Awareness Campaign (e.g., Posters, 'Did You Know' emails)
- All IWK Staff Core Competencies (in development)
- Website (now available)
- TIC Education Sessions
  - Cultural Sensitivity/Competence/Relevance and TIC
  - Patient and Family Panel
  - Community Partners Panel
  - TIC Safe and Secure Environments

Sustainability Plan:

- Team-specific and Community-Based Organization consultations
- Train the Trainer Program/Trauma Informed Care Champions
- IWK TIC-Specific Staff Orientation/Onboarding Modules
- IWK Online/E-Source Education and 'Re-certification' Module
- TIC principles incorporated into Non-Violent Crisis Intervention

Level 2: For Designated Mental Health and Addictions Staff & Identified Individuals/Teams

- Attachment, Regulation and Competency (ARC) Training

- Clinician Core Competencies (in development)

Level 3: For Designated Clinicians who provide Trauma-Specific Services

- Evidence-Based Trauma-Specific Interventions Training for Mental Health and Addictions Clinicians

Sustainability Plan

Evaluation

- Community Connections Protocol for Certification (Harris and Fallot, 2009)
- Annual All Staff Survey (aka Readiness Survey)
- Annual Team TIC Evaluation Template
- Core Competencies
- Checklists

Potential Future Initiatives

- Online Education and Recertification Modules/Onboarding
- Performance Review Considerations
- Human Resources Considerations
- Student Training and Research Opportunities
- Curriculums for Health Professions

Examples of Research Opportunities

- Benchmarking Study
- TIC Pre-2016 at the IWK Study
- Patient/Family Driven Research Projects
- Client, family, staff, community partner satisfaction/feedback surveys/Focus groups
- Seclusion and restraint prevention research
- Screening
- Evidence-based trauma-specific intervention outcomes/Patient reported outcomes
- IT systems and trauma tracking
- IWK Resources/Services for Newcomers to Canada

Introducing our New Logo/Tagline

Website

www.yourexperiencesmatter.com

Acknowledgements

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- Lori Beyer, Community Connections Inc.
- Department of Health and Wellness
- IWK Health Centre
- Nova Scotia Health Authority
- Trauma Informed Care Advisory Committee
- Trauma Informed Care Project Team
- Trauma Informed Care Working Groups
- Trauma Informed Care Working Group Co-Leads
- Our system and community partners
- Revolve Branding
- All of you for taking the time out of your day to learn more about trauma informed care.

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- Charlene Martell, TIC Administrative Assistant
- Jennifer McCarron, TIC Policy and Communications Lead
- Joanne Zevenhuizen, MHA Advanced Practice Leader: Education

Questions

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Emergency Homeless Shelters in North America: An Inventory and Guide for Future Practice

John I. Gilderbloom, Gregory D. Squires & Margaret Wuerstle

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EMERGENCY HOMELESS SHELTERS IN NORTH AMERICA: AN INVENTORY AND GUIDE FOR FUTURE PRACTICE

John I. Gilderbloom, Gregory D. Squires, and Margaret Wuerstle

Abstract

One of the most contentious issues in many cities is the fierce debate over the location, management and quality of homeless shelters. While these debates rage in places around North America, little research has been done on housing policy concerning homeless shelters. The purpose of this research was to provide an inventory of a broad cross-section of cities in North America in order to develop recommendations for more effective policies, practices, regulations and standards of operation for emergency homeless shelters. This study documents trends and regulations for homeless shelters in Canada and the United States. We used two separate independent surveys to see how 98 cities managed the relatively recent emergence of homeless shelters. One national survey examined 51 of the 100 largest cities' homeless shelter policies and another survey reviewed 47 selective cities that are small, medium, and large. Emergency homeless shelters are often criticized for poor physical condition, overcrowding, lack of privacy, crime, health concerns, and negative impacts on neighborhood property values and businesses. Our research documents the wide range of practices that are being implemented in efforts to respond to these problems, some of the limitations of these practices, and broader structural forces that nurture homelessness and undercut efforts to respond.

Key words: emergency shelters, homeless, housing policy, poverty, urban planning

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Introduction

One of the most contentious issues in cities is the fierce debate over the location, management and quality of homeless shelters. While these debates rage in cities around North America, little research has been done on housing policy concerning homeless shelters. Emergency homeless shelters are often criticized for their poor physical condition, overcrowding, lack of privacy, crime, health concerns and negative impacts on neighborhood property values and businesses. The past one hundred years of housing reform movements have argued that health and sanitary regulations in housing are vital to the sustainability of the neighborhood and its residents.

Newspapers from Atlanta to Toronto, Vancouver to Los Angeles, and Kansas City to Winnipeg report intense debates faced by many cities with their homeless populations (e.g., Gilderbloom, 2009, 2010). For more than 100 years, city governments have embraced inspections to uncover code violations. However, in homeless shelters, regulations to prevent overcrowding, ensure compliance with standards for sanitation, fire safety, accessibility and proper construction techniques have been found to be ignored in some shelters (Gilderbloom, 2009, 2010; Gilderbloom & Burke, 2010). According to Gilderbloom and Burke (2010) who wrote about the lack of government action on emergency unregulated homeless shelters that were getting federal, state and local dollars:

> The homeless task force ignored the bigger issue of sanitation, overcrowding, safety, auditing, and accountability. More shocking is the abject failure of the Task Force to document the filthy and overcrowded conditions of shelters at night which are used by returning veterans, mothers with children, and unemployed. In fact, the task force recommends against any kind of government oversight and accountability. Nor does task force address the lack of professional staff to address the large number of broken and fragile homeless persons with health problems, drug addictions, alcoholism, and mental illness who need a hand up. (p. A±8)

Shelter providers are more concerned with life-safety issues for homeless clients and not necessarily with quality of life issues. Furthermore, regulations that ensure that shelters are sited in any place other than deteriorating

or industrial neighborhoods are practically non-existent. Most shelters are relegated to heavy industrial or commercial districts, thereby isolating homeless individuals even further. Yet, the regulation of homeless shelters is still relatively new to cities (Birch & Silver, 2009; Sawicki, 2009; VonHoffman, 2009). A systematic inventory of regulations and standards used by cities in North America does not exist in the currently available literature on homeless shelters. This study was an attempt to document trends and regulations for homeless shelters. The findings collected were from 98 cities and communities across Canada and the United States. The primary purpose of this paper is to contribute to a small but growing body of literature on regulations that have been implemented to protect homeless individuals that use shelter facilities. It is also intended to educate and inform governments, bureaucrats, citizens, and persons who are homeless about their rights and responsibilities.

Defining the Emergency Homeless Shelter

Emergency homeless shelters are facilities that provide short term stays for persons experiencing homelessness who need a place to stay for the night, whereas other variations of homeless shelters allow individuals to stay for longer periods of time with additional self-help programs (Hoch & Slayton, 1989). They generally are cost free and provide few if any services. The individuals using the shelters are expected to leave the facility in the morning and can only re-enter the facility when it reopens in the evening. Sometimes referred to as homeless shelters, special assistance shelters, or various other terms, emergency shelters are distinguished from other forms of housing for the homeless population such as supportive housing or transitional housing by providing mainly a place to sleep for the night or a short period of time.

Emergency shelters serve as the dominant form of assistance for those who are homeless. Some see this over-reliance on emergency shelters as a consequence of governments' inability to respond to the social and economic factors that cause homelessness, for example, soaring rents, deinstitutionalization of the mentally ill, and joblessness (Appelbaum, Dolny, Dreier, & Gilderbloom, 1991; Gilderbloom, 2008; Gilderbloom & Appelbaum, 1988; Gilderbloom, Appelbaum, Dolny & Dreier, 1992). Shelters provide basic help: offering a bed for a period of time, a degree of privacy, and basic provisions such as showers,

sinks and toilet facilities. However, many of these provisions, and the quality of them, are dependent upon funding provided through private donors, foundations, organizations, charities or public grants (Culhane & Metraux, 2008). With this said, there is still a heterogeneity of purpose or clientele; they are so variable it is difficult to classify them in a meaningful way other than by function. For example, there are women's shelters, men's shelters, runaway teenager's shelters, domestic violence shelters, pregnant woman's shelters, and half way houses. These shelters can be funded by non-government organizations (e.g., religious groups) or through grants from government entities or foundations. In most cities, the federal government provides money to local governments who distribute grants on a "competitive basis" to some local homeless shelters with most of them getting some support. Shelters occasionally will go beyond basic services and provide additional programs such as addiction, mental and health counselling, basic job and life skills training, and in some instances even basic employment (Gilderbloom, 2009, 2010; Gilderbloom & Burke, 2010).

Each facility has differing policies regarding length of stay for individuals. Many homeless shelters wind up relaxing their maximum occupancy limits depending upon the availability of affordable housing, sickness and weather conditions, as well as the overall number of those experiencing homelessness in the community. Consequently, many facilities today maintain a population of people who are homeless and who are there for an extended period of time (Hoch, 2000; Hopper, 2003; Hwang, 2000).

Literature Review: Quality of Homeless Life

Home Not Shelter

Cooper-Marcus (1997) argued that the home is a "symbol of self" representing a key component of a person's mental health. A person's home shapes her or his physical and mental health as well as economic opportunities and social relationships. Numerous theorists have pointed out that the need for a home does not stop with the need for shelter (Cox, 1981; Fried, 1963; Gilderbloom, 2008).

The emergency homeless shelter environment is usually unpleasant and a difficult place to call home, even for a short period. Many attributes

such as over-crowding, limitations on the length of stay, lack of a quality diet, unsanitary facilities and mandatory removal from the facility during the day make the transition from a shelter and into a home environment difficult (Culhane & Metraux, 2008; Duneier, 1999; Hopper, 2003; Lyon-Callo, 2004).

Hopper (2003) provided the following description of one such shelter in New York which led to an overhaul on laws regulating homeless shelters:

> . . . approximately 120 beds were crammed into a room perhaps eighty feet by forty feet; in four rows, each stretching the length of the room. Each bed was separated from its neighbor by a metal locker (that was broken)…A few of the beds had no mattresses, the bare metal springs covered instead with an old rug, a sheet of corrugated cardboard, or nothing at all. Without exception, the mattresses were blacken with dirt and grime, pockmarked with the burns of innumerable cigarettes. (p. 89)

Hopper (2003) also quoted a homeless man stating:

> You got maybe two hundred guys sleeping in the dormitory. They don't give you no clean sheets; they got all kinds of lice on them, crabs on them. They don't give you no type of stuff to take of your personal hygiene….Plus they have ex-mental patients down there. They babble and talk to themselves. They don't give them no type of assistance. (p. 99)

Similarly, Gilderbloom and Burke (2010) found in another city an emergency shelter with women and children forced to sleep on concrete floors, toilets covered with excrement, no toilet paper or soap in the bathrooms; no social work in-take procedures or background checks on the homeless. They summarized the situation as:

> Indeed it's safe to say, that some shelters given the high number of 911 calls are probably some of the most dangerous places to live in Louisville. How bad is it? Unregulated shelters where fifty or more are put in a room on mats; bathrooms with filthy toilets covered with excretion on the seats with no toilet paper or soap. There are no adequate background checks on shelter users including identification checks on criminal history or immediate medical examinations. The media spectacle of

> funerals for twenty recently deceased homeless persons shouts out that government needs to stop this fiasco. (p. A-8)

The dangerous, overcrowded and unsanitary conditions of the homeless shelters help explain why many who are experiencing homelessness choose to avoid shelters and sleep on the streets (Duneier, 1999).

Some emergency homeless shelters have been known to put 50 or more persons in a crowded room with just bunk beds or floor mats (Duneier, 1999; Gilderbloom, 2010; Gilderbloom & Burke, 2010; Hopper, 2003). Pynoos, Schafer, and Hartman (1973) reported that "overcrowding may lead to increased stress, poor development of sense of individuality, sexual conflict, lack of adequate sleep leading to poor work and school performance, and interfamilial tensions" (p. 4). Schorr (1963) argued that overcrowding was responsible for more health problems than the actual quality of the unit. A sound study on this issue was the work of sociologists Gove, Hughes, and Galle (1979). They found that overcrowding within a dwelling "[is] strongly related to poor mental health, poor social relationships in the residence, and poor child care; and [is] less strongly but significantly related to poor mental health, poor social relationships outside the residence" (Gove et al., 1979, p. 59). This comes as no surprise as the effects of homeless shelters on both the physical and emotional health of clients has been demonstrated through several studies (Bryant, 2004; Daly, 1996; Hwang, 2001; Plumb, 2000).

The fact that the homeless population is highly mobile contributes to the health problems at shelters (Daly, 1996; Khandor & Mason, 2007). Statistics bear out the reality that the homeless, while often less healthy than the general population, have higher rates of contracting diseases, such as scabies and body lice (Duneier, 1999; Hopper, 2003; Hwang, 2001). They are susceptible to a range of problems as a result of malnourishment, lack of appropriate clothing, and poor hygiene. Because they often spend a lot of time walking and standing, and usually have to wear shoes that don't fit, they are prone to foot problems (see also Khandor & Mason, 2007). According to Daly (1996), the rates of tuberculosis among those experiencing homelessness are as much as 100 times higher than in the general population. Furthermore, it is estimated that one-third to one-half of the this population suffers from some form of mental illness, and an estimated 25% to 35% of the those who use

shelters have been in a psychiatric hospital at least once (Culhane, Metreaux & Hadley, 2002; Gilderbloom, 1988, 2008, 2009, 2010; Hoch, 2000; Khandor & Mason, 2007; Walsh, 1985). The five most common reasons why people avoided shelters in Toronto were: bed bugs, crowded conditions, fear of getting sick, fear of violence and fear of theft (Khandor & Mason, 2007). Some shelter clients rated prisons superior to shelters in terms of safety, cleanliness and food quality (Rossi, 1989). Shelters only fared better because residents were able to leave at their own will.

Depending on the type of mission, the quality of shelters vary in terms of how well they address the needs of those whom they are servicing. This has been attributed to restrictions shelters can impose on clients such as barring or excluding people who are intoxicated or acting aggressively (Rossi, 1989). The "shelters of last resort" are seen as the most problematic, causing cities to begin the task of addressing the needs of their homeless population by drafting new policies and regulations. However, as more recent literature indicates, there is still a need for further analysis and documentation of the policies and regulations cities have in place to combat homelessness.

The Emergency Homeless Shelter "System"

Since the early 1980s, there has been an ongoing debate in the social sciences over whether emergency homeless shelters contribute at all to a reduction or elimination of homelessness (e.g., Culhane, 1992; Culhane & Metraux, 2008). Desjarlais (1997) stated, "shelters now do what mental institutions did but with far fewer resources and ability to care for clients with mental health needs" (p. 27).

For two decades, the "Continuum of Care" approach to homelessness has been embraced as the U.S. Department of Housing and Urban Development (HUD) policy to help those experiencing homelessness. HUD developed the Continuum of Care approach in 1994 as a holistic way to synchronize services to help those who are homeless (Gilderbloom, 2009, 2010). To prepare individuals for self-sufficient life outside of a shelter, the Continuum of Care model urged shelters to help individuals address their mental health issues and addictions. This model outlines a detailed progression from absolute homelessness to independent living, and includes support services to help

such individuals become more self-sufficient. The Continuum of Care model to transition the homeless out of shelters has never been evaluated. On any given night, more than half of the single adult homeless in the United States sleep on the streets (U.S. Department of Housing and Urban Development, 2012; Wuerstle, 2010). The gap in the Continuum of Care is so large it is difficult to say there is a continuum at all and the numbers have overwhelmed the system (Barber, 2008). Research has shown that this model, while widely adopted, has done little to alleviate homelessness (Culhane, 1992; Culhane & Metraux, 2008; Hoch, 2000; Leo & August, 2005; Lyon-Callo, 2004). This could be due to the fact that Continuum of Care was originally a funding reform, meant to change the ways HUD funded programs. The programs formed a planning body that did make some recommendations and created projects to attempt to cover the gaps, which was a rather lofty goal due to the size and number of gaps. Furthermore, the experience of living in these facilities can create long-lasting and devastating repercussions in a person's health and sense of self (Leo & August, 2005). At a minimum, some shelters function to provide protection from the elements while people sleep; these shelters do not support people's transition out of homelessness (Gilderbloom, 2008; Hopper 2003).

Emergency Homeless Shelter Location

Homeless shelter location is a major issue that some cities have tried to address. Most shelters are situated in facilities that were designed for other purposes, such as old armories, schools, and vacant facilities in declining neighborhoods (Desjarlais, 1997). This is likely attributed to the ease with which shelter providers are able to locate in struggling neighborhoods where there is the added benefit of low-cost rents and/or properties (Gilderbloom, 2009).

Although there is little research on the connections between emergency homeless shelters and crime, some data exist demonstrating that shelters have a negative impact on property values and, consequently, are located where there is least likelihood of opposition by voters, political campaign contributors, and other influential citizens. A case in point is the City of Cincinnati, where public officials determined that property devaluation was occurring around homeless shelters (Cincinnati, 2004, 2006, 2008a, 2008b, 2008c; Wuerstle,

2010). They found that public nuisance complaints such as public intoxication, panhandling, loitering, drug usage, and public urination were likely to happen around shelters (Cincinnati, 2008a, 2008b, 2008c; Wuerstle, 2010). According to Cincinnati Police Department statistics, calls for emergency services were substantially higher in the neighborhood containing the city's largest shelter. Further exacerbating the situation was the continuous police presence required to address the nuisance complaints. Over time, these complaints and the police presence led businesses and homeowners to flee these neighborhoods, thereby acting as a deterrent to investment. In an effort to understand the depth of the impact that homeless shelters were having on neighborhood investment, the City of Cincinnati (2009) conducted a number of surveys and focus groups. One survey of property appraisers suggested that most were certain that business and housing property values would be lower in such areas (Wuerstle, 2010). A survey of shelter providers stated concerns that they felt 'locked' into current neighborhoods because new zoning regulations and community opposition would make it more difficult to de-concentrate by relocating to other neighborhoods.

While providing facilities throughout neighborhoods seems to be preferred by neighborhood groups, de-concentration of shelter facilities is a double-edged sword because the more remote and isolated a homeless facility is, the less effective it is at getting people off the streets (Hoch, 2000; Hopper, 2003). However, concentrating large numbers of homeless facilities and services in one location also isolates individuals by not integrating the individuals into a stable neighborhood environment. Therefore, it is vital that shelters for those experiencing homelessness are located throughout a city. To get the individuals transitioned to independent living, they must have shelter located near public transportation, jobs, social services, and schools (Davis, 2004). This is best accomplished by locating shelters in residential and commercial areas and not solely in industrial or deteriorating neighborhoods.

Regulation

The roots of regulation stem from the notion that many social ills could be alleviated through the regulation of shelter. This began in 1901 when the leading housing reformers, architects, town planners, and elected

officials put together a conference which would later become known as the American Planning Association. Birch and Silver (2009) add that a primary focus of planners was how to "deal with crowding, poor sanitation, and poorly ventilated and shoddy housing" (p. 119) (see also Talen, 2012; von Hoffman, 2009). For nearly 100 years, a major task of government has been to combat poor sanitation and overcrowding, which was believed to be aggravated or caused by a host of social and physical evils (Birch & Silver, 2009; Talen, 2012; U.S. Senate Committee on the District of Columbia, 1910). Birch and Silver (2009) suggest that life expectancy for United States citizens increased from 50 years of age in 1909 to 78 years of age in 2009 in part due to "minimum housing standards."

Today's standards have emerged partly as a result of a number of technological and scientific advancements, as well as from social movements such as rational planning, utilitarian ethics and social reform (Talen, 2012). By the 1980s the Reagan administration announced that housing regulations had caused the quality of housing to be the highest ever in North America and Western Europe (Appelbaum et al, 1991; Gilderbloom & Appelbaum, 1986; Gilderbloom et al., 1992). This also marked the sudden emergence of homelessness as conservative governments cut back on social welfare programs, de-institutionalization was taking place, and there was a breakdown in families. It appears that the conservative argument renouncing "government regulation of housing" in favor of self-regulation has won out in many cities when it comes to emergency homeless shelters (Gilderbloom, 2008). Our aim in this research was to do an inventory of planning actions for emergency shelters' location, management, sanitation, regulation, and inspection.

Method

This study of emergency homeless shelter policies employed document analysis and data from interviews with informants. To fill in the gaps of knowledge regarding the regulation of emergency homeless shelter facilities in North America, we compiled a summary of the types of laws that have been enacted to address issues surrounding the development of these facilities. The research constitutes the largest independent collection of regulations related to homeless facilities. We surveyed a broad cross-section of cities in North

America in order to provide a qualitative examination of emerging policies, practices, regulations, standards of operation, and trends in the regulation of emergency homeless shelters. We used two separate independent surveys to study how cities manage the relatively recent emergence of homeless shelters. The surveys were done independently of each other at different universities and cities and were made at the request of their respective city governments, homeless activists, and inner-city neighborhood organizations. When the two research teams learned of each other's respective research, they decided to collaborate and write this article together instead of separately, providing a richer and more nuanced study as a result. Together they provide a wealth of information on policies that cities are debating issues that have largely been absent from the urban policy scholarly literature.

In Survey Number 1, we rank ordered the 100 largest cities in the United States and approached each of them; 51 responded for just over a 50% response rate. It is generally accepted that a sample that yields at least a 50% response rate is an appropriately representative sample (Babbie, 2009; Gilderbloom, Ambrosius, Squires, Hanka & Kenitzer, 2012; Gilderbloom & Markham, 1995; Schutt, 2012). The questionnaire for Survey Number 1 specifically focused on the extent and type of regulations by asking: a) if homeless shelters were zoned in certain parts of the city; b) whether there were limitations on the size of shelters through regulating the maximum number of beds; c) if there were mandates for a certain ratio of social workers to residents; d) what security issues were faced by residents; and, e) what evaluation and screening practices had been conducted. The first points of contact were with the planning departments or other departments specializing in homelessness followed by the mayors' offices and the government legal department. When city officials were not able to respond, they suggested following up with other stakeholders; the interviews were extended to local homeless coalitions and emergency homeless shelter operators.

The data collection was done through telephone interview, email or fax. It was cost prohibitive to research every city's vast municipal code to locate all of the regulations that pertain to those experiencing homelessness. We found that the best way to conduct the research was to use the "knowledgeable informants approach"; this method was used in both surveys and allowed us to contact

informed government officials who could give us the information we sought (Babbie, 2009). Due to the complexity of the study, it was challenging to obtain the needed information and it was unclear why some cities did not respond to our requests, though there could have been a number of issues such as a lack of resources, a lack of municipal codes, or a lack of a knowledgeable informant.

Survey Number 2 was a non-random survey of 47 selected cities that ranged from small to large in the United States and Canada. The survey could also be considered a snowball sample that was defined as looking at cities with a "reputation" for introducing and passing emergency housing shelter regulations. To find out what kinds of regulations and policies cities enacted, interviews were conducted with city officials, homeless advocates, shelter operators and recipients of homeless services. After creating a list of regulations found in cities through online searches, Survey Number 2 called selected municipalities to determine if a study documenting the impact of these uses on neighborhoods had been prepared. A total of 47 cities shared information with us. We were interested in the following: a) Why had the municipality adopted regulations for these particular uses?; b) What impacts did these uses have on neighborhoods that justified regulations?; c) How did the municipalities document the impacts of these uses?; d) Was a report prepared?; e) Was a survey conducted?; and, f) Were site assessments conducted? The data were collected via telephone interviews, emails, and faxes to cities identified with regulations concerning homeless shelters.

We combined the two different surveys to assemble information from a large number of U.S. cities (as well as counties and townships) and Toronto, Canada. Figure 1 identifies the cities that participated. It shows that our studies represented a range of cities in North America. The fact that the surveys were conducted independently of each other but found similar results in overlapping areas increases the validity and reliability of this study (Babbie, 2009; Schutt, 2012).

Findings

The findings from the surveys are summarized regarding the impact on residents and the impact on neighborhoods. Current practices and trends are then presented.

Map Created by John Gilderbloom, Andrew Condie and Zach Kenitzer

Figure 1. Locations of Sites Where Homeless Shelter Surveys Were Conducted

Impact on Residents

Table 1 shows that many cities had enacted some form of government regulation concerning homeless shelters. Nearly two-thirds of the cities limited the number of occupants in a homeless shelter. Similarly, two-thirds of the cities had zoning standards on the location of homeless shelters. Roughly one-third of the cities had also adopted regulations regarding squatting and tent cities. Almost one-half of the cities required homeless shelters to be certified and have regular inspections. Nearly one-third mandated evaluations of homeless shelters, but of those requiring evaluations, only half used an outside evaluator. Only a small number of cities mandated a certain ratio of social workers to homeless persons in the shelters. Roughly, one out of six shelters had mandates for security; no cities required shelters to cooperate with police investigations. With the exception of one city, no shelters allowed alcohol or drug use on the premises although it was noted that several cities "looked the other way" concerning substance abuse. It should be noted that the response rate also declined significantly for the questions about substance abuse.

Table 1. Responses of Regarding Regulations—Survey Number 1

	Yes		No		No Response	
Questions	Number	Percent[a]	Number	Percent[a]	Number	Percent
Limit the size and/or the capacity of homeless shelters?	30	58.8% 62.5%	18	35.3% 37.5%	3	5.9%
Locations of emergency homeless shelters?	31	60.8% 75.6%	10	19.6% 24.4%	10	19.6%
Establishment or certification of emergency homeless shelters?	24	47.1% 54.5%	20	39.2% 45.5%	7	13.7%
Inspections of emergency homeless shelters?	27	52.9% 61.4%	17	33.3% 38.6%	7	13.7%
Evaluations of emergency homeless shelters?	15	29.4% 40.5%	22	43.1% 59.5%	14	27.5%
Outside evaluations or inspections of emergency homeless shelters?	7	13.7% 18.9%	30	58.8% 81.1%	14	27.5%
Ratio of social workers to clients at emergency homeless shelters?	7	13.7% 17.5%	33	64.7% 82.5%	11	21.6%
Screening processes at emergency homeless shelters?	3	5.9% 8.1%	34	66.7% 91.9%	14	27.5%
Data collection of homeless individuals?	19	37.3% 46.3%	22	43.1% 53.7%	10	19.6%
Security at emergency homeless shelters?	7	13.7% 18.9%	30	58.8% 81.1%	14	27.5%
Cooperation with police in pending investigations?	0	0.0% 0.0%	38	74.5% 100.0%	13	25.5%
Do your city's shelters allow alcohol or drug usage in shelter?	1	2.0% 2.8%	35	68.6% 97.2%	15	29.4%
Are you aware of any shelters in your city that "turn the other way?"	5	9.8% 16.7%	25	49.0% 83.3%	21	41.2%
Does your city have any regulations regarding "tent cities?"	13	25.5% 40.6%	19	37.3% 59.4%	19	37.3%
Does your city have any regulations regarding "squatting?"	17	33.3% 54.8%	14	27.5% 45.2%	20	39.2%

Source: University of Louisville, Center for Sustainable Urban Neighborhoods
[a] Lower percentage is with "No Response" taken out

Another debate on homeless shelters was whether restrictions should be placed on the number of beds in a facility. Several cities had passed laws restricting the size of shelters from 40 to 100 beds. Table 2 examines this question concerning the ideal size of a shelter. A majority of the respondents indicated that the ideal size of a shelter should be 25 or fewer beds; many said that "smaller was better." The least popular shelter size was shelters with 250 beds or more.

Table 2. Responses Regarding the Ideal Size for an Emergency Homeless Shelter—Survey Number 1

	Most ideal		Least ideal	
Number of beds	Number	Percent[a]	Number	Percent[a]
25 and less	20	39.2% 60.6%	9	17.6% 29.0%
26 ± 100	7	13.7% 21.2%	3	5.9% 9.7%
101 ± 250	4	7.8% 12.1%	0	0.0% 0.0%
More than 250	2	3.9% 6.1%	19	37.3% 61.3%
No Response	18	35.3%	20	39.2%

Source: University of Louisville, Center for Sustainable Urban Neighborhoods
[a] Lower percentage is with "No Response" taken out

The majority of cities sampled had some form of regulation regarding homeless shelters. For example, we learned from our interviews that when inspections occurred at shelters the majority of inspections were either for fire or building codes. Many cities also collected information on persons who were homeless and that passed through their shelters. However, they reported that they were doing so not because the city mandated it, but because their grants did. Most shelters that collected information used a system standard required by HUD.

Impact on Neighborhoods

The findings suggest that many cities were struggling with the impact of shelters on neighborhoods and how to regulate shelters so that the needs of this at-risk population were addressed humanely while mitigating any adverse impacts on the neighborhoods. Yet, due to a lack of information, many were

unaware of what other cities had accomplished. Many cities tried to regulate through existing legislation because passing new regulations would be difficult from an administrative and political standpoint.

Survey Number 2 revealed that jurisdictions were concerned with the potential negative impacts of certain social service uses within cities. Table 3 illustrates that many cities regulated the distance separating shelters from each other. Most of the cities contacted that had developed distance separation regulations had also adopted regulations concerning the size of the shelter and number of beds allowed in a shelter (see also Tables 4 and 5). Of these, most limited the size from 40 to fewer than 100 beds (Table 6). However, fewer cities had implemented population ratio requirements that limit the number of shelters based on the population of a neighborhood or municipal jurisdiction. For instance, a municipality may limit the number of shelters to one per 25,000 people based on the census count of the jurisdiction. Only a minority of cities had licensing requirements or a "Good Neighbor Plan" which attempted to mitigate any negative impacts of a shelter in the surrounding neighborhood. A number of cities had additional regulations such as mandatory fencing for adjoining properties (Cleveland, Ohio), lighting requirements for the perimeter of the property (Red Bluff, California), or required individuals entering shelters to sign a contract that specified rights and duties (New York City).

Table 3. Types of Regulations for Homeless Shelters—Survey Number 2

	City	Distance separation	Population ratios	Size limitations	Licensing	Good neighbor plans	Additional regulations
1	Anchorage, Alaska	X		X			
2	Atlanta, Georgia	X					
3	Boston, Massachusetts	X					
4	Broward County, Florida	X					
5	Cleveland, Ohio	X	X	X			X
6	Columbus, Ohio	X		X			
7	Covington, Kentucky	X	X		X	X	
8	Dallas, Texas	X		X			
9	Denver, Colorado			X			
10	Des Moines, Iowa			X		X	X
11	Detroit, Michigan	X			X		

Table 3 (continued). Types of Regulations for Homeless Shelters—Survey Number 2

	City	Distance separation	Population ratios	Size limitations	Licensing	Good neighbor plans	Additional regulations
12	Elko, Nevada	X					
13	Fairfield, California						X
14	Gainesville, Florida	X		X			
15	Green Bay, Wisconsin	X	X				
16	Hamilton, Canada	X					
17	Henderson, Nevada	X					
18	Knoxville, Tennessee	X		X			
19	Lacey, Washington	X		X			X
20	Lawrence, Kansas			X			
21	Little Rock, Arkansas	X					
22	Los Angeles, California			X			
23	Marshall Township, Pennsylvania	X			X		
24	Mesa, Arizona			X		X	
25	Miami, Florida	X	X				
26	Minneapolis, Minnesota					X	
27	Miramar, Florida	X					
28	New York City, New York			X	X		X
29	Oklahoma City, Oklahoma						
30	Ottawa, Canada	X		X	X	X	X
31	Palmdale, California	X					
32	Pasadena, California			X			
33	Phillipsburg, New Jersey			X	X		
34	Portland, Oregon						
35	Prescott, Arizona	X			X		
36	Raleigh, North Carolina			X	X		X
37	Red Bluff, California			X		X	X
38	Rochester, Minnesota	X	X				
39	Rochester, New York	X				X	
40	Roseville, California	X		X		X	X
41	Sacramento, California	X		X			
42	San Diego, California	X				X	X
43	Shelby, North Carolina	X		X			
44	Spokane County, Washington	X		X	X	X	
45	Toronto, Canada	X					
46	Wichita, Kansas			X			
47	Wilmington, Delaware						X

Source: City of Cincinnati / University of Cincinnati Survey

Table 4. Regulations Regarding Distance Separation Requirements Between Shelters—Survey Number 2

City	Separation	Facility type	Comments
Anchorage, Alaska	1,000 Ft.	Residential Care Facility from existing facility.	
Atlanta, Georgia	2000 Ft.	Human Services, Personal Care Homes, Child Caring Institution, Assisted Living Facility and Group Home Facility.	Also requires Special Use permit, the use must be within 1500 ft. of public transportation, provide 80 s.f./person and the use cannot expand or increase the number of persons once Special Permit is approved.
Boston, Massachusetts	600 Ft.	Group Living Facility from another Group Living Facility.	
Broward County, Florida	500 Ft.	Homeless Shelter from any residentially zoned district.	
Cleveland, Ohio	500 Ft.	Shelter from any residential zone.	
	500 Ft.	Halfway House from lots occupied by a playground, public park, public recreation center, church, public library, pre-school, daycare, primary or secondary school.	
	2,000 Ft.	Halfway House from another correctional halfway house.	No more than two correctional halfway houses shall be located in any police district.
Columbus, Ohio	1,000 Ft.	Halfway House be located no closer to another halfway house or community residential treatment center; to any institution similar in nature but occupied by more than thirty residents; or to a school, nursing home, rest home or home for the aging.	The halfway house should be located in an eligible census tract. A census tract shall be eligible for such location if it contains no halfway house or community residential treatment center.
Covington, Kentucky	One mile.	Homeless Shelter from another shelter.	
	500 Ft.	Homeless Shelter from a school.	
Dallas, Texas	One mile.	Homeless Shelter from another shelter.	
Detroit, Michigan	3,000 Ft.	Homeless Shelter from other homeless shelter.	
	500 Ft.	Homeless Shelter from an Adult Foster Care Facility.	
Elko, Nevada	1,320 Ft.	Halfway House and another such facility.	
Gainesville, Florida	1,320 Ft.	Halfway House between one halfway house and another facility.	
	2,000 Ft.	Halfway House away from food distribution for the needy.	
	2,000 Ft.	Food Distribution Center from the University of Florida Campus.	
	2 mile radius	Food Distribution Center for destitute people cannot be located within a 2 mile radius of one another.	

Table 4 (continued). Regulations Regarding Distance Separation Requirements Between Shelters—Survey Number 2

City	Separation	Facility type	Comments
Green Bay, Wisconsin	2,500 Ft.	Community Living between any such facility.	
Hamilton, Ontario, Canada	Minimum radial distance of 300 meters	Homeless Shelter from any other residential care facility, emergency shelter, or corrections residence.	
Henderson, Nevada	1,500 Ft.	Halfway House from multifamily developments, these establishments are only allowed in individually owned units.	
Knoxville, Tennessee	300 Ft.	Halfway House from a park, school, or day care center.	
Lacey, Washington	300 Ft.	Halfway House from licensed daycare center, public or private school.	The requirement can be waived by daycare operator if the property is adjacent to the host agency.
Little Rock, Arkansas	1,500 Ft.	Separation, spacing and procedural requirements for homeless shelters will be determined by the planning commission so as not to adversely impact the surrounding properties and neighborhood. Unless the commission determines that a different area is more appropriate, a neighborhood shall be defined as an area incorporating all properties lying within one thousand five hundred (1,500) feet of the site for which the permit is requested.	
Marshall Township, Pennsylvania	1,000 Ft. 1,000 Ft.	Halfway House from another Halfway House. Halfway House from Amusement park; Camp (for minors' activity); Child care facility; Churches and similar places of worship; Community center; Library; Museum; Park; Playground; School; Other lands where minors congregate.	
Miami, Florida	2500 Ft	Community based residential facility from like facility.	Also has population ratios.
Miramar, Florida	1,000 Ft. 1,200 Ft.	Homeless Shelter from an Adult Foster Care Facility. Homeless Shelter from lots occupied by a playground, public park, public recreation center, church, public library, pre-school, daycare, primary or secondary school.	
Ottawa, Canada	1,640 Ft. 3,281 Ft.	Group Living Facility between urban areas. Group Living Facility between facility and other residents in rural setting.	

Table 4 (continued). Regulations Regarding Distance Separation Requirements Between Shelters—Survey Number 2

City	Separation	Facility type	Comments
Palmdale, California	1,320 Ft.	Shelter from another shelter.	
	500 Ft.	Shelter from a school.	
	150 Ft.	Shelter from any single-family residential zone.	
Portland, Oregon	150 Ft.	Provisions for shelters include density limitations, max. occupancy regulations and hours of operation. Where two or more residential zones are within 150 feet of a Group Living development, the controlling regulations are those of the lower density zone.	Group Living facilities must be included in the mission statement of the campus's impact mitigation plan; The impact mitigation plan's implemented mitigation measures must accommodate the impacts the Group Living facility will create.
Prescott, Arizona	1,320 Ft.	Transitional Housing between such uses, as measured in a straight line from the nearest property line of an approved facility to the nearest property line of another Transitional Housing facility.	
Rochester, Minnesota	500-1000 Ft.	Offender Transitional Housing from like facility	Also population ratios.
Rochester, New York	1/4 mile	Homeless Shelter from other homeless shelters and similar uses.	
Roseville, California	500 Ft.	Temporary Resident Shelter from any preschool, elementary school, high school, or any zone where temporary resident shelters are not permitted.	
Sacramento, California	1000 Ft	Sm. and Lg. Shelters for adults from any other temporary residential shelter.	Small (24 beds) shelter for adults and large (over 24 beds) shelters for adults.
	500 Ft.	Sm. and Lg. Shelters for adults from public park, schools K-12, churches and residential zones.	Small (24 bed) shelter for adults and large (over 24 beds) shelters for adults.
	1000 Ft.	Sm. Shelter from other temporary residential shelters	Other Small Shelters and Large Shelters.
San Diego, California	1/4 Mile	Homeless Day Center from an emergency shelter.	Measured from property line to property line.
Shelby, North Carolina	2,000 Ft.	Halfway House from another Halfway House.	
Spokane County, Washington	1/4 of a mile	Halfway House from Public library, Public playground or park, Public or private school and its grounds of kindergarten to 12th grade, Child day-care center, Place of worship such as a church, mosque, synagogue or temple, Another halfway house.	
Toronto, Canada	820 Ft.	Homeless Shelter from another shelter.	

Source: City of Cincinnati / University of Cincinnati Survey

Table 5. Regulations Regarding the Ratio of Shelters to Population—Survey Number 2

City	Facility type	Regulations	Comments
Covington, Kentucky	Youth Shelter	One shelter per 25,000 persons in the city.	
	Addiction Treatment	No more than one addiction treatment facility per 25,000 persons residing in the city.	Addiction treatment facilities are appropriate if they meet the criteria listed above, unless clear convincing evidence is presented that deleterious impacts involving noise, traffic, safety, or property values will result from the establishment of a shelter at a particular location.
Green Bay, Wisconsin	Community Living	Community living arrangement shall be permitted under this standard as long as their total capacity within any district that does not exceed 25 or 1% of the population of the district, whichever is greater.	When that capacity is reached, no additional community living arrangement shall be permitted within the district until their capacity is reduced or the district's population increases, thus changing the ratio.
Cleveland, Ohio	Halfway Houses	Limits halfway houses to 2 per police district.	
Rochester, Minnesota	Offender Transitional Housing (OTH)	The number of OTH uses within a radius of 1.5 times the distance separation may not exceed 0.5% of the total number of dwelling units for developed neighborhoods within that radius.	
Miami, Florida	Community Based Residential Facilities	Community based residential facilities are not permitted in any census tract where residents of existing community residential homes or community based residential facilities comprise two (2) percent or more of that census tract's current total population as estimated by the City of Miami Planning and Zoning Department.	

Source: City of Cincinnati / University of Cincinnati Survey

Table 6. Regulations Regarding Size Limitations of Shelters—Survey Number 2

City	Facility type	Regulations	Comments
Anchorage, Alaska	Homeless Shelter	150 square feet per resident.	
Cleveland, Ohio	Halfway House	A maximum of 100 residents subject to correctional oversight shall be accommodated.	Limited by the size of the existing or proposed building and all its allocation of space for sleeping quarters, except that the board of zoning adjustment may approve a larger number solely for the reason that the proposal's economical feasibility is tied to such larger number of residents.
Columbus, Ohio	Halfway House	Occupied by no more than 30 residents.	No resident limit on denser areas zoned R6 or higher.
Dallas, Texas	Halfway House	No more than 50 residents permitted.	
Denver, Colorado	Homeless Shelter	No more than 200 beds.	There shall be no more than nine hundred and fifty (950) beds in permanent homeless shelters in any council district.
Des Moines, Iowa	Homeless Shelter	300 square feet of lot size for each resident. A minimum of 80 square feet of usable floor space per bed, and usable floor space of no less than eight feet in any major dimension.	Each such facility shall contain at least one lavatory and one toilet per ten residents or fraction thereof and one tub or shower per 15 residents or fraction thereof. There shall be a minimum of one bathroom with tub or shower, toilet and lavatory on each floor which has resident bedrooms.
Gainesville, Florida	Halfway House	No more than 30 persons can be housed in a 24-hour period.	Residences for destitute people as accessory uses to places of religious assembly can have no more than 15 persons housed in a 24-hour period.
Knoxville, Tennessee	Halfway House	Maximum capacity of five (5) persons.	
Lacey, Washington	Homeless Shelter	No more than 40 residents shall be allowed.	(1) The City may further limit the number of residents as site conditions dictate. (2) The use of a building as a homeless shelter shall not exceed ninety (90) days.
Lawrence, Kansas	Homeless Shelter	Not exceeds 15 persons maximum.	
Mesa, Arizona	Shelter	Limited to 50 beds	
New York City, New York	Homeless shelter	New shelters can't be any larger than 100 beds.	

Table 6 (continued). Regulations Regarding Size Limitations of Shelters—Survey Number 2

City	Facility type	Regulations	Comments
Los Angeles, California	Community Care Facility	Residential facility which serves six or fewer persons.	Shall be considered a family for the purpose. Residential care facilities, family care home, alcoholism or drug abuse recovery facility.
Pasadena, California	Temporary Housing	No more than 10 residents at a time.	Should have at least 1 fully equipped kitchen.
Phillipsburg, New Jersey	Homeless Shelter	Maximum occupancy shall be no greater than 15 persons per site.	
Raleigh, North Carolina	Homeless shelter	40 beds per shelter.	
Red Bluff, California	Homeless Shelter	Maximum of 4 Families, or a maximum of 4 unrelated persons. The maximum number of beds or clients permitted to be served (eating, showering, and or spending the night) nightly shall not exceed 1 per 125 sq. ft. of floor area.	Also require Good Neighbor Plan elements.
Roseville, California	Temporary Shelter	Shall not exceed 12 residents, excluding staff in occupancy.	
Sacramento, California	Shelter	The size of the temporary resident shelter shall be in character with the surrounding neighborhood.	
Shelby, North Carolina	Halfway House	No more than 30 residents.	Maximum of 60 days.
Spokane County, Washington	Halfway House	There shall be no more than 20 residents.	
Wichita, Kansas	Group Homes & Halfway House	Housing no more than 16 persons.	

Source: City of Cincinnati / University of Cincinnati Survey

Of the cities contacted, many reported that they had not completed needs assessments and/or impact studies on homeless shelters prior to implementing regulations. The rationale for creating licensing was because of complaints regarding panhandling, loitering, cleanliness outside of shelters, and public urination (Table 7). The concentration of facilities such as homeless shelters, halfway houses, and soup kitchens was also a concern to

several jurisdictions. Many acknowledged that these uses have a clear social usefulness and value but that they also have undeniable adverse effects on residential environments. In general, based on telephone conversations with representatives from the various municipalities, communities regulating such facilities felt that only a limited number of facilities could be absorbed before neighborhoods would experience significant deterioration in the quality of life (see also Tables 8 and 9).

Table 7. Regulations Regarding Licensing of Shelters—Survey Number 2

City	Facility Type	Regulations
Covington, Kentucky	Addiction Treatment Facility	Licensure for the program operated at the facility must be obtained in accordance with Non-medical alcohol treatment and education center regulations.
Detroit, Michigan	Emergency Homeless Shelter	In 1997 Detroit Michigan adopted The Homeless Shelter Licensing ordinance to ensure that whenever children, women, and men become homeless, they will have decent safe and healthy refuge. The ordinance provides the city with tools to regulate and monitor conditions of emergency homeless shelters.
Marshall Township, Pennsylvania	Halfway House	Halfway house must be licensed where required by an appropriate government agency(ies), and shall be in compliance with all applicable rules and regulations of the licensing body(ies). A copy of any required license must be delivered to the Township prior to beginning the use.
New York City, New York	Homeless Shelter	All shelters must apply for operating license.
Phillipsburg, New Jersey	Homeless Shelter	It shall be unlawful for any person, firm or corporation to operate a Homeless Shelter within the Town of Phillipsburg, without first obtaining a license therefore from the Town of Phillipsburg as hereinafter provided. Licensees can be revoked.
Prescott, Arizona	Halfway House	Whether allowed by right or by Conditional Use Permit, the request shall be evaluated based on occupancy load and parking adequacy. All such transitional housing providers shall register with the Community Development Department to assess whether the use is allowed at a location, or by right or by Conditional Use Permit.
Raleigh, North Carolina	Homeless Shelter	License is approved if it meets building codes and is less than 40 beds.
Spokane County, Washington	Assisted Living Facilities	Licensing is available to eligible sites include emergency shelters, domestic violence shelters, and some transitional housing providers.
	Halfway House	The halfway house shall meet any applicable local licensing for a facility housing inmates in transition from a correctional facility to the community.

Source: City of Cincinnati / University of Cincinnati Survey

Table 8. Regulations Regarding Good Neighbor Plans—Survey Number 2

City	Facility Type	Regulations	Comments
Covington, Kentucky	Youth Shelter	Are appropriate if they meet the criteria listed and unless clear evidence is presented the deleterious impacts involving noise, traffic, safety, or property values will result from the establishment of a shelter at a particular location.	
Des Moines, Iowa	Homeless Shelter & Group Care Facilities	If after issuance of the required permit evidence comes to the attention of the zoning enforcement officer that operation of such facility may be causing unreasonable and chronic traffic congestion in the streets, unreasonable and chronic noise in the neighborhood, or danger to the health, safety and general welfare of its occupants or of occupants of other property in the neighborhood, the zoning enforcement officer shall refer the matter to the board of adjustment. Each such facility shall provide supervision 24 hours a day by persons responsible for the care of the residents.	
Mesa, Arizona	Social Service Facility	Should be located in a manner consistent with existing zoning and land use. Over time a facility location plan should be designed by and approved by, social service providers and the City Council. Proposed new services should be supportive of existing services and should avoid being duplicative of similar programs already in operation. In general services should not be located along main street. [See the discussion section under "Additional Regulations".]	
Minneapolis, Minnesota	Homeless Shelter	Requires a Management Plan to mitigate impacts.	
Red Bluff, California	Homeless Shelter	Requires exterior & interior intake and waiting areas, fencing, max. length of stay, distance separations, lighting along periphery of building and facility, visual barrier that separate activities and operations from public view at all times, 24 hour supervision., capacity limitations.	
Rochester, New York	Homeless Shelter	A litter control program must include at least 2 trash receptacles on site for customer use, located next to walkways. At a minimum, the program must also address daily on site litter pick-up, customer awareness activities, and off site litter pick-up. A loitering control program is required, and must, as a minimum address such things locating telephone booths, benches, tables, and other activity areas that can be viewed and controlled by employees. The person on duty must be able to monitor grounds, facility and resident activities to help prevent theft and physical harm.	Passed in response to State law requiring that homeless shelters be permitted by-right in certain zoning districts. State law allowed standards to be adopted for shelters for operation and capacity.
Roseville, California	Temporary Shelter	The size of the temporary resident shelter shall be in character with the surrounding neighborhood.	

Table 8 (continued). Regulations Regarding Good Neighbor Plans—Survey Number 2

City	Facility Type	Regulations	Comments
San Diego, California	Emergency Center	Requires a number of impact mitigation plans including a loitering control plan to minimize the congregation of overnight residents during daylight hours in the vicinity of the shelter and litter control to provide for the removal of litter in the vicinity of the shelter on a regular basis.	
Spokane County, Washington	Halfway House	Shall demonstrate that the halfway house does not constitute a significant adverse impact to the health, safety and welfare.	
	Homeless Day Center	A communication plan that describes how the provider will communicate with the local community, neighborhood, and business organizations, and with adjacent neighbors on a regular basis, and how community issues concerns will be addressed; plan to minimize loitering in the vicinity of the facility and a litter control plan on the facility on a regular basis.	
	Addiction Treatment Facility	Are appropriate if they meet the criteria listed and unless clear evidence is presented the deleterious impacts involving noise, traffic, safety, or property values will result from the establishment of a shelter at a particular location.	

Source: City of Cincinnati / University of Cincinnati Survey

Table 9. Additional Regulations—Survey Number 2

City	Regulations	Facility Type
Cleveland, Ohio	The rear lot line of the property will have a buffer with adequate fencing and barriers in place to screen and separate adjoining properties, and to prevent access between the properties.	Homeless Shelter
Des Moines, Iowa	If after issuance of the required permit evidence comes to the attention of the zoning enforcement officer that operation of such facility may be causing unreasonable and chronic traffic congestion in the streets, unreasonable and chronic noise in the neighborhood, or danger to the health, safety and general welfare of its occupants or of occupants of other property in the neighborhood, the zoning enforcement officer shall refer the matter to the board of adjustment. Each such facility shall provide supervision 24 hours a day by persons responsible for the care of the residents.	Homeless Shelter & Group Care Facilities
	Separation, spacing and procedural requirements for homeless shelters will be determined by the planning commission so as not to adversely impact the surrounding properties and neighborhood. Unless the commission determines that a different area is more appropriate, a neighborhood shall be defined as an area incorporating all properties lying within one thousand five hundred (1,500) feet of the site for which the permit is requested.	Homeless Shelter

Table 9 (continued). Additional Regulations—Survey Number 2

City	Regulations	Facility Type
Fairfield, California	Shelters must be located in proximity to public transportation and social service facilities.	Homeless Shelter
Lacey, Washington	Because a shelter is a non-traditional living arrangement and therefore provides less privacy and more complex living arrangements that traditional homes, a distance requirement that provides visual separation and buffering from other sensitive land use activities is considered appropriate.	Homeless Shelter
New York City, New York	Homeless and operators must sign a contract that specifies 29 rights and duties of each party including limitation of staying 30 days, seek government housing and welfare assistance, seek employment or medical attention for unhealthy addictions. Operators must be up to housing and health codes, everyone must have a bed and cannot sleep on the floor.	Homeless shelter
Raleigh, North Carolina	Homeless operators must follow zoning and health ordinances of the city.	Homeless shelter
Red Bluff, California	Lighting shall be provided in all parking, exterior (outside) intake and/or waiting areas, outside common areas and along the periphery of the building and facility.	Emergency Homeless Shelter
Roseville, California	The size of the temporary resident shelter shall be in character with the surrounding neighborhood.	Temporary Shelter
San Diego, California	A loitering control plan to minimize the congregation of overnight residents during daylight hours in the vicinity of the shelter and litter control to provide for the removal of litter in the vicinity of the shelter on a regular basis.	Emergency Center
Wilmington, Delaware	Provides standards for shelters and includes spacing requirements.	Emergency Homeless Shelter

Source: City of Cincinnati / University of Cincinnati Survey

Current Practices and Trends

In summarizing how shelters were being regulated, licensed, sited, designed and operated, some "best practices" were identified that grew from the substantial problems of unregulated shelters in cities that had caused harm to the residents, neighborhoods, and the reputation of the city. Findings on homeless shelter practices are grouped into the sections described below.

Rights and responsibilities contracts. Cities that were in the Northeast U.S. had more thorough regulations and standards that were used to address emergency homelessness shelters than other regions. Cities in what is traditionally known as the "rust-belt" region had more clearly defined standards for dealing with this population. In some cases, such as the state of New York, the state constitution mandates that these individuals and families be taken care of and its cities have taken this mandate further. For example, New York City's

extensive network of shelters had drafted contracts that are signed by residents upon entering a public shelter. These contracts inform individuals entering the shelter of their rights and responsibilities as well as repercussions for not following shelter rules. They are guaranteed a host of social services that ends in 30 days. Southern states appear to have far fewer regulatory interventions.

Data collection. Cities are now required to collect more detailed and precise data on the homeless population covering drug and alcohol use, and their medical needs including mental health and disabilities. Many persons experiencing homelessness should have a social worker or health professional to deal with mental/physical health issues, jobs and educational training (Gilderbloom & Appelbaum, 1988; Hopper, 2003). The Homeless Information Management System (HIMS) mandated by HUD requires a minimal amount of information on homeless clients.

Good Neighbor Plans. Good Neighbor Plans were a tool used to ease neighborhood transition (see Table 8). Many cities and jurisdictions felt that a good way to mitigate shelter presence and the "NIMBY" (not in my backyard) effects on housing values of homeless shelters were through Good Neighbor Plans. These plans addressed a variety of issues stemming from the presence of a homeless shelter, including, but not limited to: cleanliness of exterior of shelter, hours of operation, upkeep of shelter facilities and outward appearance, use of drugs/alcohol near premises, the number of homeless permitted outside the shelter, the number of homeless allowed in a shelter and the number of shelters located in a certain locale, and security and safety measures. As part of a Good Neighbor Plan, cities were adopting density regulations that worked to prohibit the concentration of shelters.

Licensing. Licensing and inspection of shelters were implemented is some cities (see Table 7). The licensing requirements varied among the cities.

Zoning regulations. The regulations that cities had adopted regarding homeless shelters had overwhelmingly been promulgated since 2000. Most of the cities specified the distance separating shelters (see Table 4) and the size of the shelter (see Table 6). While early leaders such as New York City and Chicago have had regulations regarding shelters for longer periods of time that other cities, we hypothesized that this is partially because of the larger populations these cities have, as well as their more progressive political tendencies.

Future Research Directions

Perhaps the most striking finding was the wide range of issues addressed by various regulatory regimes. There was clear agreement on some issues, for example, smaller shelters were widely viewed as preferable to larger ones (see Table 2). Another pattern that emerged was that more jurisdictions have developed regulations addressing geographic and spatial characteristics of shelters than the quality of services provided. For example, 59% of the jurisdictions limited the size and capacity of shelters and 61% regulated their location. But just 29% required evaluations of shelters and 37% called for data collection of homeless individuals (see Table 1). Regulations tended to fall into discrete categories, but the range of issues addressed within these categories was as striking, if not more so, than the commonalities. For example, while several communities had Good Neighbor Plans, specific rules varied. Roseville, California, required the size of temporary shelters to be in character with the surrounding community. San Diego had a litter control program. And, Red Bluff required exterior and interior intake and waiting areas (see Table 8).

We plan to expand the data collection and conduct more systematic quantitative analysis to identify what might account for these patterns. Potential predictor variables include the size and region of cities, the racial composition and other socio-economic characteristics of the local population, the political affiliation (e.g. Republican, Democratic, Independent) of local leadership, and the state of local economies. Despite the many unanswered questions, it is clear that homelessness is on the radar screen of virtually all municipalities and at least part of their response is the creation of emergency shelters and promulgation of rules to govern their operations. But, the limitations of many of these efforts is belied by the recent "occupy" protests in which many homeless chose parks with tents instead of shelters.

Conclusions and Policy Considerations

There is a gap in the existing literature on how cities in North America regulate emergency homeless shelters limiting the ability of policy makers to make informed decisions on regulating emergency housing shelters and effectively delivering the services that the client population needs. This paper showed policies and standards of operation for homeless shelters from a broad

cross section of cities in the United States and Canada. This study illustrated what is currently being done to protect residents of homeless shelters from possible health and physical abuse. The study also showed how emergency housing regulations are designed with "good neighbor" policies to protect neighborhoods against a decline in property values and business.

A number of laws and policies have been implemented in North American cities with the goal of protecting the homeless from poor and unsanitary housing conditions. But eliminating homelessness will not be accomplished solely through the regulation of shelters. Consequently, many of these cities are working with shelters to ensure they are able to provide the necessary support to the individuals to find housing, address mental health and addiction issues, as well as training and employment opportunities.

Progressive leaders are recognizing these problems and are calling for regulations to protect individuals experiencing spells of homelessness. Recently there have even been calls across North America to adopt model homeless legislation for cities. Local government has a unique role to play in this work. Sawicki (2009) called for government to be "user oriented" (p. 270). Similarly, Herbert Gans (1993) argued that planners must be "attentive to the goals, preferences and values of the people for and with whom they are making plans and policies" (p. 13). Davidoff (1965) goes further by arguing that planners no longer be neutral and instead advocate for the poor.

This research provides a basis for understanding the current status of the emergency homeless shelter systems in cities in Canada and the United States and the necessity for well-designed policies to improve them. This study did not allow us to measure the effectiveness of these regulations but it provides a good account of what cities are doing to help the homeless and protect neighbors and businesses. The research highlights several key findings. Our first conclusion is that there is a range of policies and regulations that have been adopted to address emergency homeless shelter policies and our second conclusion is that few shelters provided the range of services needed by clients and residents. Following from these conclusions, it is clear that the addition of an emergency homeless shelter to a community requires: that careful consideration be given to providing effective and appropriate health and social service support; the demographics of the homeless population be understood and the type of facilities needed for the

different populations; well thought-out and suitable physical design and location; and, anticipation of the impact on host communities. Homeless shelters cannot be excluded from neighborhoods nor can they be concentrated in a handful of neighborhoods. They must fit within the fabric of a community in order to help transition individuals to healthy self-sufficient lifestyles. Government will find this research helpful in addressing the needs and concerns of the shelter residents. Having a better understanding of regulatory environments can help facilitate a discussion around how shelters can be designed and operated differently. Designing emergency housing requires innovative and flexible thinking to ensure that accommodations are safe, healthy, comfortable, respectful, and that they support independence. This would contribute to the quality of life for residents and surrounding communities. Although government regulation will not ensure that best practices are implemented, it can promote discussion of participatory models to utilize when working with marginalized individuals. With the support of housing advocates and the homeless themselves, several cities have passed a variety of laws and/or implemented a number of policies that protect this population from poor and unsanitary housing conditions. Although it is noted that eliminating homelessness could not be accomplished solely through the regulation of shelters, many of these cities have also worked with shelters to ensure they are able to provide the necessary support to find housing, address mental health and addictions issues, and have access to training and employment opportunities.

Individuals and families experiencing homelessness need a safe and sanitary environment that allows them to rebuild and renew their broken lives. To ensure these rights, government can no longer afford to be neutral. Due to the lack of regulations, this population is at greater risk of contracting airborne diseases, having conflicts with strangers who might have a criminal past, overcrowding, and unsanitary conditions. Obviously children are extremely vulnerable in these shelters. For these reasons, the unregulated emergency homeless shelter might be the most dangerous place in a city. Our research calls for greater action in the management of emergency shelters with mandated operating requirements.

Homelessness, of course, is a multilayered phenomenon caused by various forces ranging from the dynamics of globalization to local political power

struggles. Responding to the many problems associated with homelessness involves far more than the maintenance of emergency shelters that meet local codes. While the stereotypical image of those experiencing homelessness may be a physically or mentally challenged individual and one who often lacks the appropriate values to compete in a modern, competitive society, the causes are in fact more structural than individual. As the National Coalition for the Homeless (2009a) has argued, among the primary causes of homelessness and particularly the rise of homelessness in recent decades are increasing poverty, the erosion of work opportunities, declining public assistance, the foreclosure epidemic, and the increasing lack of affordability of housing. It is the case that those experiencing homelessness are disproportionately likely to require a range of social services, but approximately 40% of this population consists of children under the age of 18 and one out of five adults are employed, though generally in jobs that pay very low wages that are not sufficient to rent even a small apartment (National Coalition for the Homeless, 2009b). Structure, not culture, frames the predominant explanation for homelessness.

Financial stressors raise several questions for local efforts to maintain homeless shelters that comply with local ordinances and provide the services and security that the residents and neighboring communities need. Should local officials maintain and expand the shelters even if they have to compromise the quality of care they provide? Should they vigorously enforce regulations even if the costs of doing so include the closing of some facilities whose operators cannot afford to comply? Operating unsanitary and unsafe shelters does not seem to be a reasonable option. And to what extent does the fact that shelters tend to be in the least desirable neighborhoods, housing a population that is disproportionately non-white, affect commitments to these services and their clients? Would a more aggressive fair housing movement or regional development agenda that breaks down further city/suburban walls make any difference? In some respects these challenges reinforce the wisdom that all politics are local. But in this case, the local problems are rooted in forces above and beyond local resources and decision making. Today, they also reflect a long history of efforts to deal with a range of housing questions.

While this paper has explored current regulations for emergency homeless shelters in North America, it has not explored the impact of these

policies and practices. HUD programs, such as HOPE VI, Housing First, and Choice Neighborhoods, demand that we study the impact of programs on the people in public housing as well as the larger economic impacts on the surrounding areas. All levels of government have a crucial stake in emergency homeless shelters. Due to the fact that this high level of interest exists, we need to evaluate the policies and regulations that are in place for the residents of the emergency homeless shelters as well as the surrounding neighborhoods in order to develop more effective practices. Our research documents the wide range of initiatives that have been passed into law for emergency housing shelters; these policies and practices are part of the lively debate of what the homeless need to protect and renew their lives. Future evaluation research should measure the outcomes of a wide range of heterogeneous emergency shelters to determine what works best as effective housing policy. Funding from all levels of government should mandate that these best practices be followed to ensure that people in these neighborhoods are helped and not hurt.

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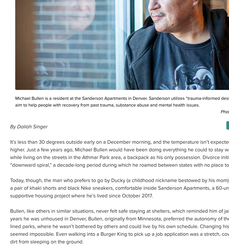
Using Trauma-Informed Design, Buildings Become Tools for Recovery

Back to Newsroom

STORY January 30th, 2020



Michael Bullen is a resident at the Sanderson Apartments in Denver. Sanderson utilizes "trauma-informed design"—elements that aim to help people with recovery from past trauma, substance abuse and mental health issues.

Photos by James Chance

By Dalah Singer

It's less than 30 degrees outside early on a December morning, and the temperature isn't expected to rise much higher. Just a few years ago, Michael Bullen would have been doing everything he could to stay warm and survive while living on the streets in the Athmar Park area, a backpack as his only possession. Divorce initiated what he calls a "downward spiral," a decade-long period during which he moved between states with no place to call home.

Today, though, the man who prefers to go by Ducky (a childhood nickname bestowed by his mom) is swigging coffee in a pair of khaki shorts and black Nike sneakers, comfortable inside Sanderson Apartments, a 60-unit permanent supportive housing project where he's lived since October 2017.

Bullen, like others in similar situations, never felt safe staying at shelters, which reminded him of jail. During the six years he was unhoused in Denver, Bullen, originally from Minnesota, preferred the autonomy of the streets and tree-lined parks, where he wasn't bothered by others and could live by his own schedule. Changing his circumstances seemed impossible. Even walking into a Burger King to pick up a job application was a stretch, covered as he was in dirt from sleeping on the ground.

"It's hard to stay physically clean when you're living on the street," Bullen said, adding, "I couldn't [see] myself getting a job because I was either sick or drunk all the time."

When Mental Health Center of Denver (MHCD) staff approached Bullen in a park a few years ago about an apartment at Sanderson, he was dumbfounded. As part of an initiative financed by the city's social impact bond for supportive housing, people experiencing homelessness for more than a year, and who were frequent utilizers of services like police, jail and emergency rooms, were added to a list and then assigned to various contracted providers, including MHCD, who then went into the streets to find them.

"I wasn't looking for housing—it seemed so out of reach," Bullen said. "I haven't had my own place for over 10 years."

Sanderson, though, is different. Designed by Davis Partnership Architects of Denver, it was built specifically to house people like Bullen—people experiencing chronic homelessness who regularly interact with both the criminal justice system and emergency medical services and are dealing with substance use and/or mental health issues. The architects and MHCD considered the traumas associated with people's past experiences and responded to them with a layout, colors, furniture and building materials intended to make them feel safe, dignified and supported.

Experts say Sanderson is one of the first buildings in the nation to employ an innovative approach called trauma-informed design: transforming the built environment from a place where people are housed into a tool that can help with the recovery process.

"We know there's a strong link between people's physiological states and their emotional states and their physical environments," said Jill Pable, PhD, project lead at the Florida-based nonprofit Design Resources for Homelessness and one of a small number of people around the country researching this topic. "Trauma-informed design involves creating environments that reflect people's sense of identity and dignity, their dignity and their empowerment."

Bullen has certainly experienced those impacts, even if he can't point out specific design details. Since moving into Sanderson, Bullen said he's been drinking less, and cooking and socializing more. While his disability case is pending, Bullen is involved in vocational rehabilitation and building an art portfolio to show potential employers.

"I feel secure and relaxed," he said. "I have a little bit more confidence. It feels good paying a little rent, putting a key in the keyhole. You feel like a person."

More than half a million people are considered homeless in the United States. On any given night, around 200,000 of them are unsheltered, sleeping in parks and cars and on sidewalks in cities and towns across the country. The numbers are smaller—but no less stark—when narrowed down to just metro Denver, where nearly 5,800 people experience homelessness on a single evening.

For years, service providers have been shifting toward a trauma-informed approach when working with unhoused people and others with violent, unstable or otherwise troubling backgrounds. That is, recognizing the signs and symptoms of trauma and responding with policies and practices that avoid retraumatization. According to the Substance Abuse and Mental Health Services Administration, 61% of men and 51% of women in this country have been exposed to at least one traumatic event in their lifetimes (such as suffering physical abuse as a child, or having a family member incarcerated), while 90% of people interacting with public behavioral health care settings have experienced trauma.

Trauma-informed design is an extension of that practice, rooted in the belief that an unfriendly built environment—dark stairwells, clinical-looking spaces, black metal bed frames—can be triggering for people with a history of trauma.

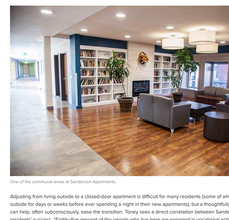
"Housing is not as simple as it sounds," says Jennifer Wilson, a social worker and research associate with the Center for Housing and Homelessness Research at the University of Denver. "You don't just take someone from the experience of homelessness and give them an apartment and a key, and that's the end of it and stability has arrived. The trauma of homelessness and whatever the lived experience might have been for that person is so significant that that apartment, that key, that front door, those noises, the lights—they pose their own set of challenges."

Trauma-informed dwellings don't solve all of those concerns, but they can help soften the impact. "We mitigate triggers for past traumas with well-lit, wide hallways and open staircases. We mitigate anxiety by using good wayfinding," said JoAnn Toney, MHCD's director of housing and residential services. "It's all about mitigating [adverse] life experiences any way we can by providing a secure environment that's open, safe and inviting."

These venues are deliberately designed to be deinstitutionalized and appear barrier-free (though plenty of protective features are in place) and to instill a sense of control and self-worth in residents. They are also intended to provide privacy while simultaneously fostering a sense of community. That means addressing everything from designing flexible, easy-to-navigate spaces to the selection of colors and lighting to the use of natural materials.

"Well-designed built places can help people's perceptions of themselves, perceptions of other people, and certainly their perceptions of their situations," Pable said. "When you have a space that looks better, it sends a very understandable message of, 'People care.' If people care, that's sending a message of, 'People really do want me to get better.'"

At Sanderson Apartments, that message is imparted in countless ways. Wider-than-usual corridors, lined with windows, create open sight lines, so residents and staff can quickly get a sense of who's around. The 440-square-foot units don't have doors to the bedrooms, and there's a cutout in the wall between the bedrooms and living spaces so residents can immediately see if the space is secure upon entering. Community dining and exercise rooms offer places to congregate and are all located near the front desk, where staff sit.



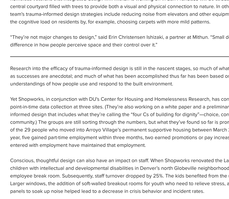
One of the communal areas at Sanderson Apartments.

Adjusting from living outside to a closed-door apartment is difficult for many residents (some of whose choose to sleep outside for days or weeks before ever spending a night in their new apartments), but a thoughtfully designed building can help, often subconsciously, ease the transition. Toney sees a direct correlation between Sanderson's design and residents' success. "Eighty-five percent of the people who live here are engaged in vocational activities or are employed," she said. "That's not typical in all of our apartment buildings."

Four miles north, Arroyo Village offers another example of trauma-informed design. Run by The Delores Project and Rocky Mountain Communities, the development, which encompasses a shelter (exclusively for women and transgender people), low-income permanent supportive housing and affordable workforce housing for individuals and families, opened in March 2019.

Couches in its permanent supportive-housing units are extra wide so that those who aren't yet ready to sleep in a bed have another option. Among other amenities, the shelter offers lockers for storing personal belongings, privacy walls between the bunks, outlets and reading lamps at every bed, and a bathroom with vanity mirrors where the women like to congregate. Soothing paint colors were chosen, in hues of sage and lavender.

"We really wanted to deinstitutionalize a shelter and make it more of a home-like environment," said The Delores Project CEO Stephanie Miller. "When our guests… come through the doors, it really does look like a living room. There's no intake desk or check-in desk. You come in and there are big sofas and lounge chairs. A flat-screen TV. Rocking chairs for self-soothing. Lots of windows."



The paint and furniture colors in the rooms at Arroyo Village in Denver purposefully include hues like sage and lavender.

Sandy Barrows moved from Arroyo Village's shelter into a supportive housing apartment in July.

"I'm reconnecting with who I was—now that I came home," the 59-year-old said, snug on her couch, a side table to her right barely visible under dozens of stuffed animals (her "babies"). "I feel safe. I know when coming in [my apartment] that no one's going to be in here."

It took a while for Barrows to stop carrying her backpack everywhere and checking that all of her belongings were precisely where she left them. Barrows experienced homelessness for five years after suffering a mental breakdown; she slept mostly in her 1992 Chevy truck, learning over time where to park to avoid being woken by police flashlights in the middle of the night. Now, she's on disability and taking her medications and seeing a therapist regularly; she finds joy in paying her rent every month. Her packed apartment is on the fourth floor, a quarter she likes to refer to as the "penthouse area."

The community was designed by Denver-based Shopworks Architecture, a leader in this area that has worked on more than a dozen trauma-informed projects. Arroyo Village was the group's first intentional, versus intuitive, effort in this space.

"Some of the process of designing around trauma really involves a phase before there's even the idea of a building, saying, 'What are we trying to accomplish here? Who's it for? What does success look and feel like?'" said Chad Holtzinger, president and architect at Shopworks, adding that those questions need to be asked both of the residents or future clients and the providers. "They may make informed decisions, not just lucky ones."

These projects aren't just happening in Colorado, though. More planners, architects, developers and interior designers across the country are considering trauma-informed design in their work. An affordable housing project for formerly homeless veterans that integrated design firm Mithun is working on in San Francisco will be structured around a central courtyard filled with trees to provide both a visual and physical connection to nature. In other projects, the team's trauma-informed design strategies include reducing noise from elevators and other equipment, and lessening the cognitive load on residents by, for example, choosing carpets with more mild patterns.

"They're not major changes to design," said Erin Christensen Ishizaki, a partner at Mithun. "Small details can make a big difference in how people perceive space and their control over it."

Research into the efficacy of trauma-informed design is still in the nascent stages, so much of what proponents point to as successes are anecdotal; and much of what has been accomplished thus far has been based on instinctual understandings of how people use and respond to the built environment.

Yet Shopworks, in conjunction with DU's Center for Housing and Homelessness Research, has conducted some initial point-in-time data collection at three sites. (They're also working on a white paper and a preliminary model for trauma-informed design that includes what they're calling the "four Cs of building for dignity"—choice, control, comfort and community.) The groups are still sorting through the numbers, but what they've found so far is promising. For example, of the 29 people who moved into Arroyo Village's permanent supportive housing between March 20 and April 24 last year, five gained part-time employment within three months, two earned promotions or pay increases, and four who entered with employment have maintained that employment.

Conscious, thoughtful design can also have an impact on staff. When Shopworks renovated the Lerados School for children with intellectual and developmental disabilities in Denver's north Globeville neighborhood, the firm added an employee break room. Subsequently, staff turnover dropped by 25%. The kids benefited from the updated design, too. Larger windows, the addition of soft-walled breakout rooms for youth who need to relieve stress, and new acoustic panels to soak up noise helped lead to a decrease in crisis behavior and incident rates.

Still, "we need more research," admitted Shopworks's COO (and former Delores Project deputy director) Laura Rossbert. "I think those numbers are impressive, but it's not something I can claim is solely because it was a trauma-informed design building." Rossbert did point out, however, that the Lerados' behavior improvements occurred only after a new building came online, with the same program, children and staff involved.

Elsewhere, after renovations at Craig Hospital in Englewood, which specializes in spinal cord injury and brain injury rehabilitation, were completed, there was a 10% average overall reduction in length of stay among patients. Among the changes were the addition of a sensory-healing garden; updated hallway lighting that uses warm, indirect light so patients in wheelchairs aren't looking up into glaring ceiling lights; and widened hallways to create more sitting and interaction areas for patients and their families.

"In a few different areas across the country, we've heard reports saying patients have been less agitated, more willing to participate in their therapy sessions, and they've needed less pain medication," says Brenna Costello, principal and health care studio leader for SmithGroup, a national design firm that worked on the Craig project, and board member for the Academy of Architecture for Health.

In Vermont, the Daystation serves up to 75 people lunch each day in the winter. Jonathan Farrell, facilities director for the Committee on Temporary Shelter, which operates the daytime drop-in shelter, said socialization is much more common in the trauma-informed, recently renovated space. People tended to sit quietly and keep to themselves in the previous venue—a crowded, lower-level room. The updated Daystation has taller ceilings, contains round tables and is flooded with natural light. It's much livelier, Farrell said, with clients chatting, playing games and building relationships, an important part of trauma recovery.

There is, however, a price to generating those results. While The Delores Project's Miller said the organization didn't bear any additional financial burdens when building Arroyo Village, MHCD's Toney noted that Sanderson Apartments was costlier because details like enlarged hallways and a glassed-in stairwell are more expensive. In addition, about 40% of the building is devoted to engagement or community space—space that could have been used to add rentable units.

But there are long-term returns to consider, too. According to the Urban Institute, a Washington, D.C.-based think tank, there is a high price tag associated with people experiencing homelessness who access "safety-net services": about $29,000 per person per year. That's much more than the $18,000 it costs on average to provide that same person with supportive housing.

Trauma-informed design is not yet an officially recognized building certification, like LEED or WELL, but Enterprises Community Partners, a nonprofit focused on affordable housing, just added credits for "healing-centered design" to its updated 2020 Enterprise Green Communities Criteria. As homelessness and concerns over affordable housing grow in Colorado and beyond, proponents of trauma-informed design see this as positive momentum and say service providers and planners should push forward even as research continues.

"I'm not willing to wait for empirical science to absolutely validate these things," Pable said. "We have too much need out there."

The first night that Arroyo Village opened, Rossbert gave guests a tour of the shelter. Months of investment—work, money, time—had gone into learning about and implementing this newfangled idea of trauma-informed design. She wasn't sure how the new residents would respond.

When they sat down to dinner, Rossbert got her answer. One of the women turned to her and said, "I don't feel like I'm in a shelter. I feel like I'm home."

Dalah Singer
Writer and Editor
Denver, Colorado

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Addendum to earlier email re: TIC and shelter design

Sally Bowden-Schaible
Aug 21, 2021, 4:00:33 PM (yesterday)
to planni...@portlandmaine.gov

To the Planning Board:

I wanted to add a couple of points to my earlier email to you. *Before any approval is given*, it is important to *thoroughly review* the research related to Trauma-Informed Care and recommended TIC shelter design, and it is important to mandate that the shelter design incorporate TIC design, as well as TIC staffing approaches, in the ***required Management and Staffing plans***. (See attachments below for reference)

And actually, rather taking a pause in the approval process , I urge you to ***deny the permit*** for the proposed location on Riverside Street because the site/location is *not conducive* to the use proposed. As I noted in my earlier email, one of the reasons (not the only) is that it abuts the trailhead of the Portland Trail system. This presents great safety concerns for shelter guests as well as for others using the trails. However, if the Planning Board does approve DC and the City's plan, *mitigation measures need to be required,* such as off-site monitoring, etc, to ensure the safety of shelter guests and the public along the trails.

Thank you.

Sally Bowden-Schaible, MS, LCPC, CCMHC
1sallybs@gmail.com
207.939.3254

27 Birchvale Dr
Portland, ME 04102

	2020			2021		
	Intakes	% Prtland Residents	Ag OSS night	Total OSS	% Portland Residents	Avg OSS night
Jan	108	34%		83	34%	182
Feb	79	29%	175	8	63%	113
March	95	18%	169	53	43%	104
Apr	0	--	113+35*	119	24%	103
May	0	--	92+46*	75	31%	167
June	1	0%	75+44*	95	17%	169
July	18	50%	73+15*	--		
Aug	75	39%	84	--		
Sept	32	38%	100	--		
Oct	56	55%	104	--		
Nov	52	37%		--		
Dec	84	35%		--		

Beds by

-

-

William Higgins
8:47 AM (1 hour ago)

To those, it may concern. I have made some reviews of the submittal and make the following comments by message. I will undoubtedly have others prior to public comment.

I was homeless here at Oxford Street Shelter four times between 2002 and 2009, with one of those periods nearly three years in length. I make the comments as one with those personal experiences.

(A) In the Homeless Services Center Management Plan Exhibit 4 (Resident Contract), 5 (Reasonable Rules), and 6 (Neighborhood Engagement Strategy) are what exists for the current Oxford Street Shelter. What changes will take place on these documents? Should that not be part of another workshop?

(B) What is the storage capacity of each of the 220 Individual Storage Lockers (in cubic feet)? It is very difficult to see on the drawing, but it could be a 1-foot by 1-foot space with either two or three lockers vertically.

(C) In the dorms, will beds be assigned? Is there some planned secure storage for individuals to leave their property? Under-bed storage is used extensively in the military for personal belongings (clothing, footwear, outerwear, etc.) With assigned beds, individuals need not strip beds every day.

(D) Note was made at the Emergency Shelter Assessment Committee meeting on August 19th that a shelter operations plan had been submitted to Maine Housing for review. It is not available for review as part of the documentation presented. This is a different location than Oxford Street Shelter, wherein there are additional potential hazards to residents that staff has not considered. As one with Lived Experience of Homelessness, I would want that plan a subject of another workshop.

(E) I have a concern relevant to disruption along the open areas causing a greater effect on others surrounding that individual. While Oxford Street held approximately 150 beds, they were segmented into seven areas. The plan shows some dividers to set up four-bed pods, but what is the height of those dividers?

Sincerely,

William E Higgins Jr.
Executive Director
Homeless Advocacy for All
68 High Street
Portland, ME 04101
(207) 272-0199

Facebook Group - For all interested in global homelessness (not just those with prior personal experience of homelessness)
https://www.facebook.com/groups/158304874893138/

Facebook Page - https://www.facebook.com/Homeless-Advocacy-for-All-1906793862752116/

LinkedIn Page - https://www.linkedin.com/company/27162111/

Ha4aLL Missions - A) Grow advocacy, understanding, and improve general public perceptions regarding individuals that experience homelessness; (B) Provide current and accurate information to these individuals; (C) Encourage service providers to work together removing barriers between them; (D) Improve service provision through process improvement.

Ha4aLL Visions - Embolden a Revolution in homeless services where homelessness becomes situational, of short duration, and not recur. For that to be accomplished we will focus efforts as described below.
(A) Have those with personal experience of all types of homelessness (Individuals, Families, Veteran, Domestic Violence, Adolescent, and LGBTQ+) share valued input, through Continua of Care (CoC's) in the USA, or in similar regulatory bodies for other nations. This must not be as tokens but as valued and compensated resources. (B) Recruit professionals with diverse Leadership and process improvement experience to CoC's, CoC's Committees, and CoC's Board of Directors. Consultants can provide similar services to the Department of Housing and Urban Development (HUD), as they do for corporations. For service providers, engage staff and those served for guidance on current operations, and methods of improvement.
(C) For Congress, States and Municipalities, provide funding to close "the gap" between available affordable and low-income housing, and what is needed. One major cause of homelessness is the lack of affordable housing. Require all communities to build this housing, where those housed (or their children) have an equal economic and educational opportunity...

Concerns over Riverside Shelter

Zack Barowitz
8:18 AM
to Planning Board

Chair Mazer and Honorable Members of the Planning Board:

Thank you for considering the application of the Homeless Services Center. As this is a large and complex project I urge the Board to give the highest level of scrutiny to all aspects of the proposal. Some areas of concern include:

- **Health:** As we have seen with the Covid pandemic disease spreads quickly to concentrations of the most vulnerable people. It should be noted that disease is not limited to viral infections but substance abuse, mental illness, and other affiliations that appear at higher rates among homeless populations. *The project is too large.*
- **Transportation:** This location is very difficult to access from downtown and other service locations; a fully flushed and vetted transportation plan is necessary for the approval of this use. Personally, I do not see a way for this site to meet the access needs of the population who will be using it. *The project is too remote.*
- **Supporting Data:** The applicant has not provided sufficient data to support the efficacy of the project neither in terms of cost nor level of care. Nor has the applicant provided any data to support that a smaller-scattered shelter approach would be more expensive or less effective. The project seems conceived not for the benefit of shelter guests but to minimize community pushback. *The project is unlikely to succeed.*

This project is a legacy decision, one that citizens and future leaders will be dealing with for many years; please consider whether or not it is the right choice for now and for the future.

Cordially,
Zack Barowitz

--
207-838-6120
917-696-5649
ZacharyBarowitz.com

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Planning and Urban Development Department
Planning Division

Subject: Design Review – 638 Riverside Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Tuesday, August 17 2021

The shelter proposal at 638 Riverside Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Matt Grooms, Senior Planner, and Kevin Kraft, Deputy Director, against *the Two-family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards* (Section (d) of the Design Manual).

Design Review Comments*: (questions and unmet standards in red)*

- Label elevations with materials

(i) Two-family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters

Standard (1) Exterior Design – The nearest residential neighborhood is a recent apartment complex with brick, clapboard, porches, pitched roofs. However, there are no residential areas directly abutting this building and as an institutional use, should not be expected to use the same architectural features as smaller, residential buildings.

- The one-story building includes variation in the roofline and a mix of fenestration, materials, and awnings/canopies to provide variation and visual interest
- Windows were added to the front entrance area. A variety of window types and sizes are used appropriate to the programs within the building.
- The material palette can help make the building feel residential rather than industrial. However, this large, one-story building should not be expected to recreate the character of small-scale residential buildings. The brick and panel provide fine-grain scale and use colors that relate to the context but are also appropriate for this building's scale and use.

Standard (2) Relationship to the Street – The placement of buildings is varied in this location. Most buildings are industrial uses without consistent relationship to the street, parcel shapes/sizes, or consistent fabric. The proposed building is consistent with the lots around it – the building is placed away from the street and provides privacy with landscape buffer.

Standard (3) Open Space – Several types of open space – passive and active – are provided for the residents.

- The circulation and access points were clarified in the latest submission.
- Access points are emphasized with canopies, paths in the landscape plan

- A transition area between the common room and landscape features was added to provide scale, transition, and comfortable ways to use the spaces that feels comparable to a residential porch.
- Landscape plans show each landscape area and where accessed through the building, what is separated or fenced from vehicle circulation.

Standard (4) d. Windows and Storage – Windows provided throughout the living spaces.

- Storage provided in locker room and at each bed location.

Standard (5) Screening of Parking – The parking areas are adequately placed, scaled, and screened to minimize the impacts on the abutters and street.

- No residential abutters, the abutting property is lined with screening landscape
- Parking is placed away from the street with wide landscape areas between the street and property line and the surface parking areas

Standard (6) Lodging House Conversion – Not applicable

Att. 2

Portland Maine Yes. Google's good here.

Matthew Grooms <mgrooms@portlandmaine.gov>

638 Riverside Street - HSC Final Comments

Lauren Swett <lswett@woodardcurran.com> Fri, Sep 10, 2021 at 12:35 PM
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Hi Matt,

I have reviewed the resubmittal for 638 Riverside Street, and have the following remaining items:

- The Applicant has provided the FocalPoint design worksheet completed by the project engineer. Per MaineDEP requirements for the FocalPoint proprietary system, this design needs to be verified by the manufacturer. That additional confirmation is required for the system. The worksheet includes a place to check off that the design has been reviewed by the manufacturer, and this has not been included.
- A stormwater maintenance agreement was included in the August stormwater management report. A final executed version will be required.
- I believe the Applicant is still waiting for confirmation of utility ability to serve.
- SLODA – For submission to the DEP for record, the SLODA application package should be updated to include the current stormwater management report and design plans that include the final stormwater management systems. The SLODA PDF in eplan currently includes the older stormwater management report and plans that were based primarily on treatment by buffers. I would also recommend that the final SLODA package include the utility ability to serve letters, the various agency responses (MNAP and SHPO have both now been submitted separately), and the FocalPoint design confirmation (as noted above) as this is a specific requirement of the DEP for BMP approval.

I am in agreement with the proposed Flooding Standard waiver for the site – the proposed stormwater management systems will result in reduction of flow, and this latest design has incorporated further emergency spillway design into each of the proposed stormwater treatment measures to ensure a stabilized place for overflow in the event that there is a larger storm event.

Please let me know if you have any further questions.

Thanks,

Lauren

[Quoted text hidden]

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.

PLANNING BOARD REPORT
PORTLAND, MAINE

57 Douglass Street
ZN-001640-2021
Douglass Commons, LLC, Applicant

Submitted to: Portland Planning Board **Public Hearing Date:** September 14, 2021	**Prepared by:** James Dealaman, Planner **Date:** September 10, 2021

I. INTRODUCTION

Douglass Commons, LLC is requesting a zoning map amendment to map an R-5a Residential zone onto portions of property located at 43 and 91 Douglass Street (i.e. 57 Douglass Street) in the Libbytown neighborhood. The subject area for the zone change is approximately 148,228 square feet in size and is currently zoned R-5 Residential.

The requested actions would facilitate an increase in density for a future Planned Residential Unit Development (PRUD), which is in accordance with a Request for Proposals (RFP) released by the City in April of 2020, soliciting proposals for an age-inclusive and affordable housing proposal at this location. At present, the applicant has entered into a Purchase and Sale agreement with the City, and has identified that a zoning map amendment is required to complete the project as presented in their bid.

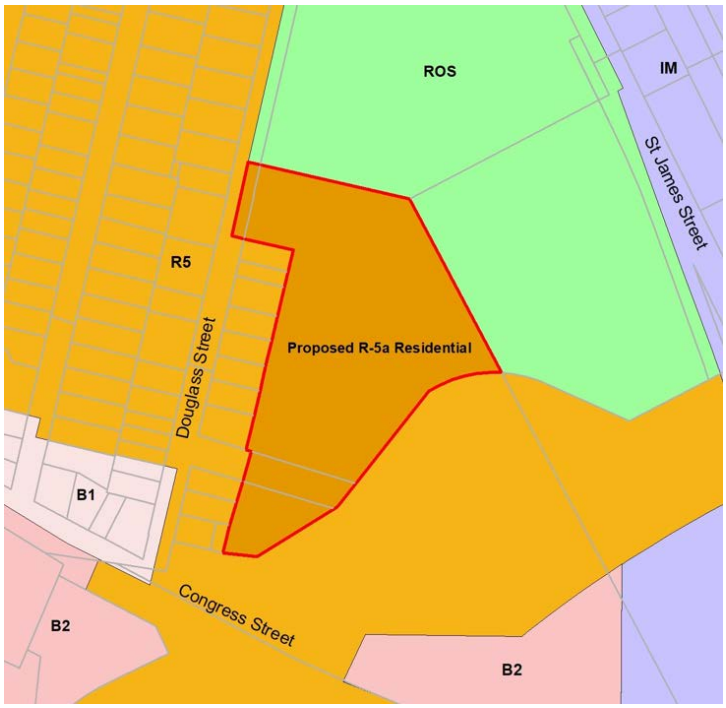


Figure 1: Existing zoning context with approximate rezoning area outlined in red

The Planning and Urban Development Department mailed 101 notices advertising this meeting to interested parties and property owners within 500 feet of the site. The legal advertisement ran in the September 3rd and September 4th, 2021 editions of the *Portland Press Herald*. The applicant's Neighborhood Meeting (Attachment F) was held on August 3, 2021, which was attended by 21 members of the public. Discussion at the meeting included: interest in reducing the number of cars accessing the site, alternative modes of transportation, adding EV charging stations and solar panels, improving lighting condition and walkable spaces, need for parking areas during on-street parking bans, roadway/intersection improvements, and feedback about landscaping and drainage.

As of the writing of this memorandum, no public comment has been submitted to staff.

Owner/Applicant: Douglass Commons, LLC
Agent: The Szanton Company

Figure 2: Aerial View of Site (facing north)

II. PLANNING BOARD WORKSHOP

The Planning Board held a workshop on July 27, 2021 as an introduction to the applicant's proposed rezoning. At this meeting staff indicated that the City's preference would be to extend the proposed rezoning area to fit the existing parcel boundaries.

III. PROJECT DATA

Existing Zoning	R-5 Residential
Proposed Zoning	R-5a Residential
Existing Use	Vacant Lot
Proposed Use	Planned Residential Unit Development (PRUD), Multi-family housing

IV. EXISTING CONDITIONS

The subject property is comprised of two vacant city-owned parcels at 91 and 43 Douglass Street (Plan 1). The property is bounded by City-owned Dougherty Field to north, property owned by Maine Department of Transportation (MDOT) to the east and south, and to the west the site is bordered by a mix of 11 residential properties made up of four 3-Family, two 2 Family, and five single family homes built between 1850 and 1930s.

Historically, the site consisted of salt marches and wetlands until sometime prior to 1866. Until 1900 the site was used as a brick yard, with a portion of the site also containing a residential structure. The City acquired both parcels around the late 1930s through mid-1940s. In 1962, the West School was built and used as an elementary school until being used as an adult educational facility beginning in the mid-1980s,

which was eventually vacated in 2013, as the building had reportedly fallen into significant disrepair. The West School building was eventually demolished in 2016.

The site is proximate to a number of commercial uses (zoned B-2 Community Business) which are along Congress Street to the south. The surrounding area also includes the Kiwanis Community Pool on the upper portion of Dougherty Field to the north. A B-1 Neighborhood Business zone is mapped at the intersection of Douglass Street, Brighton Avenue and St. John Street. There are also a number of commercial/industrial land use types that exist along St James Street to the north east which are zoned I-M Industrial. To the west there is approximately four blocks of mid density (R-5) residential neighborhood that becomes lower density (R-3) residential zoning heading further west, which together provide a primarily residential context. Also serving these neighborhoods, at the end of Stevens Avenue, a priority corridor identified in the City's Comprehensive Plan, is the Westgate Shopping Center (zoned B-2 Community Business), a roughly 13-minute walk from the development site.

The site is in close proximity to Portland METRO bus routes 1, 5, 9A, and 9B, which run along Congress Street, Park Ave, and the Fore River Parkway. The site is also 0.5 miles from the Portland Transportation Center – Amtrak Downeaster and Concord Coach Station. Further south, beyond the Portland Transportation Center is Thompson's Point, a large-scale mixed-use development including light industrial, restaurant, and venue space as well as the Portland Children's Museum.

Prior to this application, there was a recent zoning map amendment in the vicinity approved by the City Council on May 3, 2021 (Order No. 226-20/21) rezoning a property at 1217 Congress Street and adjacent parcels from a B-1 Neighborhood Business zone to a B-2 Community Business zone.

Figure 3: Aerial View (facing West) Showing Surrounding Uses

V. BACKGROUND

On December 16, 2019, the City Council approved the sale of the property (Resolve 10-19/20) located at 43 and 91 Douglass Street based on a recommendation from the City's Housing Committee to market the property to help meet the City's goals of constructing housing.

A. RFP for Disposition of 43 & 91 Douglass Street

In 2020, the City of Portland released an RFP to dispose of three separate City-owned properties, with the property at 43 and 91 Douglass Street being among them (Attachment 1). The criteria for consideration centered around the ability to provide high quality and age-inclusive affordable housing at-scale, and integrated with the surrounding community.

Aside from affordability requirements, the RFP requires that the development be designed in accordance with Portland's Green Building Code, and in a manner that is compatible with the pattern, scale, massing and materials of surrounding development.

The Szanton Company was selected as the winning bid, and Douglass Commons LLC entered into a purchase and sale agreement with the City on May 21, 2021 for development of this site.

B. Purchase and Sales Agreement for 43 & 91 Douglass Street

The Purchase and Sale Agreement (Attachment E) has been signed and both Environmental Assessments are now completed. The sale is contingent upon a number of conditions, one of which requires an 18-month due diligence period, so the transfer of the property from the City to the applicant is expected to occur no later than November of 2022.

The agreement specifies that the developer shall be responsible for the creation of a certain number of residential units, with a portion of those being deed restricted.

VI. CONCEPTUAL DEVELOPMENT PROPOSAL

The proposed rezoning from R-5 to R-5a would facilitate increasing the allowable density for a Planned Residential Unit Development (PRUD), in which the applicant intends to create 108 residential units made up of 52 cooperative housing units leased individually to resident shareholders and 56 rental apartment units. According to the Purchase and Sale agreement, a minimum of 92 units would be deed restricted.

Figure 4: Perspective View of Douglass Commons Shared-Street

The development contemplated is conceptual at this stage – no site plan application has yet been submitted - but the current Douglass Commons plan envisioned by the applicant includes a concept showing four 2-story buildings, three 3-story buildings, and one 4-story building. The plan also intends to provide a "woonerf" or shared street along the middle of the

site as well as community gardens and walking path connections to Dougherty Field. Should the proposed rezoning be approved by the City Council, a Major Site Plan application would be submitted by the applicant and reviewed by the Planning Board which, in addition to applicable land use standards, would also include a design review for PRUDs in the R-5a zone, and would also be subject to the standards contained in the City's Technical Manual.

Figure 5: Conceptual Site Plan of Douglass Commons

VII. PROPOSED ZONING MAP AMENDMENT

The applicant is proposing a zoning map amendment to rezone an existing R-5 Residential zone to an R-5a Residential zone for two existing parcels (CBL 078 C002, 078 B007). (See Figure 6). The R-5a Residential zone is a moderate-density residential zone mapped for off-peninsula locations.

The current application incorporates staff's recommendation to extend the rezoning boundary to be coterminous with the existing parcel boundaries.

The two zones vary slightly in terms of the form of building that is promoted through the dimensional requirements. R-5a would allow an increase in density. R-5a permits 1,600 square feet of lot area per dwelling unit while the existing R-5 zone permits 3,000 square feet. Both R-5 and R-5a zones allow the same maximum building height, 35 feet.

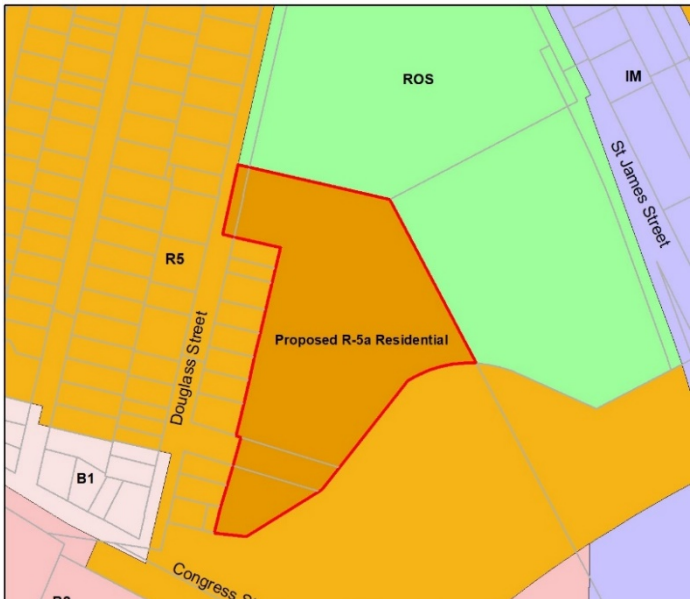


Figure 6: Proposed Zoning Map Amendment to R-5a Residential

For buildings utilizing the PRUD dimensional standards, the R-5a zone requires 1,600 square feet net land area per dwelling unit, 200 square feet of common recreation open space area per dwelling unit, which is 100 square feet less than the requirement for PRUDs under the R-5 standards, and increases in the maximum structure height by 20 feet (from a 35 foot to 55 foot height maximum) than could occur under existing R-5 PRUD dimensional requirements.

Furthermore, in order to promote development of low- and moderate-income developments as PRUDs, any project in which more than 50% of the units are low-income or workforce units for rent or for sale may utilize the following dimensional bonuses and changes as outlined in Section 18.2.4.B:

- Minimum lot area per dwelling unit is reduced by 50%.
    - R-5a PRUD Net land area per dwelling unit: 1,600 SF
    - R-5a PRUD Net land area per Dwelling unit with Affordable Bonus: 800 SF
- Maximum number of units and maximum length of buildings do not apply but may be set through site plan review.
- Minimum building setbacks may be reduced to 10 feet.
- The PRUD may cross public rights of way provided that the right of way does not count towards minimum lot size nor towards any open space requirements.
- Minimum recreation open space area is reduced to 200 square feet per dwelling unit of common area designated for recreational purposes by the residents. Minimum contiguous size setbacks do not apply and shall be set through site plan review.
- The Planning Board's *Design Manual*, design standards, and guidelines with respect to PRUDs shall apply in full to PRUDs utilizing this subsection.

VIII. ZONING ANALYSIS

A. Existing Zoning: R-5 Residential

The current R-5 zone allows for mid-density residential development at a maximum density of 6,000 square feet for residential uses, and a maximum density of 3,000 square feet per dwelling unit for developments that meet the definition of PRUD[1].

The City's zoning code describes the purpose of the R-5 Residential zone as:

"To provide appropriate areas of the city for medium-density residential development characterized by single family, two-family and low-intensity multifamily dwellings on individual lots; to ensure the stability of established medium-density neighborhoods by controlling residential conversions; and to provide for planned residential unit development on substantially-sized parcels."

[1] Planned Residential Unit Development (PRUD): A residential subdivision consisting of attached or detached dwellings intended for separate ownership and land to be owned and used in common, with open spaces, recreational areas, access ways, and buildings which are designed, built, and managed in accordance with a unified development plan.

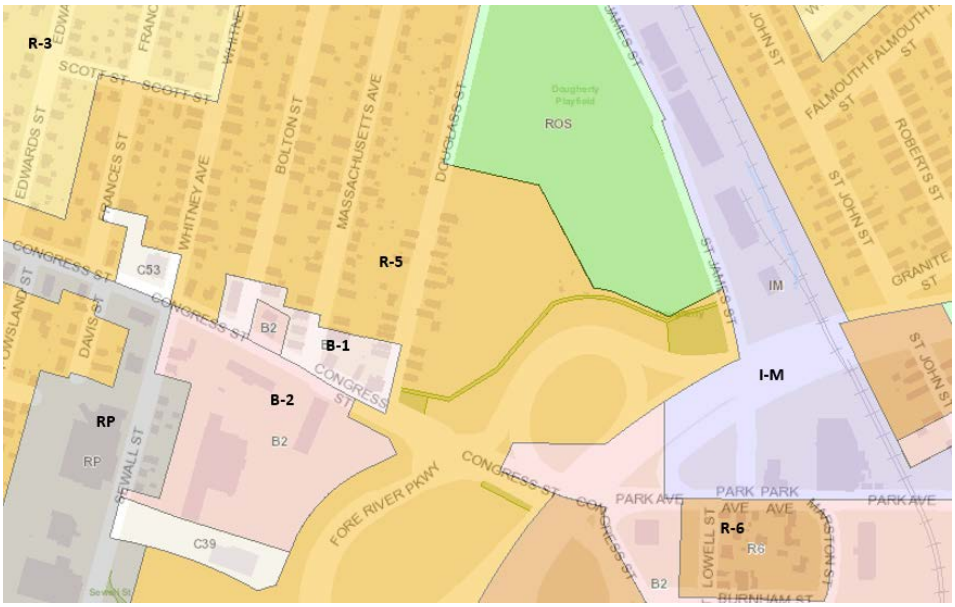


Figure 7: Existing Zoning Map

B. Proposed Zoning: R-5a Residential

The purpose of the R-5a zone is described as:

"To provide for moderate-density residential development in off-peninsula locations that can provide a unique residential living experience with a high degree of natural site amenities; and to provide areas of the city in the general proximity of the peninsula that have the capability for adequate municipal services, including traffic corridors with adequate traffic capacity, that can appropriately accommodate a more intensive use of land than other lower-density zoned land and be compatible with surrounding neighborhoods; and to increase affordable housing opportunities in off-peninsula locations by providing a moderate-density zone."

Planning staff believe that R-5a is an appropriate district for the subject area due to the existing residential character and scale of the proposed rezoning area, site proximity and access to public transit, as well as being located a short walking distance to Congress Street, a priority corridor identified in the City's Comprehensive Plan. The site is also situated between two priority nodes (i.e. targeted locations in need of future investment or planning) that are denoted as areas to 'Transform,'. Additionally, the subject property is located beside Dougherty Field an existing public open space which is identified in the City's Comprehensive Plan as an open space connection to be conserved.

An R-5a zone change will facilitate an increase in density for future residential PRUD developments as the net land area per dwelling unit in the R-5 zone is 3,000 square feet while net land area per dwelling unit under R-5a dimensional standards is 1,600 square feet, therefore permitting more dwelling units per lot area at this transit accessible location, within walking distance to public open space and nearby commercial districts. In addition, the maximum permitted building height would increase to 55 feet, which is an appropriate scale for this location, which is bounded by open space on three sides and the 295 interchange to the east.

Figure 8: Site Location (shown in red) in Relationship to Priority Nodes & Corridors

Staff have conducted an analysis comparing the proposed R-5a zone requirements with the existing R-5 Residential Zone and have highlighted the differences in the tables below.

Use Summary:

R-5a does not permit the following uses that are either conditional or permitted in the R-5 Zone:
Multiplex; post-secondary schools; special deeds independent dwelling units; lodging house; elementary, middle, and secondary schools; hospitals; places of assembly; off-street parking

R-5a permits the following uses either as conditional or permitted, but are not expressly permitted in the R-5 Zone:
Congregate care facilities; intermediate care facilities; long-term and extended care facilities

Table 1 provides a comparison of the permitted uses between existing and proposed zone. Uses marked with a 'P', are permitted uses in the zone. A 'C' indicates a conditional use, otherwise uses are not permitted. Highlighted in yellow shows any changes between zones

	TABLE 1: PERMITTED AND CONDITIONAL USES IN R-5 & R-5a Residential Zones	R-5	R-5a	Notes
Residential	Single-family dwellings	P	P	
	Two-family dwellings	P	P	
	Multi-family dwellings	C	P	
	Multiplex	P		
	Congregate care facilities		P	
	Handicapped family units	P	P	
	Planned Residential Unit Developments	P*	P*	(*Must consist of horizontally or vertically attached dwelling units, or a series of such dwelling units, with all land owned and used in common. PRUDs shall be subject to review and approval by the Planning Board under Article 15)
	Special needs independent dwelling units	P		
	Lodging houses	C*		(*In R-5 conversions of existing two-family or multiplex structures into lodging houses are permitted as a conditional use, provided that the lodging house shall not be located within 500 ft. of another as measured along street lines.)
	Sheltered care group homes	C	C	
Institutional	Elementary, middle, and secondary schools	C		
	Governmental uses	P	P	
	Hospitals	C		
	Intermediate care facilities	C	P	
	Long-term and extended care facilities	C	P	
	Places of assembly (<10,000 SF)	C		
	Places of assembly (>10,000 SF)	C		
	Preschool facilities	C	C	
	Post-secondary schools	C		
Comm.	Bed and breakfasts			
	General offices (<5,000 SF)			
	Hostels			
Other	Agriculture			
	Cemeteries			
	Off-street parking	C		
	Parks and open spaces	P	P	
	Raising of domesticated animals			
	Solar energy system (minor)	P	P	
	Utility substations	C	C	

Table 2 provides a comparison of the dimensional requirements between existing and proposed zone. Highlighted in yellow shows any changes between zones

TABLE 2: Zoning Requirements by Use			**R-5** *(See Table 3 for PRUD standards) (Single-family homes may be built on small lots per Small Residential Lot Dimensional Requirements, but are not included in this report)*	**R-5a** *(see Table 3 below for any of the following uses: PRUD, multi-family development of 4 or more units, congregate care, and intermediate, extended, or long-term care facilities unless otherwise noted below)*
Lot area (min.)	Governmental		6,000 SF	
	Hospital		5 ac.	
	Intermediate or long-term, extended care facility		2 ac.	1.5 ac.
	Lodging house		9,000 SF	
	Multiplex		9,000 SF	
	Place of assembly	<10,000 SF	.5 ac.	
		>10,000 SF	1 ac.	
	Post-secondary school		2 ac.	
	Elementary, middle, and secondary school		30,000 SF	
	Raising of animals			
	Residential		6,000 SF	6,000 SF /2 ac. max (Applies to 1-, 2-, and 3-family dwellings only)
	All other uses		6,000 SF	
Lot area per dwelling unit (min.)			3,000 SF	1,600 SF
Lot area per rooming unit (min.)			1,000 SF	
Lot area per multiplex unit (min.)			4,500 SF	
Lot area per Special needs independent dwelling unit. (min.)			3,600 SF	
Street frontage (min.)			50 ft.	50 ft.
Lot width (min.)			60 ft. 90 ft. for multiplex	60 ft.
Front setback (min.)			20 ft.	25 ft.
			Or average depth of adjacent front yards	
Rear setback (min.)			20 ft.	25 ft.
	Detached accessory (< 250 SF footprint)		5 ft.	5 ft.
Side setback (min.)	<1.5 stories to 1.5 stories		8 ft.	10 ft.
	2 stories		12 ft.	14 ft.
	2.5 stories		14 ft.	16 ft.
	Detached accessory (< 250 SF footprint)		5 ft.	5 ft.
	On side street (min.)		15 ft.	20 ft.
			Or depth of front yard directly abutting the lot.	

TABLE 2: Zoning Requirements by Use (continued)		R-5 (continued)	R-5a (continued)
Stepbacks (above 35 ft. when property line abuts a residential zone)(min.)			
Structure height (max.)		35 ft.	35 ft.
	Detached accessory	18 ft.	18 ft.
Lot coverage (max.)		40%	30%
Landscaped open space ratio (min.)			
Width of garage opening on front façade (max.)			

Table 3 provides a comparison of the PRUD dimensional requirements between existing and proposed zone. Highlighted in yellow shows any changes between zones

TABLE 3: PRUD Dimensional Requirements (R-5 & R-5a)	R-5	R-5a *(Applicable to PRUD, multi-family development of 4 or more units, congregate care, and intermediate, extended, or long-term care facilities unless otherwise noted)*
Lot area (min.)	2 ac.	2 ac. (only applicable to PRUD, congregate care, and multi-family development of 4 or more units)
Net land area per dwelling unit (min.)	3,000 SF	1,600 SF (only applicable to PRUD, congregate care, and multi-family development of 4 or more units) (Minimum land area per intermediate care facility resident: 8,000 SF lot area for first 35 residents, plus 350 SF for each additional resident.)
Units per building (max.)	12	
Average number of units per building (max.)		
Structure height (max.)	35 ft.	55 ft.
Building length (max.)	140 ft.	
Length of accessory garage structure (max.)	60 ft.	
Building setback from external subdivision property lines (min.)	Bldg. Length 100 ft. or less: 25 ft.	Bldg. Length 100 ft. or less: 25 ft.
	Bldg. Length >100 ft.: 35 ft.	Bldg. Length >100 ft.: 35 ft.
Distance between detached PRUD dwelling units (min.)		
Common recreation open space area (min.) (Recreation open space area shall be designated on the site for recreation purposes. Such recreation areas shall be usable, level graded, dry, accessible and properly drained. At a minimum, a contiguous area of 6,000 SF with a minimum dimension of 50 ft. shall be provided which shall at least be usable as a multi-purpose field. Such recreation areas shall be located at least 25 ft. from dwelling units.)	300 SF/D.U	200 SF/D.U. (only applicable to PRUD, congregate care, and multi-family development of 4 or more units)
Habitable space elevation	No habitable space in a PRUD shall be below grade, except basements that are a part of and below above-ground units.	

XI. COMPREHENSIVE PLAN ANALYSIS

Portland's Plan 2030

Comprehensive Plan goals and policies (state and local) relevant to the proposed zoning map amendment are included below as well as provided in the analysis submitted by the applicant (Attachment D). The change to R-5a Residential aligns with these vision statements and goals, by creating a new opportunity for an affordable, and well-connected new housing development accessible to public transit and within walking distance to a variety of services supporting the Plans goal of *Complete Neighborhoods, and increasing, preserving, and modifying the overall supply of housing city-wide.* In addition, the proposed project supports the City's desire to *leverage underused properties* owned by the City. The proposed rezoning allows for maximizing development on an underutilized lot, , which creates the opportunity to provide affordable homes, with access to public transit, services, and open space. Relevant Comprehensive Plan goals have been excerpted below:

Vision Statements:

- Secure - We will be committed to accessible housing and healthy food for all our residents.
- Authentic - The uniqueness and integrity of our neighborhoods will be maintained and enhanced.
- Connected - We will foster accessible linkages between where we live, work, shop, and play.
- Connected - We will enable meaningful access to the natural world and recreational opportunities as a central component of community health.

Housing: A Livable City

- Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.
- Pursue policies to enable people who work in Portland to have the option to live in Portland.
- Reinforce existing housing tools, policies, and programs while continuing to explore emerging best practices.
- Evaluate whether current zoning allows for new development consistent with historic patterns of form, density, and/or use, as well as whether it allows for priority growth areas.
- Consider the sale of City-owned land that may be appropriate for housing development.
- Consider incentivizing affordability restrictions as part of City-owned property transactions, as well as the potential to return improved properties to the City's tax rolls.
- Create, promote, and facilitate safe, affordable, and practical housing solutions that will meet the evolving needs of Portland residents as they age.

Recreation & Open Space

- Pursue opportunities, in collaboration with partners, to create new open spaces in areas that are currently underserved.
- Pursue opportunities for new and enhanced walking and biking trails as a means of filling existing gaps and investigate paper streets, vacant land, medians, and other often overlooked areas for the potential for park linkages, trails, and other improvements to the urban landscape.
- Prioritize open space acquisition and programming toward creating linkages where there are gaps in the network, particularly between Stroudwater and the Fore River; Evergreen Cemetery and the

Presumpscot River; Portland Transportation Center and Bayside; Martin's Point and the Back Cove; and the Western Waterfront and the Fore River.

Future Land Use

- *Complete Neighborhood* – Portland's Plan recognizes that strong, complete neighborhoods are fundamental to the city's overall health. Portland's intent for its predominantly residential neighborhoods is one where all residents regardless of age, ability, or income have access to the basic necessities of daily life - high quality and affordable housing, schools and other civic functions, food, open space, other amenities and services - within a walkable, bikeable distance.
- *Connecting the Chain* – Portland's Plan recognizes that physically integrated transportation systems, utilities, and open spaces provide the structure for the city's growth, and that a well-connected system is more efficient and more resilient. An integrated transportation system allows residents to access jobs, food, healthcare, and recreation from their homes while planning for an unbroken network of open space connects neighborhoods and improves access to the outdoors.
- *One Portland* - Portland's Plan is a vision for One Portland, where the form and characteristics of neighborhoods vary, but the city functions as a cohesive whole. No one area of the city carries all the expectations for accommodating development and all areas can expect appropriate City services and amenities.

X. STAFF RECOMMENDATION

Planning staff recommend the proposed zoning map amendment as drafted and presented within this report for the Planning Board's consideration.

XI. REQUISITE COUNCIL ACTION

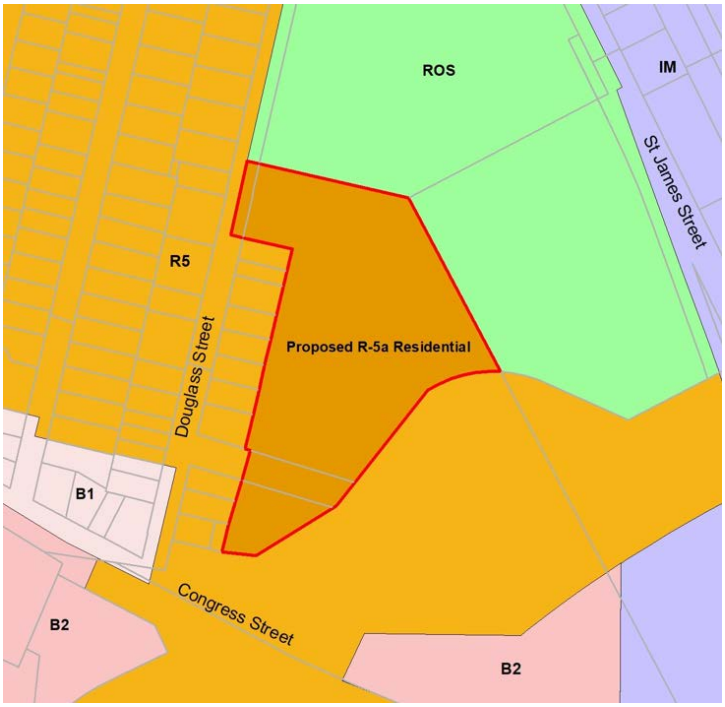
Any proposed rezoning, regardless of whether it is recommended by the Planning Board, must be approved by City Council vote in order to take effect.

XII. PROPOSED MOTIONS FOR THE PLANNING BOARD TO CONSIDER

A. Map Amendment

On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in public hearing on September 14, 2021 for the application ZN-001640-2021, the Planning Board finds that the proposed zoning map amendment for the subject parcel, 57 Douglass Street, and parcels within the proposed rezoning boundary (43 and 91 Douglass Street) from R-5 Residential to R-5a Residential **[is or is not]** consistent with the Comprehensive Plan for the City of Portland; and

Therefore, the Planning Board [**recommends or does not recommend**] to the City Council adoption of the zoning map amendment for the area of land that includes 57 Douglass Street, and parcels within the proposed rezoning boundary (43 and 91 Douglass Street) from R-5 Residential to R-5a Residential as shown.



XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

Attachment 1. RFP

APPLICANT'S SUBMITTAL

A. Project Description
B. Map Amendment Submission Checklist
C. Proposed Map Amendment
D. Consistency with Comprehensive Plan Analysis
E. Douglass Commons Purchase and Sale Agreement
F. Neighborhood Meeting Documentation

PLANS

Plan 1. Preliminary Boundary Survey
Plan 2. Vicinity Plan
Plan 3. Conceptual Plan

CITY of PORTLAND, MAINE
Request for Proposals for Disposition of City-Owned Property
Located at 43 & 91 Douglass Street
RFP #2020-2

I. NOTICE AND SPECIFICATIONS

The City of Portland, Maine seeks proposals from qualified developers for the creation of residential housing at 43 & 91 Douglass Street. The site is designated on the City of Portland Tax Assessor's Map as lot CBL 078 C002 & 078 B007.

Sealed proposals for the project, including an original, seven (7) copies, and one (1) digital copy, as specified herein, will be received by the Purchasing Office, Room 103, City Hall, 389 Congress Street, Portland, Maine 04101, until 3:15 p.m., Tuesday, June 16, 2020, at which time they will be publicly opened.

Proposals shall be submitted, and returned in sealed envelopes plainly marked on the outside "Disposition and Development of Property Located at 43 & 91 Douglass Street".

Proposals that are late, unsigned or submitted via fax will not be accepted. Proposals from individuals not registered with the Purchasing Office may be rejected; receipt of this document directly from the City of Portland indicates registration. Should a person receive this Request from a source other than the City, please contact 207-874-8654 to ensure that you are listed as a recipient for this proposal.

All questions must be submitted in writing to the Purchasing Office. These may be mailed, hand delivered, faxed to (207) 874-8652 or e-mailed to mff@portlandmaine.gov and be received no later than five (5) business days prior to the opening date. Questions received after this time will not be addressed. Any interpretation, correction, or change of this document will be made only by written addenda. Changes in any other manner will not be binding on the City and proposers should not rely on. Proposers should not have contact with any City staff with regard to this proposal unless to obtain general public information as specified in the document.

The disposal of this real estate shall be on the basis of a negotiated proposal, with the City of Portland reserving the right to refuse any and all proposals. *All proposers are advised that the property will be sold "as-is" and "where is", in its existing condition, with no warranties either expressed or implied.* The City makes no representations or warranties about of any of the information about the property set forth herein, which is provided to proposers for their convenience only. The successful proposer shall be responsible to inspect the property, or to hire its own professionals to do so. The City, and its agents, make no representations or warranties with respect to the title of the property, the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of the property, or as to the fitness of the property for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the property. The City disclaims any and all responsibility for injury to proposers, their agents or others while examining the property or at any other time. The City will not be responsible for any broker's commission.

Any and all improvements made to said property must be done in accordance with existing City Codes and Ordinances.

II. GENERAL INFORMATION

Summary of Request:

The City of Portland is committed to providing housing opportunities and has set a goal to evaluate the use of City-owned property to construct housing. As one-step in accomplishing this goal, the City of Portland will accept proposals for the development of housing on the lot located at 43 & 91 Douglass Street, which currently is a vacant lot but was the former site of the West School.

This request for proposals results from the December 16, 2019 approval by the Portland City Council (Resolve 10-19/20) on the recommendation of the Housing Committee to market the City-owned vacant property located at 43 and 91 Douglass Street.

The City of Portland uses the RFP process to ensure that public resources are utilized for maximum public benefit while accomplishing specific objectives and providing fair access to all applicants.

Site Information:

a. Location: 43 & 91 Douglass Street, as identified in the City of Portland Assessor's records as lot CBL 078 C002 and 078 B007, in the R-5 zone. The lot includes the former site of the West School. The site for disposition includes a portion of 91 Douglass Street, but not the entire lot (See Attachment 2).

b. Existing Conditions: 43 & 91 Douglass Street is located on two parcels with frontage on Douglass Street in the Libbytown neighborhood. A right-of-way bisects the two parcels. The surrounding context is predominantly residential with the majority of homes in the area being one and multi-family structures. Dougherty Play Field abuts the property to the north.

c. Current use: Vacant lot.

d. General Dimensions: 43 Douglass Street (estimated at .3981 acres), and an estimated 2.85-acre portion of 91 Douglass Street.

e. Current Zoning: R-5. The minimum lot size in the R-5 zone is 6,000 square feet for residential development (single-family and two-family), 9,000 square feet for a multi-plex development (three-family or more), and 2 acres for a planned residential unit development (PRUD). This parcel would allow for residential, multi-family, and PRUD development. The minimum lot area per unit in a PRUD is 3,000 square feet; the maximum units per building is 12 units. At an estimated 141,570 square feet, the maximum number of residential units that could be developed within a PRUD is 47 units. For complete zoning requirements, please refer to Chapter 14, Land

Use, of the City Code.

f. Rezoning: Higher density zoning that furthers exceptional projects and other city goals as outlined in Section III may be considered. It should be noted that changes to zoning require both Planning Board and City Council approval.

g. Condition of the property at the time of sale: This parcel is the location of a former city-dump, and later the West School. A natural gas line and gas company easement are located in the right-of-way and the 43 Douglass Street parcel thus precluding development over these sites. A 40' wide sewer easement is also identified in the unbuildable portion of the site.

h. Environmental Conditions: A Phase II Environmental Site Assessment (ESA) has been completed to evaluate current environmental conditions. Based on findings, special soil disposal restrictions may be required. Participation in the Maine DEP Voluntary Response Action Program (VRAP) should be considered. The Phase II ESA will be available on-line.

i. Proposers are urged to investigate water sources and utility connection requirements with the Department of Public Works.

III. CITY GOALS

The City's primary goals for the use of the property are:

1. Developments shall provide mixed income units. All units must be affordable to households earning 60% to 120% of the area median income (AMI). Currently, 60% AMI for a family of four is $55,800 and 120% AMI for a family of four is $111,600.

   Affordable means that the percentage of income a household is charged in rent and other housing expenses including utilities, or must pay in monthly mortgage payments (including real estate taxes, mortgage insurance, condominium/HOA fees, insurance and utilities), does not exceed 30% of a household's gross income, or other amount established in city regulations that does not vary significantly from this amount.

   Restrictions on the affordability of units must be in place for a minimum of 30 years for homeownership units, and the longest period allowed by law for rental units.

2. Development of mixed income homeownership or rental housing of excellent building and site design. Design principles should promote efficient use of land to create a development that is compatible with the existing pattern, scale, massing, and materials of the surrounding neighborhood. The development's buildings shall be designed to meet the City's Green Building Code.

3. Rezoning may be considered to support increase housing development opportunities or maximize the number of allowable housing units on the property.

4. Developments shall create housing options that are age inclusive.

The general terms for this real estate transaction include:

- Units must be used as the principal residence of the owner/tenant and owner/tenant shall not use the unit for the conduct of business (except for a home occupation allowed under the City of Portland zoning ordinance) or as an investment property. Units shall not be rented for short-term periods of one to thirty days.
- Property Sale Price. The City expects to receive Fair Market Value ("FMV") for the property.
- Alternative Ownership Models. Alternative ownership models that will encourage a mixed income community with long term affordability for the maximum number of units, such as limited equity units, co-housing, cooperative, or a community land trust, may be considered in order to ensure the units affordability over time.
- Proposals must outline how they will maintain affordability.
- Other City Incentives. Other city financial incentives may be considered to support increase housing development opportunities or maximize the number of allowable housing units on the property.

IV. PROPOSED SCORING

An internal staff Committee will review proposals received, and will apply the following selection criteria in reviewing and scoring the applications.

Proposed use to achieve the City of Portland's goals

40 points

1. Market Demand - 20 points
    a. 20 points - all units meet the City's Goals and Terms noted in Section III
    b. 15 points - at least 75% of the units meet the City's Goals and Terms noted in Section III
    c. 10 points - at least 50% of the units meet the City's Goals and Terms noted in Section III
    d. 0 points - project does not does not meet the City's Goals and Terms noted in Section III
2. Economic diversity - 10 points
    a. 10 points - creates housing options which promote economic diversity in the neighborhood in which the development is located
    b. 0 points - does not promote economic diversity
3. Age Inclusive – 10 points
    a. 10 points – creates housing which is age inclusive
    b. 0 points – does not create housing which is age inclusive

Impact on surrounding neighborhood, including design. **25 points**

1. Project Design -15 points
    a. 15 points - the proposal is consistent with design characteristics
    b. 10 points - the proposal is an adequate fit with neighborhood characteristics
    c. 0 points - the design is a significant outlier
2. Amenities and unit design - 10 points
    a. 10 points - amenities & unit design are well thought out and appropriate for residents
    b. 5 points - amenities & unit design are adequate

c. 0 points - amenities and unit design raise significant concerns that resident needs will not be adequately addressed

Applicant's ability to complete project, including financial feasibility, development team experience, capacity, and timeframe for completion. 35 points

1. Readiness to proceed - 15 points
    a. 15 points - all projected sources of funding include letters of commitment or interest are projected at terms and conditions consistent with the City's prior experience with the funder
    b. 10 points - most projected sources of funding include letters of commitment, letters of interest, or, if no letter is included, are projected at terms and conditions consistent with the City's prior experience with this funder
    c. 0 points - one or more sources are projected on terms that are not consistent with the City's prior experience with the funder and are not documented by letter(s) from funder(s)
2. Track record of development team - 10 points
    a. 10 points - every development team member has a successful track record with this type of project and at this scale
    b. 8 points - all but one development team members have a successful track record with this type of project and at this scale; one development team member has relevant experience but at a smaller scale or not of this project type
    c. 5 points - two development team members, while having relevant experience, are new to this type of project or this scale of development
    d. 0 points - the development team does not meet the criteria above
3. Current Capacity of development team - 10 points
    a. 10 points - development team members have exceptional depth of human and financial resources to complete this project
    b. 8 points - development team members have the human and financial resources to complete this project
    c. 5 points - development team has a staffing gap in a significant role and a plan to address that gap, OR there are some concerns about the financial resources of the team to move the development forward
    d. 0 points - the development team does not meet the criteria described above

SUBMISSION INFORMATION

Interested parties are asked to submit a concept development (including preliminary drawings) and a brief description of the project, no longer than two pages, to include the number and type of units, occupants (owners/renters) to be served, special features, the impact on the neighborhood and other ways the proposal meets the primary goals of the City. A general project budget with projected funding sources, development timeline, and development team qualifications and financial capabilities is also required. This RFP does not require detailed architectural drawings or development pro formas.

Photographs and maps of the site and area are required.

a) **Developer:** Name, address, telephone, email, fax number of the proposed owner/developer and the name(s) of an alternative contact person(s).

b) **Proposal:** Each proposal submitted must specifically outline the proposed use of the property and any proposed rezoning requests.

c) **Financial Feasibility:** Provide a business plan, which shall include prospective and committed sources of funding, development and operating budgets; a letter from a lending institution indicating the applicant's ability to finance the projected costs; and provide examples of prior projects that indicate the proven ability to develop a project of similar type and scale from a fiscal perspective.

d) **Timetable:** Provide an overview of how the proposal will be implemented. Include approximate schedule for completion of each element, closing, construction start-up, substantial completion, final completion, and occupancy. Include applications for public or private financing.

e) **Developer Capacity:** Identify the qualifications and experience of the development team for the project including a list of previously completed projects similar to the proposed project. This team may include key staff of the developer, architect, general contractor and future property management. Also, discuss the ability to complete the project including the qualifications of the development team, management plan, experience, capacity, project readiness to proceed, and timeframe for completion.

f) **Occupancy and Management Plan:** Present a plan detailing the ownership structure (condominium, cooperative, etc.), resale restrictions and resale process, to ensure mixed income and long-term affordability.

g) **Purchase Price:** Proposed purchase price for the property.

h) **Copies:** Seven (7) copies, with the original so marked, and one (1) digital copy of each proposal shall be submitted.

V. SALE INFORMATION

After proposals are opened, city staff will make a recommendation to the City Council's Economic Development Committee (EDC) and the Housing Committee (HC). The EDC and HC will make a recommendation to the City Council.

VI. OTHER INFORMATION

Confidentiality: Proposals received by the City shall become a matter of public record, subjectto public inspection, except to the extent, which an applicant designates in writing, proprietary data to be confidential and submits that data under separate cover, such information, may, to the extent permitted by law, be held from public inspection, as provided in applicable Maine law, including, without limitation, 5 MRS Sections 13119-A and 13119-B.

VII. LEGAL REQUIREMENTS

The contract for the disposition of the property will be executed only after review and final approval by the City Council.

VIII. RESERVATION of RIGHTS

The City of Portland reserves the right, at its sole discretion, to award as well as reject any and all proposals for the city-owned property, based on the quality and merits of the proposals received, or when it is determined to be in the public interest to do so. Furthermore, the City may extend deadlines and timeframes, as needed.

The City reserves the right to substantiate any proposer's qualifications, capability to perform, availability, past performance records, and to verify that the proposer is current in its financial obligations to the City.

The City of Portland, Maine, reserves the right to waive any informalities in proposals, to accept any proposal or portion thereof, and, to reject any and all proposals, as well as negotiate with the successful proposer(s) should it be in the best in the best interest of the City to do so for a final purchase and sale agreement and ultimate sale of the property.

Pursuant to City procurement policy and ordinance, the City is unable to contract with businesses or individuals who are delinquent in their financial obligations to the City. These obligations may include but are not limited to real estate and personal property taxes and sewer user fees.

Proposers who are delinquent in their financial obligations to the City must do one of the following: bring the obligation current, negotiate a payment plan with the City's Treasury office, or agree to an offset, which shall be established by the contract, which shall be issued to the successful proposer

April 10, 2020

Matthew F. Fitzgerald
Purchasing Manager

Attachments:
A. Proposal Signature
B. Portland Assessor's Record
C Site Map
D Phase II ESA available online

PROPOSAL
NOTE: THIS PAGE IS TO BE COMPLETED AND RETURNED

The UNDERSIGNED hereby declares that he/she or they are the only person(s), firm or corporation interested in this proposal as principal, which it is made without any connection with any other person(s), firm or corporation submitting a proposal for the same.

The UNDERSIGNED hereby declares that they have read and understand all conditions as outlined in the Request for Proposals, and that the proposal is made in accordance with same.

The UNDERSIGNED hereby declares that any person(s) employed by the City of Portland, Maine, who has direct or indirect personal or financial interest in this proposal or in any portion of the profits which may be derived therefrom has been identified and the interest disclosed by separate attachment. (Please include in your disclosure any interest which you know of. An example of a direct interest would be a City employee who would be paid to perform services under this proposal. An example of an indirect interest would be a City employee who is related to any officers, employees, principal or shareholders of your firm or to you. If in doubt as to status or interest, please disclose to the extent known).

The proposer acknowledges the receipt of Addenda numbered _____
If Applicable

COMPANY NAME: _____
(Individual, Partnership, Corporation, Joint Venture)

AUTHORIZED SIGNATURE: _____ DATE: _____
(Officer, Authorized Individual or Owner)

PRINT NAME & TITLE: _____

ADDRESS: _____

TELEPHONE: _____ E-MAIL: _____

FEDERAL TAX ID #: _____ DUNS #: _____

STATE OF INCORPORATION _____
(If incorporated in another State, businesses must be authorized to do business in the State of Maine.)

In your organizations preceding completed fiscal year, did the organization receive:
(1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; AND
(2) $25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements? ☐ Yes ☐ No

Does the public have access to information about the compensation of the executives in the organization through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (18 U.S.C. 78m(a), 78o(d) or section 6104 of the Internal Revenue Code of 1986? ☐ Yes ☐ No

NOTE: All bids must bear the handwritten signature of a duly authorized member or employee of the organization making the bid. **This sheet must be signed and returned with the application package**.

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL	078 C002001
Land Use Type Verify legal use with Inspections Division	GOVERNMENTAL
Property Location	43 DOUGLASS ST
Owner Information	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101
Book and Page	
Legal Description	78-C-2 DOUGLASS ST 43-53 REAR PROPOSED ST 17340SF
Rental Registration	No
Acres	0.3981

Current Assessed Valuation:

TAX ACCT NO.	10005	**OWNER OF RECORD AS OF APRIL 2019**
LAND VALUE	$49,000.00	CITY OF PORTLAND
BUILDING VALUE	$0.00	389 CONGRESS ST
MUNICIPAL TYPE	($49,000.00)	PORTLAND ME 04101
NET TAXABLE - REAL ESTATE	$0.00	
TAX AMOUNT	$0.00	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or e-mailed.

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL	078 B007001
Land Use Type Verify legal use with Inspections Division	GOVERNMENTAL
Property Location	91 DOUGLASS ST
Owner Information	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101
Book and Page	
Legal Description	78-B-7 DOUGLASS ST 91-105 195648 SF
Rental Registration	No
Acres	4.4915

Current Assessed Valuation:

TAX ACCT NO.	10005	**OWNER OF RECORD AS OF APRIL 2019** CITY OF PORTLAND
LAND VALUE	$489,100.00	
BUILDING VALUE	$0.00	389 CONGRESS ST
MUNICIPAL TYPE	($489,100.00)	PORTLAND ME 04101
NET TAXABLE - REAL ESTATE	$0.00	
TAX AMOUNT	$0.00	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or e-mailed.

ArcGIS Web Map

Estimated Site Area
Preliminary Survey Work Underway

Attachment C

3/10/2020, 12:45:58 PM

Override 1

1:1,685

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

City of Portland, DPS

Douglass Commons, LLC
c/o The Szanton Company
482 Congress St, Suite 203
Portland, ME 04101

May 5, 2021

Planning and Urban Development Department
Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

Subject: Zoning Map Amendment Application – 91 and 41 Douglas Street

Dear Planning and Urban Development Department,

The Douglass Commons development team is excited to submit this application for zoning amendments to facilitate the development of 91 and 41 Douglass Street into a new, family-oriented neighborhood providing both affordable home ownership and rental home opportunities.

We plan to create a community of 108 households of all ages, backgrounds, and incomes living a stone's throw from the Portland peninsula, yet surrounded by 14 acres of recreational grounds. Our neighborhood aims to provide a balance of green space, transit-orientation, walkability, community, privacy, and affordability. By constructing 108 homes targeted at middle-income households, we will meet our commitment to the Portland City Council to increase the City's supply of housing for the "missing middle" on the site of the former West School.

Our plan calls for the construction of a 56-unit apartment building with a mix of one-, two-, and three-bedroom units on the east side of the site. On the west and north sides of the site will be a series of two- and three-story buildings with co-op homes of various sizes. A woonerf will be constructed in the middle of the site.

Based on preliminary conversations with the Planning and Urban Development Department staff, we understand that this 3.35-acre site is well-suited for the R-5a PRUD designation. We are requesting support for a map amendment from site's current designation of R-5 to a new designation of R-5a.

Our proposed development is supported by the policy goals of the City of Portland, regional agencies, and the Libbytown Neighborhood Association. Our requested changes will allow for hundreds of individuals to live adjacent to the Douglass Street soccer fields, baseball fields, softball fields, skate park, Kiwanis Pool, and Libbytown Community Garden.

Enclosed are the following supporting documents:

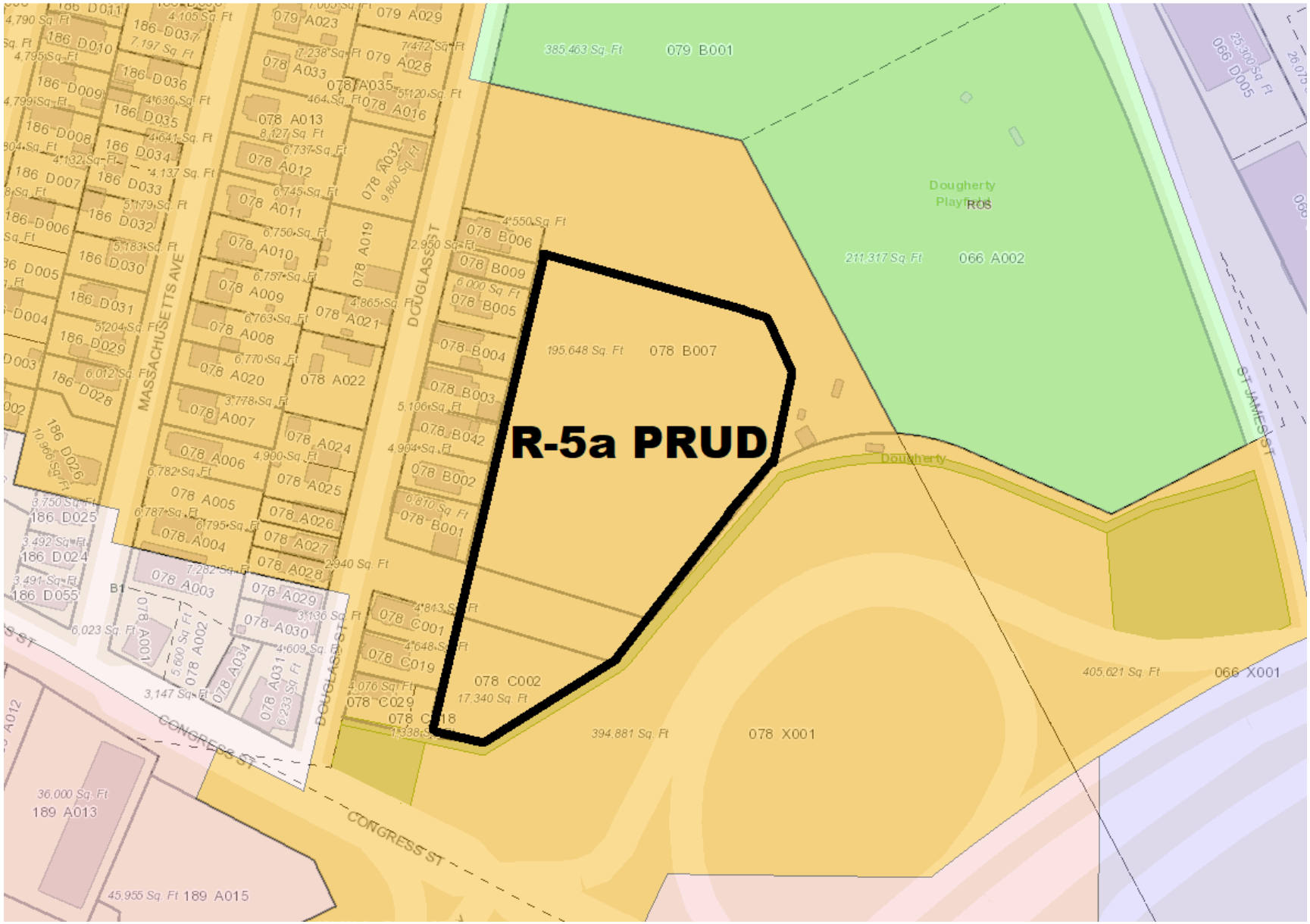
A. Comprehensive Plan Policy Alignment Summary
B. Map Amendment Application Checklist
C. Right, Title, and Interest (Purchase and Sale Agreement with City of Portland)
D. Vicinity Map
E. Proposed Zoning Map
F. Schematic Site Plan

Sincerely,

The Douglass Commons Development Team

CITY OF PORTLAND
Planning & Urban Development Department

MAP AMENDMENT SUBMISSION CHECKLIST * Please submit each document and drawing as a separate PDF file * Please submit all drawings in a 24 x 36 sheet size * Please confirm each item by electronically checking the boxes to the left for each document/drawing	
GENERAL APPLICATION DOCUMENTS	
☑	**Project Description** • Cover Letter with detailed project description
☑	**Consistency with Comprehensive Plan** • Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☑	**Completed Checklist – Map Amendment Application (this document)**
☑	**Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
PLANS	
☑	**Vicinity Map**
☑	**Proposed Map Amendment** (please use the Portland zoning map as a reference)
☑	**Site Plan (if applicable)** (Schematic only) Provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries.


R-5a PRUD
079 B001
385,463 Sq. Ft
Dougherty Playfield
ROS
211,317 Sq. Ft
066 A002
066 D005
25,300 Sq. Ft
195,648 Sq. Ft
078 B007
078 B006
078 B009
078 B005
078 B004
078 B003
078 B042
078 B002
078 B001
078 C001
078 C019
078 C002
17,340 Sq. Ft
078 C029
078 C018
078 X001
394,881 Sq. Ft
405,621 Sq. Ft
066 X001
Dougherty
ST JAMES ST
DOUGLASS ST
MASSACHUSETTS AVE
CONGRESS ST
079 A023
079 A029
079 A028
078 A033
078 A035
078 A016
078 A013
078 A012
078 A011
078 A010
078 A009
078 A008
078 A020
078 A007
078 A006
078 A005
078 A004
078 A003
078 A001
078 A002
078 A034
078 A031
078 A030
078 A029
078 A032
078 A019
078 A021
078 A022
078 A024
078 A025
078 A026
078 A027
078 A028
186 D011
186 D037
186 D010
186 D036
186 D009
186 D035
186 D008
186 D034
186 D007
186 D033
186 D006
186 D032
186 D005
186 D030
186 D004
186 D031
186 D029
186 D028
186 D026
186 D025
186 D024
186 D055
189 A013
189 A015
36,000 Sq. Ft
45,955 Sq. Ft

Douglass Commons - Consistency with Policy Alignment Summary

The requested zoning amendments are well-aligned with stated policy goals at a neighborhood, City, Regional, and State level. A common thread is increasing livability, reducing our region's impact on global climate change, and providing equity and opportunity for all types of households to access safe, affordable homes and affordable economic opportunities.

Alignment with City of Portland's Plan 2030 Concepts

One Portland: Provide access to homes, services, and community connection for all Portland residents by proximity, universal design, and affordability.

A principle of Future Land Use as outlined in Portland's Plan 2030 is One Portland, which stresses the importance of providing development spread throughout the City and providing equitable access to homes, services, and community connection for all Portland residents by proximity, universal design, and affordability. The proposed development supports all the goals of the One Portland vision by creating a more equitable and diverse mix of homes than the single-family style predominantly found on the streets surrounding the Douglass Street recreational complex. Our proposal allows for a broad range of households to have equitable access to Douglass Street's recreation opportunities.

Connect the Chain: Support Transit-Oriented Neighborhoods

Another principle for Future Land Use decisions is Connect the Chain, which focuses on supporting transit-oriented neighborhoods. The proposed map amendment will support a transit-oriented development that will strengthen and support broader transit infrastructure improvements, such bus shelters, indoor space for bus drivers and riders to take a break or wait for a bus, better crossings for school children, and reduced wait times. This project will add ridership to the Metro system, particularly its Congress Street line.

Alignment with One Climate Future

Support Public Transit Networks, Transit-Oriented Development, and Land Use for Smaller Carbon Footprint

The proposed development directly supports the goals of One Climate Future adopted by the Cities of Portland and South Portland, specifically those related to Transportation and Land Use and Climate Resilience. Significant relevant strategies include: TLU 1.1 Public Transit Networks, TLU 1.2 Inclusive Transit-Oriented Development, and TLU 1.7 Land Use for a Smaller Carbon Footprint. The transit-oriented development is located along several bus routes connecting to our site to downtown Portland, the Maine Mall, the Jetport, and Westbrook. Creating a strong node at the end of line opens up opportunities for flexible transit usage, supports expansion of existing infrastructure, and improves the inclusiveness and usability of the existing neighborhood. Climate Resilience strategies met by the proposed development include CR 2.1: Housing Affordability and Resilience and CR 2.5 Neighborhood Resources.

The proposed amendment supports the goals of One Climate Future by creating a residential center along Douglass Street integrated with recreational space and the city's existing transportation infrastructure.

Douglass Commons will result in fewer vehicle miles traveled by single-occupancy vehicles, while providing improved transit infrastructure, sidewalks, and neighborhood connectivity. A cohesive neighborhood center will also build stronger community connections, civic engagement, and disaster resiliency.

Alignment with Maine 2021 Economic Recovery Committee Report

The report calls for the development of "Robust Housing Policies and programs that enable Maine people to live and raise their families near their work. Create and preserve more affordable, efficient, and high-density housing options across the state through bonding, zoning, and land regulation…. Access to stable, affordable, and energy efficient housing is critical to attracting and keeping talent in Maine."

The proposed development expands housing options for middle income households, by providing s strong community design and limited equity cooperative ownership.

The report also seeks action to "Address Structural Inequities: Make Maine a diverse, equitable, and inclusive state where all Mainers can reach their full potential."

The proposed mixed income and multigenerational limited equity cooperative model is highly inclusive and facilitates people of different incomes and backgrounds to connect and build community relationships over time.

Alignment with Neighborhood Desires

We have hosted several meetings with the Libbytown Neighborhood Association and engaged in dozens of one-on-one conversations with members of the neighborhood. The Libbytown Neighborhood association has thrown their support behind our proposal writing the following in a June 2020 letter to the Portland City Council: "Overall, we highly recommend this proposal for its commitment to neighborhood design improvements and amenities."

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") is made this 21st day of May, 2021 (the "Effective Date") by and between the CITY OF PORTLAND, a body politic and corporate located in Cumberland County, Maine, (hereinafter referred to as "Seller" or "City"), and Douglass Commons, LLC, a Maine limited liability company having a mailing address as provided below (hereinafter referred to as "Buyer").

RECITALS

WHEREAS, the CITY is the owner of approximately 3.40 acres of land at or near 43 & 91 Douglass Street, Portland, Maine (the "Premises") and did advertise RFP #20067 dated April 10, 2020, entitled Request for Proposals for Disposition and Development of City-Owned Property Located at 43 and 91 Douglass Street, a copy of which is attached hereto as Exhibit A and incorporated herein (the "Request for Proposals") (the Premises is identified in the City's tax records as CBL 078 C002 and a portion of 078 B007 together with the 60 ft. wide proposed street situated between the two parcels, as is generally depicted on the Boundary Survey dated March 1, 2021 prepared by Owen Haskell, Inc. for The Szanton Company, a copy of which is attached as Exhibit B); and

WHEREAS, Buyer submitted a proposal dated June 15, 2020 in response to the Request for Proposals, a copy of which is attached hereto as Exhibit C and incorporated herein (the "Proposal"); and

WHEREAS, Buyer desires to purchase and develop the Premises, and the City desires to convey the Premises to Buyer, subject to the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

1. **SALE.** City agrees to sell the Premises to Buyer, and Buyer agrees to purchase the Premises in accordance with the terms and conditions set forth in this Agreement. This Agreement is for the sale of land only.

2. **CONSIDERATION**. The purchase price for the Premises shall be Four Hundred Seventy-Five Thousand Dollars ($475,000.00) (the "Purchase Price"), subject to the following cost adjustments and conditions:

    a. Buyer shall deliver to the City the sum of Ten Thousand Dollars ($10,000.00) (the "Deposit") within 3 business days after the full execution of this Agreement, which the City shall hold in a non-interest bearing account. The Deposit shall be governed by the terms and conditions of this Agreement and shall be fully refundable until the end of the Due Diligence Period as that term is defined below.

    b. The Buyer shall pay the remainder of the Purchase Price to the City by wire transfer (or as otherwise reasonably requested by the City) at closing.

3. TITLE AND DUE DILIGENCE.

a. Due Diligence Period. Buyer will have from the Effective Date until 4:00 PM Eastern Time on the day that is eighteen (18) months after the Effective Date (the "Due Diligence Period") to complete any surveys, environmental review, inspections, and title examinations, and to obtain any zone change, site plan approval, and any other permits and regulatory approvals required for the Project. Buyer may, in its sole discretion, notify the City in writing that the Buyer elects to terminate the Due Diligence Period sooner and proceed to closing. Within ten days of the Effective Date, the City shall provide copies of, or reasonable access to, all known, non-confidential City files regarding the Premises, including without limitation title files.

b. Property Description. The legal description of the Premises contained in the deed will be a survey description based upon a survey plan that will more specifically describe the Premises. The parties acknowledge and agree that the survey attached as Exhibit B is a preliminary draft prepared by Buyer and is subject to change after review, amendment, and approval by both parties. The City will notify Buyer of any objections to the survey within 30 days after the Effective Date. Within 10 days after receipt of any such objection, the Buyer will either provide the City with a revised survey addressing City's objections to City's satisfaction, or notify the City that Buyer will not change the survey, in which case the City, will have the right to terminate this Agreement, return the Deposit to Buyer, and neither party shall have any further obligation to the other. Upon City's acceptance of the survey, Buyer will provide the City with a draft legal description for the Premises, which shall be based on the survey and be subject to the City's review and approval. The survey and description of the Premises will be prepared by the Buyer at its sole expense. The parties will work together in good faith to complete their review and approval of the survey and legal description on or before the day that is 90 days after the Effective Date.

c. Rezoning Contingency. Buyer proposes to obtain the Portland City Council's approval to rezone the Premises (the "Rezoning Approval") to increase residential density for its development of the Premises as described in the Proposal (the "Project"). The Buyer will be responsible for obtaining, at its sole expense, the Rezoning Approval and any other regulatory approvals required for the Project prior to Closing. Buyer may terminate this Agreement and receive a full refund of the Deposit if the Rezoning Approval is not received.

d. Financing Contingency. The Buyer's obligation to close is contingent on obtaining construction and permanent financing for the Project that the Buyer, in its discretion, determines is sufficient to put the Project on a sound financial footing. That financing is anticipated to include, but not be limited to, the following: (i) for the residential rental portion of the project an allocation of Federal low-income housing tax credits ("LIHTCs"), other

financing provided by Maine State Housing Authority ("MaineHousing") and affordable housing tax increment financing from the City including a Credit Enhancement Agreement and (ii) for the cooperative housing portion of the project permanent financing under the U.S. Department of Housing and Urban Development section 213 program and affordable housing tax increment financing from the City including a Credit Enhancement Agreement. Buyer may terminate this Agreement and receive a full refund of the Deposit if the financing contingency described above is not met during the Due Diligence Period.

e. Title and Survey Objections. Buyer will have until the end of the Due Diligence Period to deliver to City any written objections to title, environmental, or survey matters (other than the permitted exceptions identified herein) that materially affect insurability or use. Objections not made prior to the end of the Due Diligence Period will be deemed waived; provided, however, that objections pertaining to matters of record environmental, or survey matters first appearing after the end of the Due Diligence Period may be made at any time prior to the closing.

f. Option to Cure. In the event of a title or survey objection, City will have the option, but not the obligation, to cure the objection and will notify Buyer of its election within ten (10) business days after receipt of the objection. In the event that the City elects to cure the objection, it will have sixty (60) days from the date of the notice of election, or such other reasonable time as the parties may agree, to cure the objection. In the event that the City does not elect to cure the objection, or, having elected to cure the objection fails to timely do so to Buyer's reasonable satisfaction, Buyer will have the option to (1) terminate this Agreement and obtain a refund of the Deposit (after which neither party will have any further obligation or liability to the other under this Agreement), (2) waive the objection and close, or (3) undertake the cure of such objection at its own expense (in which case it shall have 60 days to do so).

g. Deed. City shall convey the Premises to Buyer at the closing in fee simple by a municipal quitclaim deed without covenant. Title shall be good and insurable title, free and clear of all encumbrances except (i) easements of record and easements described herein, including, without limitation, an easement to be reserved by, and in form and substance satisfactory to the City and Buyer, the City for access to, and maintenance, repair, and replacement of, the trail located between the Premises and the I-295 corridor; (ii) easements for utilities servicing the property, in form and substance satisfactory to the City and Buyer, including, without limitation, Unitil and sewer (iii) zoning ordinances, and (iv) real estate taxes not yet due and payable. Further, Buyer acknowledges that the deed shall contain a restriction stating that in the event that the Premises or any portion thereof shall be exempt from real and personal property taxes, by transfer, conversion, or otherwise, then the then-owner of the exempt portion shall make annual payments to the City in lieu of taxes in the amount equal to

the amount of property taxes that would have been assessed on the exempt portion of the real and personal property situated on the Premises had such property remained taxable. Such restriction shall also confirm that Buyer and its successors and assigns shall possess and be vested with all rights and privileges as to abatement and appeal of valuations, rates, and the like as are accorded owners of real and personal property in Maine. The City shall provide a draft of the deed, and of any declaration of covenants and restrictions pursuant to section 11, to Buyer one month before the end of the Due Diligence Period, and the City and Buyer shall in good faith endeavor to agree on the form of the deed prior to the end of the Due Diligence Period.

h. Existing Natural Gas Equipment and Easement. The City has informed Buyer that the City believes that all or a portion of the existing natural gas pipe and other equipment depicted on Exhibit B may be actually located outside of the easement provided by the City to Unitil. The City shall use best efforts to work with Unitil to resolve the actual location of the gas pipeline and equipment and amend the easement, if necessary, within three months of the Effective Date. If City is unable to amend the Unitil easement to Buyer's satisfaction, Buyer shall have the right to terminate this Agreement as set forth in subsection (i) below.

i. Buyer's Right to Terminate. The Buyer may terminate this Agreement at any time during the Due Diligence Period if, in the exercise of its sole discretion, it decides to not proceed with the Project by giving written notice of termination to the City in which case the City shall return the Deposit to Buyer and neither party shall have any further obligations to the other.

4. INSPECTIONS.

a. During the Due Diligence Period, Buyer and its employees, consultants, contractors and agents shall have the right, at Buyer's expense, to enter on the Premises at reasonable times in order to (i) inspect the same, (ii) conduct engineering studies, percolation tests, geotechnical exams, environmental assessments, and other such studies, tests, exams, and assessments, and (iii) do such other things as Buyer determines, it is sole discretion, to be required to determine the suitability of the Premises for Buyer's intended use (collectively, the "Inspections"). The City acknowledges that such Inspections may include the digging of test pits, which the City hereby approves.

b. Buyer agrees to defend, indemnify and hold harmless the City against any mechanics liens that may arise from the activities of Buyer and its employees, consultants, contractors and agents on the Premises.

c. Buyer shall exercise the access and inspection rights granted hereunder at its sole risk and expense, and Buyer hereby releases the City from, and

agrees to indemnify, defend, and hold the City harmless against, any and all losses, costs, claims, expenses and liabilities (including without limitation reasonable attorney fees and costs) (collectively, "Damages") suffered by the City on account of any injury to person or damage to property arising out of the exercise by Buyer of its rights hereunder, except to the extent that such Damages result from the act or omission of the City.

d. Buyer shall cause any contractors, consultants or any other party conducting the Inspections to procure automobile insurance, if applicable, and commercial general liability insurance coverage in amounts of not less than Four Hundred Thousand Dollars ($400,000.00) per occurrence for bodily injury, death and property damage, listing the City as an additional insured thereon, and also Workers' Compensation Insurance coverage to the extent required by law; the forms of all such insurance to be subject to City's Corporation Counsel's reasonable satisfaction.

e. In the event that Buyer does not purchase the Premises, Buyer agrees to either return the Premises as nearly as possible to its original condition after conducting the Inspections; provided, however, the City hereby acknowledges and agrees Buyer shall have no obligation to clean-up, remove or take any other action with respect to any disturbance of any pre-existing environmental contamination on the Premises caused by such inspections, studies, tests, exams, and assessments, and that Buyer shall have no obligation to clean-up, remove or take any other action with respect to any pre-existing environmental contamination disturbed thereby.

f. The parties hereto acknowledge and agree that it is a condition to Buyer's obligations under this Agreement that the results of the Inspections be acceptable to Buyer in its sole discretion. If the results of such due diligence are not acceptable to Buyer in its sole discretion, and if Buyer exercises its right to terminate this Agreement, and neither party shall have any further obligations or liabilities under this Agreement except as expressly set forth in this Agreement.

5. **REAL ESTATE TAXES, PRORATIONS AND TRANSFER TAX.** Buyer shall be liable for all real estate taxes beginning as of the start of fiscal year following the closing and continuing thereafter. Because the Property is currently owned by the City of Portland, which is exempt from real estate taxes, no taxes were assessed or will be due for any portion of the tax year during which the closing occurs, and no taxes will be prorated at the closing. Any utilities for the Property shall be prorated as of the closing. The Maine real estate transfer tax shall be paid for by Buyer in accordance with 36 M.R.S.A. § 4641-A. City is exempt from paying the transfer tax pursuant to 36 M.R.S.A. § 4641-C. The recording fee for the deed of conveyance and any expenses relating to Buyer's financing or closing shall be paid for by Buyer.

6. **DEFAULT AND REMEDIES**. Prior to Closing, in the event that Buyer defaults hereunder for a reason other than the default of the City, the City may terminate this Agreement and retain the Deposit, and neither party shall have any further obligation

to the other. In the event that Buyer defaults on any matters addressed in this Agreement that survive Closing, Seller may pursue all available legal and equitable remedies. In the event City defaults under this Agreement, and if Buyer is not then in default hereunder, Buyer shall have the right to pursue specific performance or terminate this Agreement and elect in substitution therefor, as its sole remedy, the right to a return of the Deposit.

7. **RISK OF LOSS.** The risk of loss or damage to the Premises by fire, eminent domain, condemnation, or otherwise, until transfer of title hereunder, is assumed by the City. The Premises is to be delivered in substantially the same condition as of the Effective Date unless otherwise stated. In the event City is not able to deliver the Premises as stated, Buyer may terminate this Agreement, obtain a return of the Deposit, and neither party shall have any further obligations or liabilities under this Agreement except as expressly set forth in this Agreement.

8. **PROPERTY SOLD "AS IS, WHERE IS**." Buyer acknowledges that Buyer has had an opportunity to inspect the Premises, and to hire professionals to do so, and that Premises will be sold "as is, where is" and "with all faults." City, and its agents, make no representations or warranties with respect to the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of the Premises, or as to the fitness of the Premises for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the Premises. Acceptance by Buyer of the Deed at closing and payment of the purchase price shall be deemed to be full performance and discharge by the City of every agreement and obligation contained herein.

9. **ENVIRONMENTAL INDEMNIFICATION**. Buyer covenants and agrees to indemnify, defend, and hold the City harmless from and against any and all claims, damages, losses, liabilities, obligations, settlement payments, penalties, assessments, citations, directives, claims, litigation, demands, defenses, judgments, costs, or expenses of any kind, including, without limitation, reasonable attorneys', consultants', and experts' fees incurred in investigating, defending, settling, or prosecuting any claim, litigation or proceeding, that may at any time be imposed upon, incurred by or asserted or awarded against Buyer or the City and relating directly or indirectly to the violation of or compliance with any federal, state, or local environmental laws, rules, or regulations governing the release, handling or storage of hazardous wastes or hazardous materials and affecting all or any portion of the Premises, except to the extent that such a claim results directly from the City's release, handling or storage of hazardous wastes or hazardous materials on the Premises. This duty to indemnify, defend, and hold harmless shall be included in a covenant in the deed and shall run with the land conveyed and be binding upon Buyer's successors, assigns, and transferees.

10. **CLOSING**. Time is of the essence in the performance of this agreement. The closing shall be held at the offices of Buyer's counsel at a date and time specified by

two weeks' written notice from Buyer to the City on or before the day that is twenty (20) months after the Effective Date (the "Closing Date"). At the Closing:

a. The City shall execute, acknowledge and deliver to Buyer a municipal quitclaim deed conveying to Buyer good and insurable title to the Premises, free and clear of all encumbrances except as otherwise set forth herein.

b. Buyer shall deliver the Purchase Price to the City.

c. Each party shall deliver to the other such other documents, certificates and the like as may be required herein or as may be necessary to carry out the obligations under this Agreement.

d. Buyer shall deliver evidence, reasonably satisfactory to City's Corporation Counsel, that the entity receiving title to the Premises is in good standing under Maine law, and that the individuals acting at Closing and executing documents on behalf of Buyer are authorized to do so.

11. <u>BUYER'S POST CLOSING OBLIGATIONS; RIGHTS OF CITY TO REPURCHASE PROPERTY</u>. As set forth in the Proposal, the Project includes a rental housing project and a limited equity cooperative housing project (hereinafter referred to as the "Rental Housing Project" and the "Cooperative Housing Project," respectively). Within thirty-two (32) months of the Effective Date, Buyer shall commence construction of both the Rental Housing Project and the Cooperative Housing Project.

a. **Rental Housing Project.**
   i. The Rental Housing Project will consist of an apartment building including no less than 56 units, with a mixture of one-, two- and three-bedroom units. In no event shall the Rental Housing Project include fewer than 17 two-bedroom units and 10 three-bedroom units.
   ii. For a period of 99 years after the Rental Housing Project has been completed, at least 40 units in the Rental Housing Project shall be affordable to households earning less than or equal to 60% of the area median income (AMI), adjusted for family size, based on figures published annually by HUD for the Portland Metropolitan Statistical Area. If at a time in the future, HUD no longer provides these annual figures, the City will identify another similar method of determining income guidelines for affordability. For purposes of this Agreement, "affordable" means that the percentage of income a household is charged in rent and other housing expenses including utilities, shall not exceed 30% of the household's gross monthly income, except as provided below if the Project is financed with the LIHTC program. Minimum household size allowed per unit and the formula for calculating maximum allowable monthly rent is detailed on Exhibit D, which is attached hereto and made a part hereof. However, if the Rental Housing Project is financed under the Federal Low Income Housing Tax Credit (LIHTC) Program, maximum allowable rent shall

be the maximum allowable rent under the Federal LIHTC Program during the applicable time period for that Program. Upon expiration of any affordability restrictions recorded in the Cumberland County Registry of Deeds under the Federal LIHTC Program, the provisions of Exhibit D shall apply to the Rental Housing Project for the remainder of the 99-year period.

b. **Cooperative Housing Project.**

i. The Cooperative Housing Project will include at least 52 units, with a mixture of one-, two-, and three-bedroom units owned by a Limited Equity Cooperative Corporation (the "Co-op") and leased individually to the resident shareholders of the Co-op (the holding of a Co-op share and lease agreement together constituting a resident's "cooperative interest"). In no event shall the Cooperative Housing Project include fewer than 12 two-bedroom units and 22 three-bedroom units.

ii. Upon the issuance of a certificate of occupancy for all or a portion of the Cooperative Housing Project, or at such earlier or later time as the Buyer, in its discretion, may determine, the Buyer shall convey the Cooperative Housing Project to the Co-op organized in accordance with the Maine Cooperative Affordable Housing Ownership Act, 13 M.R.S.A. §1741-1762, as may be amended or any successor provisions thereto (the "Act"). References below to particular provisions of the Act include any successor provisions to the provisions referenced.

iii. Rent Restrictions. For a period of 99 years after the Cooperative Housing Project has been completed, all residential units in the Cooperative Housing Project shall be affordable to households earning less than or equal to 100% of the area median income (AMI), adjusted for family size, based on figures published annually by HUD for the Portland Metropolitan Statistical Area. If, at a time in the future, HUD no longer provides these annual figures, the City will identify another similar method of determining income guidelines for affordability. For purposes of this Agreement, "affordable" means that the percentage of income a household is charged in connection with (i) its cooperative interest and other housing expenses, including utilities, shall not exceed 30% of the household's gross monthly income or (ii) its rent and other housing expenses, including utilities, shall not exceed 30% of the household's gross income. Minimum household size allowed per unit and the formula for calculating maximum allowable purchase price and monthly rent is detailed on Exhibit D, which is attached hereto and made a part hereof.

iv. Income Restrictions. Except as provided below regarding the initial sale of cooperative interests, a household may only purchase a cooperative interest in a unit or if its income is not more than 100% of the AMI, adjusted for family size, as published by the U.S. Department of Housing and Urban Development ("HUD") at the time of purchase. This income test will be used only at the time of the household's purchase. No income test shall apply for subsequent

transfers to family members (as reasonably defined by the Co-Op Entity) or to a cooperative membership interest which is inherited or transferred upon death to a beneficiary. At the time of the initial sale of cooperative membership interests in the Co-op, up to 20% of the cooperative membership interest may be sold to households earning up to 120% AMI. All subsequent sales must be to households earning no more than 100% of AMI.

v. The articles of organization for the Co-op shall provide that in the event the Co-op shall be dissolved, its assets will be distributed in accordance with §1754 (6) of the Act. In such dissolution, the Co-Op's assets will be used first to pay all debts and other obligations of the Co-op, then to make any distributions to members required under the Co-Op's limited equity organizational documents, then any remaining balance shall be paid to the City or, at the Buyer's option with the consent of the City not to be unreasonably withheld, to another organization permitted under §1754 (6) of the Act.

c. **Option to Repurchase All or a Portion of the Premises**.

(i) If Buyer, its successors, assigns, or transferees commences no construction of any portion of the Project to be located on the Premises within 32 months of the Effective Date, the City shall have the right, but not the obligation, to repurchase the Premises and all improvements thereon (collectively, the "Property") at the Purchase Price (the "Property Repurchase Price") plus all commercially reasonable and documented, design, development, construction, and regulatory approval expenses ("Approved Expenses") incurred by Buyer, or successors, to the date on which the City notifies Buyer, its successors or assigns, of its intent to exercise its option to repurchase the Property. The parties acknowledge and agree that the Approved Expenses are intended to include only costs incurred directly in connection with the development of the Property for documents, agreements, designs, plats, plans, approvals, and construction, the rights to which may be assigned or transferred to the City. In no event shall the Approved Expenses include salaries, developer fees, or the like paid by Buyer, its successors or assigns to their members, shareholders, partners, employees, or agents.

(ii) If Buyer conveys a portion of the Property (the "Co-Op Site"), which conveyance may be by creating and conveying a land condominium unit, to a separate entity (the "Co-Op Entity") for purposes of that entity developing the Cooperative Housing Project, and the Co-Op Entity fails to commence construction of the Cooperative Housing Project within 32 months of the date of this agreement or fails to complete construction of the Cooperative Housing Project within fifty (50) months of the date of this agreement, the City shall have the right, but not the obligation, to purchase the Co-Op Site and all improvements thereon for a price equal to One Hundred Thousand Dollars ($100,000) ("Co-Op Repurchase Price") plus Approved Expenses incurred by Buyer, or successors, for purposes of developing the Co-Op Site to the date on which the City notifies Buyer, its

successors or assigns, of its intent to exercise its option to repurchase. Any conveyance of the Co-Op Site to the City will (i) be subject to any and all rights of the Rental Housing Entity (defined below) or pursuant to any condominium documents that affect or burden the Co-Op Site and (ii) include any and all rights of the Co-Op Entity over the Rental Housing Site (as defined below) or pursuant to any condominium documents.

(iii) If Buyer conveys a portion of the Property (the "Rental Housing Site"), which conveyance may be by creating and conveying a land condominium unit, to a separate entity (the "the Rental Housing Entity") for purposes of that entity developing the Rental Housing Project, and the Rental Housing Entity fails to commence construction of the Rental Housing Project within 32 months of the date of this agreement or fails to complete construction of the Rental Housing Project within fifty (50) months of the date of this agreement, the City shall have the right, but not the obligation, to purchase the Rental Housing Site and all improvements thereon for a price equal to $375,000 (the "Rental Housing Repurchase Price") plus Approved Expenses incurred by Buyer, or successors, for purposes of developing the Rental Housing Site to that the date on which the Property is conveyed to the City. Any conveyance of the Rental Housing Site to the City will (i) be subject to any and all rights of the Co-Op Housing Entity (defined below) or pursuant to any condominium documents that affect or burden the Rental Housing Site and (ii) include any and all rights of the Rental Housing Entity over the Co-Op Site (as defined below) or pursuant to any condominium documents.

(iv) Any conveyance to the City pursuant to the City's option to purchase shall be subject to all mortgages of record placed by Buyer, its successors and assigns, but only if such mortgages secure financing of the development of the Premises (the "Permitted Mortgages"). In the event that there are any Permitted Mortgages on the Property, or portion thereof, at the time City exercises its right to repurchase, the parties agree that the City shall have the option to pay the applicable Repurchase Price and Approved Expenses to the first priority mortgagee. City and its successors and assigns agrees to enter into such agreements on reasonable commercial terms as may be requested by the lenders and/or investors of Buyer, its successors and assigns, to provide such lenders or investors notice and cure rights. In furtherance, but not in limitation of the foregoing, as long as MaineHousing holds a Permitted Mortgage on the Premises, no notice given by the City to the Buyer, its successors and assigns under the City's deed shall be valid unless and until a copy of the notice is given to MaineHousing at Maine Housing at Maine State Housing Authority, 26 Edison Drive, Augusta, Maine 04330, Attn: Legal Department. MaineHousing shall have the right, but not the obligation, to cure any default or perform any obligation under the City's deed for thirty (30) days beyond any period during which Buyer, its successors and assigns may cure any default or perform any obligation under the City's deed. If the City exercises any of the above right to purchase, Buyer or its successor

shall convey the Property to the City, free and clear of all encumbrances other than the Permitted Mortgages and any utility easements granted by Buyers its successors and assigns, and assign to the City all contracts, plans, and other documents related to the design, construction, and regulatory approvals for the Project. The City agrees to make reasonable modifications to the provisions regarding the City's repurchase rights to facilitate mortgage and development financing for the Project. The rights to purchase shall be assignable by the City.

(v) Buyer anticipates that the Co-Op entity will grant a mortgage on the Co-Op Site to a lender or investor to finance the purchase of the Co-Op Site and preconstruction development costs including the Co-Op's $100,000 portion of the acquisition price, Approved Expenses and related customary and commercially reasonable financing costs (such financing is referred to as the "Pre-Development Mortgage Loan"). Buyer, for itself, its successors, and assigns, including the Co-Op Entity, agrees that it will not encumber the Co-Op Site with mortgages other than the mortgage securing Pre-Development Mortgage Loan and that such mortgage shall not exceed in the aggregate the Co-Op Pre-Development Appraised Value (as defined below) at any time prior to the closing of the full construction financing for the Cooperative Housing Project (the "Co-Op Construction Loan Closing"). Prior to the Co-Op Construction Loan Closing, notwithstanding any other provision of this Agreement, the total amount that the City is required to pay to repurchase the Co-Op Site upon exercise of its option as provided above, including Approved Expenses, shall be limited to the then-outstanding balance of the mortgage securing the Pre-Development Mortgage Loan.

The term "Co-Op Pre-Development Appraised Value" means the appraised value of the Co-Op Site as determined by an appraisal, made in accordance with all applicable professional standards, obtained by the lender making the pre-development mortgage loan to the Co-Op entity. The Co-Op entity agrees to provide a copy of that appraisal to the City prior to entering into such mortgage loan.

The provisions of this Section 11(c)(v) shall cease to apply as of the Co-Op Construction Loan Closing.

d. For all purposes of this Section 11, construction will be deemed completed for a portion of the Project upon the issuance of a Certificate of Occupancy by the City for that portion. Upon termination of the City's option with respect to a portion of the Project, the City will, at the request of the Buyer, its successors and assigns execute and record an affidavit indicating that the City's option has terminated with respect to all or a portion of the Project. Notwithstanding anything else to the contrary in this Section 11, in the event that the City fails to give the notice exercising the City's option on or before the date that is 31 months after the Closing Date, then the City's

option shall terminate automatically without the need for further writing or recording.

e. Notwithstanding the above provisions, if after closing, Buyer, or its successors, assigns, or transferees determines that it is not feasible to develop the Property as a rental housing project using Maine State Housing Authority financing or as a cooperative leasing/ownership structure, Buyer may develop the Property using a different financing or leasing/ownership structure so long as the unit mix and affordability criteria provided in this Agreement are satisfied. If the Buyer or its successors does so within the time periods specified, the City shall not have the right to repurchase the Property.

f. The provisions of this Section 11 will survive closing and will be included in greater detail in the City's deed to Buyer or in a declaration of covenants, conditions and restrictions executed before or at the time of Closing, which shall be recorded in the Cumberland County Registry of Deeds.

12. ENTIRE AGREEMENT. This Agreement represents the entire and complete Agreement and understanding between the parties and supersedes any prior agreement or understanding, written or oral, between the parties with respect to the acquisition or exchange of the Property hereunder. This Agreement cannot be amended except by written instrument executed by City and Buyer.

13. NON-WAIVER. No waiver of any breach of any one or more of the conditions of this Agreement by either party shall be deemed to imply or constitute a waiver of any succeeding or other breach hereunder.

14. HEADINGS AND CAPTIONS. The headings and captions appearing herein are for the convenience of reference only and shall not in any way affect the substantive provisions hereof.

15. BINDING EFFECT. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, administrators, successors and assigns.

16. TIME. The City and Buyer each confirm and agree that each of the time periods set forth herein are essential provisions of the terms of this Agreement.

17. GOVERNING LAW. This Agreement shall be construed in all respects in accordance with, and governed by, the laws of the State of Maine. All parties hereto hereby consent to the exclusive jurisdiction of the Superior Court for the County of Cumberland in the State of Maine, for all actions, proceedings and litigation arising from or relating directly or indirectly to this Agreement or any of the obligations hereunder, and any dispute not otherwise resolved as provided herein shall be litigated solely in said Court. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

18. **NOTICE**. All notices, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or on the first business day after the notice is delivered to an overnight delivery service with delivery confirmation, addressed to the recipients at the addresses set forth below. Either party may change addresses for purposes of this paragraph by giving the other party notice of the new address in the manner described herein.

FOR THE CITY:	City of Portland ATTN: City Manager 389 Congress Street Portland, ME 04101
With a copy to:	The Office of the Corporation Counsel at the same address.
FOR BUYER:	Douglass Commons LLC c/o The Szanton Company 482 Congress, Suite 203 Portland, ME 04101
	And to:
	Maine Cooperative Development Partners, LLC c/o Brian Eng 6 City Center, Fl. 3 Portland, ME 04101
With a copy to:	John S. Kaminski Drummond Woodsum 84 Marginal Way, Suite 600 Portland, ME 04101

19. **SIGNATURES; MULTIPLE COUNTERPARTS.** This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement.

20. **BROKERS.** The City and Buyer each represent and warrant that they have not dealt with a real estate broker in connection with this transaction. Buyer agrees to indemnify and hold harmless City from any claims made by any broker should Buyer's representation in this paragraph be false. Subject to the limitations of liability set forth in the Maine Tort Claims Act, City agrees to indemnify and hold harmless Buyer from any claims made by any broker should City's representation in this paragraph be false. The foregoing indemnities shall include all legal fees and costs incurred in defense against any such claim, and shall survive closing.

21. **RECITALS INCORPORATED BY REFERENCE**. The recitals set forth above are incorporated herein by reference and made a part of this Agreement.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed on their behalf by their duly authorized offices or representatives, on the day and year first written above.

WITNESS

CITY OF PORTLAND

Jon P. Jennings
Its City Manager

WITNESS

DOUGLASS COMMONS, LLC

By: _____
Printed Name: Nathan S. Szanton
Its Manager

and

By: _____
Printed Name: Brian Eng
Its Manager

Approved as to Form:

City Corporation Counsel's Office

Approved as to Funds:

Brendan T Connell
City Finance Department

CITY of PORTLAND, MAINE
Request for Proposals for Disposition of City-Owned Property
Located at 43 & 91 Douglass Street
RFP #20067

I. NOTICE AND SPECIFICATIONS

The City of Portland, Maine seeks proposals from qualified developers for the creation of residential housing at 43 & 91 Douglass Street. The site is designated on the City of Portland Tax Assessor's Map as lot CBL 078 C002 & 078 B007.

Sealed proposals for the project, including an original, seven (7) copies, and one (1) digital copy, as specified herein, will be received by the Purchasing Office, Room 103, City Hall, 389 Congress Street, Portland, Maine 04101, until 3:15 p.m., Tuesday, June 16, 2020, at which time they will be publicly opened.

Proposals shall be submitted, and returned in sealed envelopes plainly marked on the outside "Disposition and Development of Property Located at 43 & 91 Douglass Street".

Proposals that are late, unsigned or submitted via fax will not be accepted. Proposals from individuals not registered with the Purchasing Office may be rejected; receipt of this document directly from the City of Portland indicates registration. Should a person receive this Request from a source other than the City, please contact 207-874-8654 to ensure that you are listed as a recipient for this proposal.

All questions must be submitted in writing to the Purchasing Office. These may be mailed, hand delivered, faxed to (207) 874-8652 or e-mailed to mff@portlandmaine.gov and be received no later than five (5) business days prior to the opening date. Questions received after this time will not be addressed. Any interpretation, correction, or change of this document will be made only by written addenda. Changes in any other manner will not be binding on the City and proposers should not rely on. Proposers should not have contact with any City staff with regard to this proposal unless to obtain general public information as specified in the document.

The disposal of this real estate shall be on the basis of a negotiated proposal, with the City of Portland reserving the right to refuse any and all proposals. *All proposers are advised that the property will be sold "as-is" and "where is", in its existing condition, with no warranties either expressed or implied.* The City makes no representations or warranties about of any of the information about the property set forth herein, which is provided to proposers for their convenience only. The successful proposer shall be responsible to inspect the property, or to hire its own professionals to do so. The City, and its agents, make no representations or warranties with respect to the title of the property, the accuracy of any statement as to boundaries or acreage, or as to any other matters contained in any description of the property, or as to the fitness of the property for a particular purpose, or as to development rights, merchantability, habitability, or as to any other matter, including without limitation, land use, zoning and subdivision issues or the environmental, mechanical, or structural condition of the property. The City disclaims any and all responsibility for injury to proposers, their agents or others while examining the property or at any other time. The City will not be responsible for any broker's commission.

Any and all improvements made to said property must be done in accordance with existing City Codes and Ordinances.

II. GENERAL INFORMATION

Summary of Request:

The City of Portland is committed to providing housing opportunities and has set a goal to evaluate the use of City-owned property to construct housing. As one-step in accomplishing this goal, the City of Portland will accept proposals for the development of housing on the lot located at 43 & 91 Douglass Street, which currently is a vacant lot but was the former site of the West School.

This request for proposals results from the December 16, 2019 approval by the Portland City Council (Resolve 10-19/20) on the recommendation of the Housing Committee to market the City-owned vacant property located at 43 and 91 Douglass Street.

The City of Portland uses the RFP process to ensure that public resources are utilized for maximum public benefit while accomplishing specific objectives and providing fair access to all applicants.

Site Information:

a. Location: 43 & 91 Douglass Street, as identified in the City of Portland Assessor's records as lot CBL 078 C002 and 078 B007, in the R-5 zone. The lot includes the former site of the West School. The site for disposition includes a portion of 91 Douglass Street, but not the entire lot (See Attachment 2).

b. Existing Conditions: 43 & 91 Douglass Street is located on two parcels with frontage on Douglass Street in the Libbytown neighborhood. A right-of-way bisects the two parcels. The surrounding context is predominantly residential with the majority of homes in the area being one and multi-family structures. Dougherty Play Field abuts the property to the north.

c. Current use: Vacant lot.

d. General Dimensions: 43 Douglass Street (estimated at .3981 acres), and an estimated 2.85-acre portion of 91 Douglass Street.

e. Current Zoning: R-5. The minimum lot size in the R-5 zone is 6,000 square feet for residential development (single-family and two-family), 9,000 square feet for a multi-plex development (three-family or more), and 2 acres for a planned residential unit development (PRUD). This parcel would allow for residential, multi-family, and PRUD development. The minimum lot area per unit in a PRUD is 3,000 square feet; the maximum units per building is 12 units. At an estimated 141,570 square feet, the maximum number of residential units that could be developed within a PRUD is 47 units. For complete zoning requirements, please refer to Chapter 14, Land

Use, of the City Code.

f. Rezoning: Higher density zoning that furthers exceptional projects and other city goals as outlined in Section III may be considered. It should be noted that changes to zoning require both Planning Board and City Council approval.

g. Condition of the property at the time of sale: This parcel is the location of a former city-dump, and later the West School. A natural gas line and gas company easement are located in the right-of-way and the 43 Douglass Street parcel thus precluding development over these sites. A 40' wide sewer easement is also identified in the unbuildable portion of the site.

h. Environmental Conditions: A Phase II Environmental Site Assessment (ESA) has been completed to evaluate current environmental conditions. Based on findings, special soil disposal restrictions may be required. Participation in the Maine DEP Voluntary Response Action Program (VRAP) should be considered. The Phase II ESA will be available on-line.

i. Proposers are urged to investigate water sources and utility connection requirements with the Department of Public Works.

III. CITY GOALS

The City's primary goals for the use of the property are:

1. Developments shall provide mixed income units. All units must be affordable to households earning 60% to 120% of the area median income (AMI). Currently, 60% AMI for a family of four is $55,800 and 120% AMI for a family of four is $111,600.

   Affordable means that the percentage of income a household is charged in rent and other housing expenses including utilities, or must pay in monthly mortgage payments (including real estate taxes, mortgage insurance, condominium/HOA fees, insurance and utilities), does not exceed 30% of a household's gross income, or other amount established in city regulations that does not vary significantly from this amount.

   Restrictions on the affordability of units must be in place for a minimum of 30 years for homeownership units, and the longest period allowed by law for rental units.

2. Development of mixed income homeownership or rental housing of excellent building and site design. Design principles should promote efficient use of land to create a development that is compatible with the existing pattern, scale, massing, and materials of the surrounding neighborhood. The development's buildings shall be designed to meet the City's Green Building Code.

3. Rezoning may be considered to support increase housing development opportunities or maximize the number of allowable housing units on the property.

4. Developments shall create housing options that are age inclusive.

The general terms for this real estate transaction include:

- Units must be used as the principal residence of the owner/tenant and owner/tenant shall not use the unit for the conduct of business (except for a home occupation allowed under the City of Portland zoning ordinance) or as an investment property. Units shall not be rented for short-term periods of one to thirty days.
- Property Sale Price. The City expects to receive Fair Market Value ("FMV") for the property.
- Alternative Ownership Models. Alternative ownership models that will encourage a mixed income community with long term affordability for the maximum number of units, such as limited equity units, co-housing, cooperative, or a community land trust, may be considered in order to ensure the units affordability over time.
- Proposals must outline how they will maintain affordability.
- Other City Incentives. Other city financial incentives may be considered to support increase housing development opportunities or maximize the number of allowable housing units on the property.

IV. PROPOSED SCORING

An internal staff Committee will review proposals received, and will apply the following selection criteria in reviewing and scoring the applications.

Proposed use to achieve the City of Portland's goals

40 points

1. Market Demand - 20 points
    a. 20 points - all units meet the City's Goals and Terms noted in Section III
    b. 15 points - at least 75% of the units meet the City's Goals and Terms noted in Section III
    c. 10 points - at least 50% of the units meet the City's Goals and Terms noted in Section III
    d. 0 points - project does not does not meet the City's Goals and Terms noted in Section III
2. Economic diversity - 10 points
    a. 10 points - creates housing options which promote economic diversity in the neighborhood in which the development is located
    b. 0 points - does not promote economic diversity
3. Age Inclusive – 10 points
    a. 10 points – creates housing which is age inclusive
    b. 0 points – does not create housing which is age inclusive

Impact on surrounding neighborhood, including design. **25 points**

1. Project Design -15 points
    a. 15 points - the proposal is consistent with design characteristics
    b. 10 points - the proposal is an adequate fit with neighborhood characteristics
    c. 0 points - the design is a significant outlier
2. Amenities and unit design - 10 points
    a. 10 points - amenities & unit design are well thought out and appropriate for residents
    b. 5 points - amenities & unit design are adequate

c. 0 points - amenities and unit design raise significant concerns that resident needs will not be adequately addressed

Applicant's ability to complete project, including financial feasibility, development team experience, capacity, and timeframe for completion. 35 points

1. Readiness to proceed - 15 points
    a. 15 points - all projected sources of funding include letters of commitment or interest are projected at terms and conditions consistent with the City's prior experience with the funder
    b. 10 points - most projected sources of funding include letters of commitment, letters of interest, or, if no letter is included, are projected at terms and conditions consistent with the City's prior experience with this funder
    c. 0 points - one or more sources are projected on terms that are not consistent with the City's prior experience with the funder and are not documented by letter(s) from funder(s)
2. Track record of development team - 10 points
    a. 10 points - every development team member has a successful track record with this type of project and at this scale
    b. 8 points - all but one development team members have a successful track record with this type of project and at this scale; one development team member has relevant experience but at a smaller scale or not of this project type
    c. 5 points - two development team members, while having relevant experience, are new to this type of project or this scale of development
    d. 0 points - the development team does not meet the criteria above
3. Current Capacity of development team - 10 points
    a. 10 points - development team members have exceptional depth of human and financial resources to complete this project
    b. 8 points - development team members have the human and financial resources to complete this project
    c. 5 points - development team has a staffing gap in a significant role and a plan to address that gap, OR there are some concerns about the financial resources of the team to move the development forward
    d. 0 points - the development team does not meet the criteria described above

SUBMISSION INFORMATION

Interested parties are asked to submit a concept development (including preliminary drawings) and a brief description of the project, no longer than two pages, to include the number and type of units, occupants (owners/renters) to be served, special features, the impact on the neighborhood and other ways the proposal meets the primary goals of the City. A general project budget with projected funding sources, development timeline, and development team qualifications and financial capabilities is also required. This RFP does not require detailed architectural drawings or development pro formas.

Photographs and maps of the site and area are required.

a) **Developer:** Name, address, telephone, email, fax number of the proposed owner/developer and the name(s) of an alternative contact person(s).

b) **Proposal:** Each proposal submitted must specifically outline the proposed use of the property and any proposed rezoning requests.

c) **Financial Feasibility:** Provide a business plan, which shall include prospective and committed sources of funding, development and operating budgets; a letter from a lending institution indicating the applicant's ability to finance the projected costs; and provide examples of prior projects that indicate the proven ability to develop a project of similar type and scale from a fiscal perspective.

d) **Timetable:** Provide an overview of how the proposal will be implemented. Include approximate schedule for completion of each element, closing, construction start-up, substantial completion, final completion, and occupancy. Include applications for public or private financing.

e) **Developer Capacity:** Identify the qualifications and experience of the development team for the project including a list of previously completed projects similar to the proposed project. This team may include key staff of the developer, architect, general contractor and future property management. Also, discuss the ability to complete the project including the qualifications of the development team, management plan, experience, capacity, project readiness to proceed, and timeframe for completion.

f) **Occupancy and Management Plan:** Present a plan detailing the ownership structure (condominium, cooperative, etc.), resale restrictions and resale process, to ensure mixed income and long-term affordability.

g) **Purchase Price:** Proposed purchase price for the property.

h) **Copies:** Seven (7) copies, with the original so marked, and one (1) digital copy of each proposal shall be submitted.

V. SALE INFORMATION

After proposals are opened, city staff will make a recommendation to the City Council's Economic Development Committee (EDC) and the Housing Committee (HC). The EDC and HC will make a recommendation to the City Council.

VI. OTHER INFORMATION

Confidentiality: Proposals received by the City shall become a matter of public record, subjectto public inspection, except to the extent, which an applicant designates in writing, proprietary data to be confidential and submits that data under separate cover, such information, may, to the extent permitted by law, be held from public inspection, as provided in applicable Maine law, including, without limitation, 5 MRS Sections 13119-A and 13119-B.

VII. LEGAL REQUIREMENTS

The contract for the disposition of the property will be executed only after review and final approval by the City Council.

VIII. RESERVATION of RIGHTS

The City of Portland reserves the right, at its sole discretion, to award as well as reject any and all proposals for the city-owned property, based on the quality and merits of the proposals received, or when it is determined to be in the public interest to do so. Furthermore, the City may extend deadlines and timeframes, as needed.

The City reserves the right to substantiate any proposer's qualifications, capability to perform, availability, past performance records, and to verify that the proposer is current in its financial obligations to the City.

The City of Portland, Maine, reserves the right to waive any informalities in proposals, to accept any proposal or portion thereof, and, to reject any and all proposals, as well as negotiate with the successful proposer(s) should it be in the best in the best interest of the City to do so for a final purchase and sale agreement and ultimate sale of the property.

Pursuant to City procurement policy and ordinance, the City is unable to contract with businesses or individuals who are delinquent in their financial obligations to the City. These obligations may include but are not limited to real estate and personal property taxes and sewer user fees.

Proposers who are delinquent in their financial obligations to the City must do one of the following: bring the obligation current, negotiate a payment plan with the City's Treasury office, or agree to an offset, which shall be established by the contract, which shall be issued to the successful proposer

April 10, 2020

Matthew F. Fitzgerald
Purchasing Manager

Attachments:
A. Proposal Signature
B. Portland Assessor's Record
C Site Map
D Phase II ESA available online

PROPOSAL
NOTE: THIS PAGE IS TO BE COMPLETED AND RETURNED

The UNDERSIGNED hereby declares that he/she or they are the only person(s), firm or corporation interested in this proposal as principal, which it is made without any connection with any other person(s), firm or corporation submitting a proposal for the same.

The UNDERSIGNED hereby declares that they have read and understand all conditions as outlined in the Request for Proposals, and that the proposal is made in accordance with same.

The UNDERSIGNED hereby declares that any person(s) employed by the City of Portland, Maine, who has direct or indirect personal or financial interest in this proposal or in any portion of the profits which may be derived therefrom has been identified and the interest disclosed by separate attachment. (Please include in your disclosure any interest which you know of. An example of a direct interest would be a City employee who would be paid to perform services under this proposal. An example of an indirect interest would be a City employee who is related to any officers, employees, principal or shareholders of your firm or to you. If in doubt as to status or interest, please disclose to the extent known).

The proposer acknowledges the receipt of Addenda numbered _____
If Applicable

COMPANY NAME: _____
(Individual, Partnership, Corporation, Joint Venture)

AUTHORIZED SIGNATURE: _____ DATE: _____
(Officer, Authorized Individual or Owner)

PRINT NAME & TITLE: _____

ADDRESS: _____

TELEPHONE: _____ E-MAIL: _____

FEDERAL TAX ID #: _____ DUNS #: _____

STATE OF INCORPORATION _____
(If incorporated in another State, businesses must be authorized to do business in the State of Maine.)

In your organizations preceding completed fiscal year, did the organization receive:
(1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; AND
(2) $25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements? ☐ Yes ☐ No

Does the public have access to information about the compensation of the executives in the organization through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (18 U.S.C. 78m(a), 78o(d) or section 6104 of the Internal Revenue Code of 1986? ☐ Yes ☐ No

NOTE: All bids must bear the handwritten signature of a duly authorized member or employee of the organization making the bid. **This sheet must be signed and returned with the application package**.

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL	078 C002001
Land Use Type Verify legal use with Inspections Division	GOVERNMENTAL
Property Location	43 DOUGLASS ST
Owner Information	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101
Book and Page	
Legal Description	78-C-2 DOUGLASS ST 43-53 REAR PROPOSED ST 17340SF
Rental Registration	No
Acres	0.3981

Current Assessed Valuation:

TAX ACCT NO.	10005	**OWNER OF RECORD AS OF APRIL 2019**
LAND VALUE	$49,000.00	CITY OF PORTLAND
BUILDING VALUE	$0.00	389 CONGRESS ST
MUNICIPAL TYPE	($49,000.00)	PORTLAND ME 04101
NET TAXABLE - REAL ESTATE	$0.00	
TAX AMOUNT	$0.00	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or e-mailed.

This page contains a detailed description of the Parcel ID you selected.

New Search!

Current Owner Information:

CBL	078 B007001
Land Use Type Verify legal use with Inspections Division	GOVERNMENTAL
Property Location	91 DOUGLASS ST
Owner Information	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101
Book and Page	
Legal Description	78-B-7 DOUGLASS ST 91-105 195648 SF
Rental Registration	No
Acres	4.4915

Current Assessed Valuation:

TAX ACCT NO.	10005	**OWNER OF RECORD AS OF APRIL 2019** CITY OF PORTLAND
LAND VALUE	$489,100.00	
BUILDING VALUE	$0.00	389 CONGRESS ST
MUNICIPAL TYPE	($489,100.00)	PORTLAND ME 04101
NET TAXABLE - REAL ESTATE	$0.00	
TAX AMOUNT	$0.00	

Any information concerning tax payments should be directed to the Treasury office at 874-8490 or e-mailed.

ArcGIS Web Map

Estimated Site Area
Preliminary Survey Work Underway

3/10/2020, 12:45:58 PM

Override 1

1:1,685

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

City of Portland, DPS

PERRY FIELD

RUSSO FIELD

DUGOUT

UNDERGROUND WATER LINE "SHUT-OFF"

"RUSSO FIELD" SIGN

CONCESSION STAND

SHED

N:300459.57
E:2921184.33

N/F
STATE OF MAINE
"INTERSTATE 295"

ON RAMP

OFF RAMP

PROPOSED STREET AS SHOWN IN CCRD 958/96-97
NOT MENTIONED IN STATUATORY VACATION DEED 13326/19

S13°08'38"W
141.07'

S26°27'03"E
36.83'

PLAYGROUND AREA

SWINGSET AREA

BASKETBALL COURT

WALK

FENCE

UP w/UGE

METAL GUARDRAIL

#147.22

S39°37'38"W
287.39'

6"x6" CONCRETE HIGHWAY MONUMENT w/PLUG
S46°50'26"W
0.38' TO CORNER

GAS WITNESS

NORTHERN UTILITIES, INC.
ANODE BED EASEMENT
33292/266
SEE PLAN REF. 4

#147.21

ELEC. METER

S59°23'19"W
188.51'

#147.2

N/F
STATE OF MAINE
"INTERSTATE 295"

PROPOSED LOT
AREA=
148,228 S.F. ±
3.40 ACRES ±

GRASS

GRAVEL/OVERGROWN

TM 78-B-7
N/F
CITY OF PORTLAND

PROPOSED STREET AS SHOWN ON CITY PLAN 406/63

S76°51'22"E
308.15'

PROPOSED STREET AS SHOWN ON CITY PLAN 406/63
& RIGHT-OF-WAY TO PORTLAND GAS LIGHT CO.
CCRD BK 958/96-97
NOT MENTIONED IN STATUATORY VACATION DEED 13326/19

60'

TM 78-C-2
N/F
CITY OF PORTLAND

GAS WITNESS

2"IPF

6"x6" CONCRETE HIGHWAY MONUMENT w/DRILL HOLE
S21°51'20"W
0.56' TO CORNER

N18°49'47"W
61.13'

DOUGHERTY FIELD
N/F
CITY OF PORTLAND
1667/157-159
1663/425
1659/6
1573/98
1813/154
1815/84

PAVED/GRAVEL

GRASS

GRASS

GRASS

PAVED

PAVED

N:300700.02
E:2920899.97

N:300346.97
E:2920817.53

STOCKADE FENCE

362.54'
N13°08'38"E

CHAIN LINK FENCE

STOCKADE FENCE

FENCE

5/8"CIRF

CHAIN LINK FENCE

2"IPF

N16°57'38"E
87.42'

52.49'
N13°08'38"E

1-1/2"IPF
6"x6" CONCRETE HIGHWAY MONUMENT w/DRILL HOLE

TM 78-C-18

106.50'

N72°29'22"W

S72°29'22"E
100.29'

GARAGE

OHW

SIDEWALK

UNITIL EQUIPMENT

BOLLARDS

HOUSE

2"IPF BENT

60.17'
N13°08'38"E

TM 78-B-6
N/F
PEAR TREE PROPERTY MGT LLC
34055/342

TM 78-B-9
N/F
HILLARY COOKE & ISAAC STROE
31890/320

TM 78-B-5
N/F
DONALD & KATHLEEN HARDEN
8889/16

TM 78-B-4
N/F
CHARLES & ROBINA O'ROURKE
15823/161

TM 78-B-3
N/F
JONATHAN BRADSTREET
25338/96

TM 78-B-42
N/F
GERALDINE & GERALD LOSIER
31068/165

TM 78-B-2
N/F
NINH DANG
32598/207

TM 78-B-1
N/F
DAWN LOVELACE
32283/48

TM 78-C-1
N/F
ROBERT RICHARDSON & PHILIP STOCKER
35679/59

TM 78-C-19
N/F
BK PROPERTIES LLC
34701/211

TM 78-C-29
N/F
GARY & RACHEL WENZEL
22153/27

9' WIDE RIGHT OF WAY 1762/296

METAL POSTS

WATER METER

IPF

IPF

IPF

1"IPF

1/2"IPF

5/8"IRF

#10

#9

#8

PAVED SIDEWALK

#7

OHW

DOUGLASS STREET
PAVED - PUBLIC - 52' WIDE

#12

CONGRESS STREET

SCALE : 1" = 30'
0' 15' 30' 60'

SCOTT

WHITNEY AVE

BOLTON ST

MASSACHUSETTS AVE

DOUGLASS ST

ST JAMES ST

SITE

SCHLL ST

CONGRESS ST

LOCATION MAP N.T.S.

LEGEND

IRON PIPE OR ROD FOUND	FENCE
MONUMENT FOUND	CURB
UTILITY POLE	OHW — OVERHEAD WIRES
MANHOLE	D — STORM DRAIN
SIGN	S — SANITARY SEWER
WATER VALVE OR SHUTOFF	G — GAS LINE
TREE	W — WATER LINE
	IPF/IRF — IRON PIPE OR ROD FOUND
	N/F — NOW OR FORMERLY
	000/000 — DEED BOOK / PAGE

PLAN REFERENCES

1. BOUNDARY WORKSHEET OF DOUGHERTY FIELD DOUGLASS STREET, ST. ST. JAMES ST. AND INTERSTATE 295, BY THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING SECTION DATED MARCH 2006, CITY PLAN 991/3.

2. PLAN OF PROPERTY IN PORTLAND, MAINE BELONGING TO THE J.B. BROWN & SONS CORP & HEIRS OF ST JOHN SMITH BY E.C. JORDAN & CO., CITY PLAN 463/5.

3. PLAN OF LAND CONGRESS AND DOUGLASS STREETS OWNED BY CITY OF PORTLAND PARK COMMISSION BY CHANDLER H. BARRON C.E. DATED NOVEMBER 1946, CITY PLAN 799/8.

4. ANODE BED EASEMENT DOUGLASS STREET AT DOUGHERTY FIELD BY CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION DATED 09/30/2016, CITY PLAN 882/53.

5. MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP STATE HIGHWAY "295" PORTLAND CUMBERLAND COUNTY FEDERAL AID PROJECT NO. I-295-3(24)8(25) DATED MAY 1967.

GENERAL NOTES

1. OWNER OF RECORD: CITY OF PORTLAND
389 CONGRESS STREET, PORTLAND, MAINE
TAX MAP 78 BLOCK C LOT 2
TAX MAP 78 BLOCK B LOT 7

2. BEARINGS AND COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD 83 PER PLAN REFERENCE 1.

3. THE SURVEYED PROPERTY IS IN THE R5 RESIDENTIAL ZONE.

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATION THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

RANDY R. LOUBIER, PLS #2407

DATE

Boundary Survey
At
43 & 91 Douglass Street, Portland, Maine
Made for
The Szanton Company
482 Congress St., Ste. 203, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: RS / JLW	DATE: MARCH 1, 2021	JOB NO. 2021-026 P	
CHECKED BY: RRL	SCALE: 1" = 30'	DRWG. NO. 1	

A. Developer

RFP#20067

Nathan Szanton
482 Congress, Suite 203
Portland, ME 04101
nszanton@szantoncompany.com
Phone: 207-871-9811
Fax: 207-245-6442

Alternative Contact:
Carl Szanton
cszanton@szantoncompany.com
Phone: 207-712-6191

B. Douglass Commons Proposal

Imagine a neighborhood that has gardens, courtyards, and green alleys where children of diverse backgrounds play and ride their bikes. Where adults chat about how to manage the grounds, while gardening in raised beds. Where in winter, a single mom and a retiree can share a cup of coffee in a warm, plant-filled space, while watching kids on the snowy playground outside. A neighborhood where retirees, immigrant families, and single parents have the option to rent or own their home, at an affordable cost, and share outdoor gardens and play space.

Douglass Commons aims to be that neighborhood, by building a mix of affordable apartments and Limited Equity Ownership homes on the former West School Site in the Libbytown Neighborhood of Portland, Maine. We hope that our vision will become a replicable model of diversity, equity, cooperation, and community throughout the city and region.

Proposed Use to Achieve the City of Portland's Goals: Market Demand (20 Points)
85% of homes will be priced to be affordable for households earning between 60%-100% of Area Median Income (AMI). Affordability restrictions on Limited Equity Co-op units will be permanent, and for the Apartments, the longest period allowed by law, secured by covenants.

Economic Diversity (10 Points) Douglass Street Commons provides housing options which promote economic diversity in the neighborhood by creating a mixed-income community with long-term affordability in both the Apartments and Co-op homes.

	LIHTC Apartments		**Co-op Ownership**		**Apartments + Co-op**	
Income Level: % of Area Median Income (AMI)	Homes	%	Homes	%	Homes	%
50% AMI	16	29%	0	0%	16	15%
60% AMI	24	43%	14	27%	38	35%
80% AMI	0	0%	17	33%	17	16%
Market Rate	16	29%	0	0%	16	15%
100% AMI	0	0%	21	40%	21	19%
Total	**56**	**100%**	**52**	**100%**	**108**	**100%**
Total homes between 60-100% AMI					**92**	**85%**

Age Inclusive (10 Points) Both the Co-op and Apartments provide housing which is age-inclusive. There will be large homes and play space for families with children, and small homes, social rooms, and gardens for adults of all ages. Cooperative ownership, shared spaces, and management of co-op by the Cooperative Development Institute will help cultivate community cohesion. We estimate 250 new residents, including 100 children.

Impact on Surrounding Neighborhood: Project Design (15 points)
Our proposal is consistent with the existing pattern, scale, massing, and materials of the surrounding neighborhood. The 3.24 acre site is a vacant lot bounded by playing fields, a site for a future playground, single family and multifamily homes, and a highway ramp. We hosted two design charrettes with both existing neighbors and future residents, and won support from the neighborhood association for our design. Douglass Commons will improve the neighborhood by:

- Creating green space and pathways, connecting transit, trails, and sidewalks that are welcoming to existing neighbors, bikers, pedestrians, and children.
- Facing new homes towards the future Douglass Street playground, fields, and skate park, will make them safer for neighborhood children.
- Replacing the road behind the existing homes on Douglass Street with trees.
- Placing new two-story homes near existing homes and larger buildings farther away.
- Providing community meeting space to the existing neighborhood.
- Accommodating storm water runoff with rain gardens.

Amenities and unit design (10 points)
Amenities & unit design have been well thought out and are appropriate for residents. A mix of unit sizes accommodate a wide range of household sizes and types. The Co-op is a combination of townhomes and 12 unit buildings with community rooms that look out onto patios and green spaces for outdoor eating and play, shared guest rooms, balconies, shared cars, garden plots, and EV charging stations. The Apartments will have a fitness room, community room, bike storage room, and an on-site resident services coordinator and property manager. The Apartments and Co-ops buildings will likely be built to passive house standards and have solar panels, exceeding the city's green building standards. The current unit mix estimates for the Apartments are as follows: 28 one-bedroom; 17 two-bedroom; 10 three-bedroom units. The current unit mix for the Co-op is as follows: 18 one-bedroom, 12 two-bedroom, 6 three-bedroom + 16 three-bedroom townhomes.

Applicant's ability to complete the project, including financial feasibility, development team experience, capacity, and timeframe for completion. (35 points total)

- **Readiness to proceed (15 points)** We have letters of commitment or interest from all projected sources of funding except where procurement rules disallow.
- **Track record of development team** (**10 points)** Every development team member has a successful track record with this type of project and at this scale.
- **Current capacity of development team (10 points)** Our development team members have exceptional depth of human and financial resources to complete this project. *(See attachments for details)*

Proposed Re-Zoning
The current zoning, R-5, allows a maximum of 47 units as planned residential unit development (PRUD). Based on the city's stated willingness to rezone to maximize the number of affordable

homes, to allow higher density to further exceptional projects, and to further the city's comprehensive plan, we plan to request a rezone to R-6 to allow for approximately 108 units.

C. Financial Feasibility

Prospective and Committed Sources of Funding & Letters from Lending Institutions

Apartments

- MaineHousing (Affordable housing tax credits, debt) - letter attached
- Northern New England Housing Investment Fund (investment in tax credits) - letter attached
- Bangor Savings Bank (construction loan) - letter attached
- City of Portland Affordable Housing TIF (75% for 30 years)

Co-op

- Centennial Mortgage HUD Section 213 Loan - letter attached
- Cooperative Fund of New England (CFNE) - Pre-development Funds - letter attached
- Share sales from prospective residents - equivalent of down payment on condo (Approximately $20,000/unit, variable by income level) - letter attached
- City of Portland Affordable Housing TIF (75% for 30 years) - letter not allowed
- City of Portland Housing Trust Fund ($400,000 est.) - letter not allowed
- Maine Housing Community Solutions Grant ($400,000 est) - letter not allowed
- GPCOG & EPA Brownfield Funds (up to $750,000, if needed) - letter now allowed

Attachments:

Attachment 1: Site Images
Site Photographs and Maps
Proposed Site Plan & Rendering

Attachment 2: Letters of Interest and Support
Letters: Libbytown Neighborhood Association, Cooperative Development Institute, Prospective Residents, MaineHousing, Northern New England Housing Investment Fund, Bangor Savings Bank, Centennial Mortgage, Cooperative Fund of New England

Attachment 3: Team Portfolios. Examples of prior projects that indicate the proven ability to develop a project of similar type and scale from a fiscal perspective.
Portfolios: Szanton Company, Maine Cooperative Development Partners, Kaplan Thompson Architects, Aceto Landscape Architects, Archetype Architects, UHAB, Cooperative Development Institute, Acorn Engineering, Credere Associates.

C. Financial Feasibility cont. Development and Operating Budgets

Co-op Development Budget

Project Costs			**Project Sources**	
Land Acquisition	$100,000		HUD 213 Loan	$13,038,000
Construction	$11,866,328		Co-op Member Equity	$1,162,050
Brownfields	$750,000		EPA Brownfields	$750,000
Professional & Consulting / Soft Costs	$1,216,198		Housing Trust + Community Solutions Grants	$800,000
Financing Costs	$1,022,836			
Architect	$794,688			
Total	**$15,750,050**		**Total**	**$15,750,050**

Co-Op Operating Budget

Annual Income	
Income from Rents	**$1,149,415**
AHTIF Income	**$193,000**
Total Income	**$1,342,415**
Annual Expenses	
Admin: Advertising, legal, software	$50,500
CDI Resident Services, Training	$25,000
Utilities: Electricity, Water & Sewer, Internet	$76,600
Replacement Reserve	$25,000
Taxes & Insurance	$277,000
Maintenance: snow, trash, landscape, repairs	$50,400
Total Expenses before Debt Service	**$504,500**
Net Income before Debt Service	$837,915
Debt Service	$803,900
Net surplus	**$34,015**

C. Financial Feasibility cont. Development and Operating Budgets

Apartments Development Budget

Project Costs			**Project Sources**	
Land Acquisition	$375,000		Equity – Federal Housing Tax Credits	$6,879,312
Construction Including Environmental Remediation	$10,876,172		Interest-Only Mortgage from Maine Housing	$6,474,690
Consulting & Professional Fees	$845,500		Deferred Loan from MaineHousing	$800,000
Financing Fees & Construction Loan Interest	$604,398			
Architectural /Engineering	$457,000			
Operating Escrows	$609,932			
Legal	$176,000			
City/State/Federal Fees	$135,000			
Insurance	$55,000			
Taxes	$20,000			
Total	**$14,154,002**		**Total**	**$14,154,002**

Apartments Operating Budget

Annual Income	
Annual Residential Rents	$782,507
Laundry Income	$13,440
Proposed TIF returned from City	$75,600
Total Income	**$871,547**
Annual Expenses	
Administrative	$112,579
Utilities	$75,400
Maintenance	$105,000
Taxes & Insurance	$106,400
Debt Service	$388,482
Required Reserve Contributions	$25,200
Total Expenses	**$813,061**
Annual Cash Flow	**$58,486**

D. Timetable:

Provide an overview of how the proposal will be implemented. Include approximate schedule for completion of each element, closing, construction start-up, substantial completion, final completion, and occupancy. Include applications for public or private financing.

Month	**Apartments**	**Co-op**
April 2020	RFP Released, Form team	
May 2020	Outreach to future residents, and neighborhood groups for Design Charrettes	
June 2020	RFP Deadline	
Aug 2020	RFP Award, Obtain site control, Apply for new EPA Phase 1, do additional Brownfield tests, apply for CFNE funds for Co-op	
Oct 2020	Apply for EPA Brownfield Grant	
Jan 2021-July 2022	Start TIF request to City of Portland, LIHTC apply for CDBG Funds from Maine DECD, Work on obtaining Zone Change from City of Portland	
Mar 2021	EPA Brownfield Award Notification	
Mar 2021	Market Study, Obtain renewed letters of interest from investor and construction loan support	Apply for Housing Trust Fund and Community Solutions Grant, Start HUD Concept Package
Jun 2021	Planning Board Review	Market Study, Marketing, Start Pre-sales
Jul-Sep 2021	Prepare & submit Tax Credit Application to Maine Housing	Start HUD Phase I application, Design & Permitting, HUD Processing
Nov 2021- Apr 2022	Get results of LIHTC Application Review, Design Development and Construction Documentation	Design Development and Construction Documentation
Dec 2021 - Jan 2022	Interview and select construction manager	Interview and select construction manager
Mar 2022	Start Construction Bidding Process	Start Construction Bidding Process
May 2022	Receive Construction Bids	Receive Construction Bids
Jul 2022	Construction Loan Closing	HUD 213 Loan Closing
Jul 2022- Aug 2023	Construction	Construction
Aug 2023	Doors Open	

E. Developer Capacity:
Identify the qualifications and experience of the development team for the project including a list of previously completed projects similar to the proposed project. This team may include key staff of the developer, architect, general contractor and future property management. Also, discuss the ability to complete the project including the qualifications of the development team, management plan, experience, capacity, project readiness to proceed, and timeframe for completion. Examples of prior projects that indicate the proven ability to develop a project of similar type and scale from a fiscal perspective.

We have assembled an experienced and qualified team where every core member of this team has completed projects of this size and scale. The Szanton Company has an exceptional depth of human and financial resources to complete this project. They have currently completed 9 projects of this size and scale, and their 10th and 11th are currently in construction. The Szanton Company has brought on a number of its specialists to aid with designing this innovative village that excel in green design, site planning, and environmental remediation. The Szanton Company is committed to long-term ownership of its apartment assets. In 2013, it founded Saco Falls Management, its property management arm, to ensure the highest standards of appearance and livability for our residents, neighbors, and communities. The Co-op team has assembled a team of local professionals with excellent reputations, supported by outside consultants to cover every aspect of a new construction limited equity cooperative of this size. The HUD 213 program is designed specifically for cooperatives, and offers favorable terms which support long-term affordability. Project completion is projected for summer 2023. The Apartment and Co-op teams will work together on overall site design, civil engineering, zone change, and brownfields cleanup.
See Attachment 3: Portfolios

Team Member	**Company**	**Role**	**Similar Projects Completed**
Nathan Szanton	The Szanton Company	Apartment Developer President	Casco Terrace, Walker Terrace, 53 Danforth, Furman Block, The Squamscott Block, 48 Hampshire, Huse School Apartments, Mill at Saco Falls, Lofts at Saco Falls, Lofts at Bates Mill
Robert Monks	The Szanton Company	Partner	Created over 6,000 units of affordable housing across the country; In Portland, redeveloped the Portland Performing Arts Center, Baxter Library, and Oak Street Dorms

Amy Cullen	Saco Falls Management	Apartment Management President	Casco Terrace, Walker Terrace, 53 Danforth, Furman Block, The Squamscott Block, Huse School Apartments, Mill at Saco Falls, Lofts at Saco Falls, Lofts at Bates Mill
David Lloyd	Archetype Architects	Apartment Architect	Verdante, Hobson's Landing, 20 Thames Street, Bramhall Row, 118 on Munjoy Row, One Joy Place, Luminato, 81 Danforth, Casco Terrace, Walker Terrace, 53 Danforth, Furman Block, The Squamscott Block
Brian Eng	Partner, Maine Cooperative Development Partners	Co-op Development Team	M North in Orlando, 288-units in Orlando, Florida. (https://www.mnorthorlando.com/) Master developer of city-owned land on the former Maine Energy Recovery Corp. in Biddeford
Liz Trice	Partner, Maine Cooperative Development Partners	Co-op Development Team	645 Congress Street (with Shinberg/Alfond), Danforth on High (Rando Orbit/Peter Bass), 58 Boyd (Portland Housing Authority), all Portland.
Matt Peters	Partner, Maine Cooperative Development Partners	Co-op Development Team	Young St Apartments, South Berwick; Ridgewood II, Gorham One Meeting Pl, Exeter, NH; Meadows, North Hampton, NH; Carleton St, Portland; Bayside Anchor, Portland; Bartlett Woods, Yarmouth
Jesse Thompson	Kaplan Thompson Architects	Co-op Architect	Parris Terraces, Portland ME; Harborview Townhomes, Portland ME; Blackstone Senior Living, Falmouth, ME; Bayside Anchor Apartments, Portland, ME
Nick Aceto	Aceto Landscape	Landscape	The Downs, Scarborough ME (510

	Architects	Architect	Acre Mixed-Use Master Planned Community); Phases 1 & 3; Jackson Laboratory, Bar Harbor ME (37 Acre Employee Co-Housing Community); Cumberland Multi-Gen COmmunity https://www.mainebiz.biz/article/future-proofing-development-designers-are-ready-for-climate-change
Rip Patten	Credere Associates LLC	Brownfield Assessment & Cleanup Consultant	Marada Adams School, 48 Moody Street, Portland; Thornton Heights Commons, 611 Main Street, South Portland; State Street School, 261 Center Street, Brewer
Jonah Fertig-Burd	Cooperative Development Institute	Co-op Formation & Management	Mountainside Cooperative, Camden, ME (52 units); Charter Oaks, Arundel, ME (40 units); Sunset Terrace, Rockland, ME (76 units); Wardtown Cooperative, Freeport, ME (60 units); Halifax Mobile Home Estates Association, Halifax, MA (430 units); Farrington's/North Avenue Co-op, Burlington, VT (117 units)
Andy Reicher	UHAB	Co-op Formation Consultant	In Manhattan: 3603-3605 Broadway, 42 unit conversion, 520, 540-550 West 144th Street, 90 units, 421-555 West 148th Street, 98 units; 110 Madison Ave & Jupiter 21, Off-site Inclusionary
Will Savage	Acorn Engineering	Civil Engineer	Meeting House Hill Park Redevelopment; Munjoy Heights; 200 Valley St - Avesta; Little Dolphin Drive & Jocelyn Place, 89 Anderson; The Hiawatha

F. Occupancy and Management Plan: *Present a plan detailing the ownership structure (condominium, cooperative, etc.), resale restrictions and resale process, to ensure mixed income and long-term affordability.*

The Co-op and Apartments will be managed separately.

The Cooperative Development Institute (CDI) will be responsible for the creation of the cooperative ownership structure, management, and will ensure implementation of the permanent affordability provisions. Andy Reicher, executive director of UHAB in New York City, will be a consultant to set up a structure to train future residents in managing their buildings, and help seed future cooperative ownership projects.

The Co-op ownership structure is a Limited Equity Cooperative as defined in Maine State Law, meaning that residents rent from an entity that they co-own. This type of cooperative is democratically owned and operated similar to a condo structure, but allows for a wider range of income affordability, as residents do not have to qualify for a mortgage. Resident-owners pay a share price similar to a small down payment, then have a monthly payment similar to rent or mortgage. The Co-op itself holds the mortgage for the property, and over time, the homes become more affordable as expenses increase only with actual expenses - there is no profit motive. New residents must meet income requirements, and monthly costs must not exceed 30% of the Area Median Income (AMI) income bands. These rules continue in perpetuity.

There are currently over 20 households of prospective residents that have been meeting for over a year. The group includes multiple established immigrant families that share a vision of mixed-income ownership housing with shared community facilities and outdoor space. The development team will continue to work with these residents to crystalize their vision for site design, for self-governance, and to recruit more households.

The Apartments will be managed by Saco Falls Management, which manages all of The Szanton Company’s buildings. Saco Falls Management was founded in 2013 to manage properties developed by The Szanton Company, of which Nathan Szanton, Robert C. S. Monks, and Amy Cullen are the primary owners. Upon its founding, Saco Falls Management took over management of six properties with the addition of three properties since its opening. Its portfolio includes Casco Terrace, Walker Terrace, and 53 Danforth in Portland, ME; The Mill at Saco Falls and The Lofts at Saco Falls in Biddeford, ME; The Lofts at Bates Mill and The Hartley Block in Lewiston, ME; The Huse School Apartments in Bath, ME; and The Squamscott Block in Exeter, NH. Nathan Szanton, Robert C. S. Monks, and Amy Cullen are the owners of Saco Falls Management.

Both Apartment and Co-op homes will be principal residences and will not be used to conduct business (except for a home occupation allowed under the City of Portland zoning ordinance) or as investment properties. Units may not be rented for short-term periods of one to thirty days.

G. Purchase Price:

The City expects to receive Fair Market Value ("FMV") for the property. This is a desirable location with many nearby amenities, but its environmental history makes it a difficult and expensive site to develop housing, especially affordable, quality housing with safe outdoor space for families.

Historically, the former West School site and most of Dougherty Field were part of the salt marsh that ran from Back Cove almost to the Fore River. The site was under water until 1869, then was excavated for its clay to use in brick manufacturing. The site was then used from the early 1900s until the 1950s by the City of Portland as a municipal dump. In 1961, the City planned and built the West School on the site, then used it as an education, continuing education, and community center until 1997. The site still has solid waste buried 18 to 24 inches under the surface and soil contaminated with lead. The former West School building experienced structural and environmental problems from 1981 to 1997, as a result of settling and methane gas from the former landfill. There are also a gas company easement and sewer easement making significant portions of the site unbuildable.

We are committed to avoiding the environmental and site design mistakes that resulted in safety and structural issues for the West School, and creating permanent spaces for future residents, just as we are planning for long-term affordability. Because of the seriousness of the contamination, the environmental remediation costs will be significant.

We began our estimate by assuming a value for clean land in this location of $450,000/ acre. Of the 141,487 SF of lot area, we currently estimate 40,000 SF of building footprint, and an additional 5,000 SF of areas for community garden and child play that requires clean soil, and an additional 10% for planning, management, and contingency. At an estimated $20/sf to remove and/or replace soil, our estimate ranges from $750,000 to $1,000,000 in anticipated costs. So we estimate $1,458,000 minus up to $1,000,000 in remediation costs, many of which won't be known until we are fully committed to the development of the site, and the delay of up to a year's worth of staff time, property taxes, and uncertainty, while we apply for EPA Brownfield funds and conduct remediation.

Taking into account the best interests of the existing and prospective neighbors, and the city's intention to provide affordable housing to families, and development budget feasibility, we are able to offer $475,000 for the property, which we believe to be Fair Market Value.

PROPOSAL
NOTE: THIS PAGE IS TO BE COMPLETED AND RETURNED

The UNDERSIGNED hereby declares that he/she or they are the only person(s), firm or corporation interested in this proposal as principal, which it is made without any connection with any other person(s), firm or corporation submitting a proposal for the same.

The UNDERSIGNED hereby declares that they have read and understand all conditions as outlined in the Request for Proposals, and that the proposal is made in accordance with same.

The UNDERSIGNED hereby declares that any person(s) employed by the City of Portland, Maine, who has direct or indirect personal or financial interest in this proposal or in any portion of the profits which may be derived therefrom has been identified and the interest disclosed by separate attachment. (Please include in your disclosure any interest which you know of. An example of a direct interest would be a City employee who would be paid to perform services under this proposal. An example of an indirect interest would be a City employee who is related to any officers, employees, principal or shareholders of your firm or to you. If in doubt as to status or interest, please disclose to the extent known).

The proposer acknowledges the receipt of Addenda numbered 1-4
If Applicable

COMPANY NAME: The Szanton Company
(Individual, Partnership, Corporation, Joint Venture)

AUTHORIZED SIGNATURE: [signature] DATE: 6/15/20
(Officer, Authorized Individual or Owner)

PRINT NAME & TITLE: Nathan Szanton, President

ADDRESS: 482 Congress St, Suite 203, Portland, ME 04101

TELEPHONE: 207-712-6191 E-MAIL: Cszanton@szantoncompany.com

FEDERAL TAX ID #: 01-0533208 DUNS #: 11-700-3073

STATE OF INCORPORATION Maine
(If incorporated in another State, businesses must be authorized to do business in the State of Maine.)

In your organizations preceding completed fiscal year, did the organization receive:
(1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; AND
(2) $25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements? ☐ Yes ☑ No

Does the public have access to information about the compensation of the executives in the organization through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (18 U.S.C. 78m(a), 78o(d) or section 6104 of the Internal Revenue Code of 1986? ☐ Yes ☑ No

NOTE: All bids must bear the handwritten signature of a duly authorized member or employee of the organization making the bid. **This sheet must be signed and returned with the application package**.

June 11, 2020

Honorable Mayor and Councilors:

The Libbytown Neighborhood Association held a special meeting to consider the *Douglass Commons* proposal for the redevelopment of 43 & 91 Douglass Street, aka, the old West School site. The meeting was well attended after a robust discussion, we are pleased to express our support for this proposal. Please factor these recommendations into your consideration of *Design and Amenities* as specified in the *Impact on the Surrounding Neighborhood* section of the RFP score sheet.

With respect to design, the LNA supports projects of quality and distinction which may serve as a neighborhood landmark. Given that the existing fabric and architecture lacks a singular quality, the association would like to see something architecturally notable. Furthermore, the Libbytown Neighborhood is somewhat diverse socio-economically with a prevalence of low to moderate income. The Libbytown Neighborhood Association is strongly supportive of new housing particularly mixed income projects with a focus on low and middle income.

In terms of this projects' design program, we:

- Strongly support this project's *use of site and integration with Park amenities*
- *Modestly Support* this project's interaction with adjacent structures and would advocate for the largest possible set back buffers from adjacent properties on Douglass Street

The area is underserved as it lacks a school, community space, a vibrant commercial corridor, bus shelters, and other staples of urban life. As such, in terms of amenities we:

- Strongly support community *garden/food forest*
- Strongly support the overall commitment to *housing affordability* especially the commitment to mixed incomes and to low to moderate income housing

- Strongly support the commitment to *ethhnic diversity* and the possibility of thereof (such as ESL training)
- Strongly support this projects commitment to *sustainability* especially the solar arrays, passive house standards and *tree & shrub* planting
- Strongly support quality *community space* that is open and accessible
- Strongly supports *shared street concept* or piazza concept which can become a flexible community gathering space
- Support commitment to *active transport* and the integration of transit, limited parking, and commitment to traffic demand management

The following items are community priorities in design and amenities that may be part of the program but that we did not see as explicit in this proposal. We believe that a strong commitment to the following would make the project better:

- Implementations of the recommendations of the Libbytown traffic study
- Streetscape and bicycle/pedestrian improvements along Congress Street
- Acknowledgement to the history of the site in terms of project name and building materials (e.g., the site sits on or near a former brick foundry)
- Public transit (such as trolly cars), car share, and other reductions to parking
- Stormwater design
- Environmental mitigation of the site
- ADA access within the site to community spaces in winter months

Overall we **highly recommend** this proposal for its commitment to neighborhood design improvements and amenities.

The Libbytown Neighborhood is grateful for your consideration of this proposal.
Sincerely,
Maureen Morse
Chair

COOPERATIVE DEVELOPMENT INSTITUTE
P.O. Box 1051, Northampton, Massachusetts 01061-1051
PH 413-665-1271 • FX 413-541-8300 • www.cdi.coop • info@cdi.coop

June 8, 2020

To whom it may concern:

The Cooperative Development Institute (CDI) is happy to support the proposal for the creation of a new construction limited equity co-op on Douglass Street.

CDI is a 501(c)3 nonprofit founded in 1994 by co-op leaders to work with people in the Northeast to create cooperative businesses and networks that grow a prosperous, equitable economy.

CDI provides expert assistance, organizational development, and support to groups undertaking cooperative development. In the past decade, CDI has helped create 47 new Resident Owned Communities (ROCs) in New England, representing 4,479 households. 8 of the ROCs are conversions of manufactured home parks in Maine. CDI's role is to help form new cooperatives, train residents, and ensure that the cooperative has the support it needs to remain permanently affordable.

Our intention is that at Douglass Street, CDI will:

- Lead the creation of the new Co-op entity.
- Lead resident training and resident participation in the construction phase.
- Create and administer a long-term management plan that would meet the city's TIF requirements to ensure that the property meets the city's affordability metrics for at least 30 years.
- Be the long term training & support organization for the Co-op.

We are pleased with the proposal and the development team, and hope to be part of this exciting project!

Sincerely,

Noémi Giszpenc
Executive Director

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discrimination on the base of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.) To file a complaint of discrimination write USDA, Director, Office of Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (voice and TDD).

Future Residents of Douglass Commons Co-op

June 2020

To whom it may concern:

We are writing in support of the Douglass Commons proposal to build housing on the parcel put to RFP by the City of Portland.

Many of us have been meeting for the last 2 years to explore strategies to build affordable home ownership housing in Portland that builds community among people of different ages, incomes, and cultural backgrounds. Several months ago, we came to the conclusion that Limited Equity Cooperative Housing was the best way to accomplish this. Limited Equity Cooperatives combines the accessibility of renting with the long-term stability and autonomy of homeownership.

We are delighted that this development team has come together to bring Limited Equity Cooperative Housing to Portland and enthusiastically support their projects. We are especially excited about the effort to create designs that will maximize interaction with outdoor spaces, gardens and shared spaces that can be used by residents. We also appreciate their effort to include us and existing neighbors in their early design efforts.

We are excited about the location, and hope that we will have the opportunity to become future residents!

Sincerely,

1. Rachel Ackoff & Lee Leviter, 19 Lewis St Apt 1F Portland, ME 04102
2. Eric Muteba Kalala, 11 Massachusetts Avenue Apt #2 Portland, ME 04102
3. Cynthia A. Grier, 1227 Westbrook Street, Apt #2, Portland, ME 04102
4. Elisabeth C. Heij, 97 Pitt Street, Portland, ME 04103
5. Valerie and Matthew Todd, 68 Black Sparrow Drive, Portland, ME 04102
6. Nicole Ivins and Richard Bennett, 93 Pitt St #1, Portland, Me 04103
7. Jules Mutoni & Yvette Unezase, 77 Grant St Apt B13, Portland, ME 04101
8. Wendy Herbert & Peter Ackoff 112 Park St. #2, Portland, Me
9. Apollo Karara, 326 Auburn Street #16, Portland, ME 04103
10. Andrea Levinsky 39 Cumberland Rd Apartment 1 South Portland, ME
11. Jacques Kubwimana & Ange Christelle Abaribeza 61 Deering St.Apt #E 04101
12. Arthur Sabiti & Vanice Busingye, 240 cumberland st, Westbrook 04092 ME
13. Jackson Ntambara & Peace Kobusinge, 2 walker street # 1203 Westbrook 04092 ME

MaineHousing
MAINE STATE HOUSING AUTHORITY

June 1, 2020

Matthew F. Fitzgerald
Purchasing Manager
The City of Portland
389 Congress Street
Portland, ME 04101

RE: Request for Proposals for 43 & 91 Douglass Street

Dear Mr. Fitzgerald:

MaineHousing is pleased to provide this letter of interest for The Szanton Company's proposal to redevelop a portion of the former West School site. Our understanding is that there will be a mixed-income housing project constructed on the site, potentially financed in part by MaineHousing resources. In our 24-year relationship with The Szanton Company, the applicant has demonstrated an exceptional track record in navigating the processes of market research, site acquisition, design, regulatory approvals, financing, construction, and marketing of a high-quality housing product.

While this letter of interest is not a commitment to allocate affordable housing tax credits, MaineHousing would welcome an application in connection with this project. Based on The Szanton Company's track record, an application would have a strong likelihood of success. Please feel free to contact me directly with any questions.

Sincerely,

Mark C. Wiesendanger
Director of Development

NORTHERN NEW ENGLAND
HOUSING INVESTMENT FUND

5/28/2020

Carl Szanton
Development Associate
482 Congress Street, Suite 203
Portland, ME 04101

RE: Letter of Interest – Douglass Street Project ("Partnership")

Dear Carl:

We are pleased to provide this letter of interest for the creation of affordable and market rate housing in Portland, Maine. As you know, Northern New England Housing Investment Fund ("NNEHIF") invests in community-based projects receiving the Federal Low Income Housing Tax Credit. We understand that you anticipate generating approximately $800,000 in annual Low Income Housing Tax Credits.

Upon satisfactory resolution of any funding requirements and satisfactory competion of our due diligence we would be interested in investing $6,878,980 in exchange for a 99.99% limited partnership interest in the Partnership. Approximately 50% of these funds may be available from closing and throughout construction.

This letter of interest is conditioned on the Fund conducting all customary underwriting and due diligence and receipt a final pro-forma, approved by MaineHousing, that addresses any additional loans, grants, fees or other sources.

A more detailed letter of interest will be provided once all the capital sources have been committed.

We wish you great success in your application and look forward to our continued work together.

Sincerely,

Mark Brooks
VP of Underwriting
Northern New England Housing Investment Fund

May 27, 2020

The City of Portland
Planning Department
389 Congress Street
Portland, ME 04101

RE: 43 & 91 Douglass Street

To Whom It May Concern:

On behalf of Bangor Savings Bank I am pleased to provide this letter in support of The Szanton Company for the above-referenced project. Based on our review of the financial elements of the proposal for the development site, we believe that that the applicant has the ability to finance projected costs and develop a project of similar type and scale from a fiscal perspective.

While this letter of support is not a commitment to lend, Bangor Savings Bank would welcome the opportunity to be a resource to The Szanton Company for financing and sponsorship of any equity awards necessary in connection with this project. Please feel free to call me with any questions.

Sincerely,

Ronald B Hunt
Vice President
Bangor Savings Bank - Commercial Lending
280 Fore Street, Suite 200
Portland, ME 04101
(207) 420-3967

June 12, 2020

Liz Trice
Principal
Maine Co-op Development Partners
795 Congress Street
Portland, ME 04102

RE: Douglas Commons Cooperative

To whom it may concern:

Centennial Mortgage has been engaged by Maine Co-op Development Partners to secure mortgage insurance through the FHA 213 program for cooperative housing and fund a construction/permanent mortgage for Douglas Commons Cooperative, a new cooperative housing project in Portland, ME. We have reviewed a financing request, including initial plans, pro forma operating budget, the construction budget and initial market information for Douglas Commons Cooperative in Portland, ME. In addition, we have reviewed the experience of the overall development team. Based on this review, we feel that this project is an excellent candidate for financing and will conform to all the requirements to qualify for construction and permanent financing through the FHA 213 program. We feel that this is the right time and place to create a new affordable cooperative given the advantages this particular form of housing provide to its members, primarily affordable home ownership and a greater sense of community.

We have now entered the formal application stage for the FHA 213 mortgage insurance and believe that Douglas Commons Cooperative has a high likelihood of obtaining a 40 year, low interest loan for the project of $13,308,200. Additional subordinated financing would serve to further increase that likelihood. We also believe that success at Douglas Commons Cooperative will open an entirely new avenue for affordable housing finance in the state of Maine by making the FHA 213 program finance accepted in the market.

Centennial Mortgage has substantial expertise and experience completing FHA financing transactions. We are very active in lending to cooperative housing projects throughout the country Personally, I have been involved in cooperative housing for over 20 years, through financing and serving on the board of the National Association of Housing Cooperatives.

We encourage other funding sources to join us in supporting this innovative project and creating up to 98% leverage for future projects through this program. Please let me know should you have any questions or require any additional information.

Sincerely,

Hugh Jeffers
Vice President of Originations

Phone: 202-415-1862 Email: hjeffers@centennialmortgage.com

COOPERATIVE FUND of New England

June 12, 2020

Liz Trice, Principal
Maine Co-op Development Partners
795 Congress Street
Portland, ME 04102

Dear Liz:

Please let this letter serve as an expression of interest in working with Maine Co-op Development Partners to provide financing for the land purchase and predevelopment costs associated with the development of “Douglass Village” cooperatively-owned limited equity housing in Portland, Maine.

Since CFNE's founding in 1975, we have made over 1,000 loans, totaling over $60 million, including many loans to support the purchase of cooperatively-owned real estate property. We look forward to seriously consider an application to provide a loan of up to $855,000 for the above-mentioned purpose.

The terms of any loan would depend on the strengths of the application, collateral, other funders and financing, and the project’s *pro forma* for expected cash flow and ability to make payments. Our customary range for interest is 5 -7% and most loans are made with terms of 5-10 years, with a longer amortization possible so that the actual loan payment amounts are affordable.

Our loan committee meets the second or third Thursday of each month, and the deadline for an application is the 15th of the previous month. The process for consideration takes a total of three to four weeks, though sometimes longer, and includes a site visit. My colleague, Deborah Hawkins, will be your loan outreach officer and will usher your application through our committee.

Please let us know if we can provide any other information and we look forward to working with your loan application and other capital needs. Thank you for using the services of the Cooperative Fund.

COOPERATIVE FUND OF NEW ENGLAND, INC.

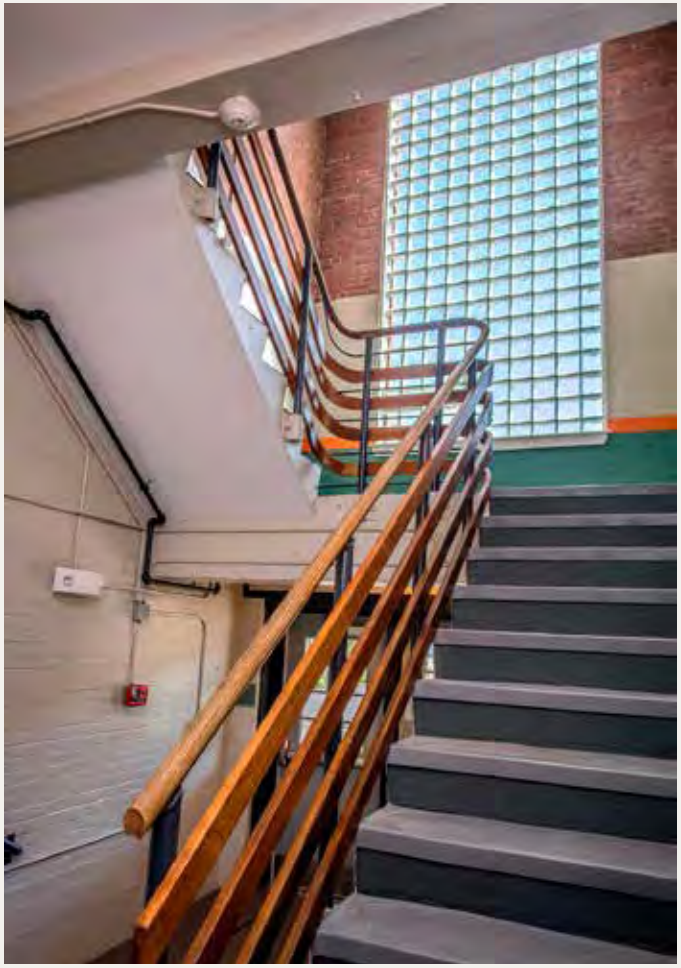
By: Dorian Gregory

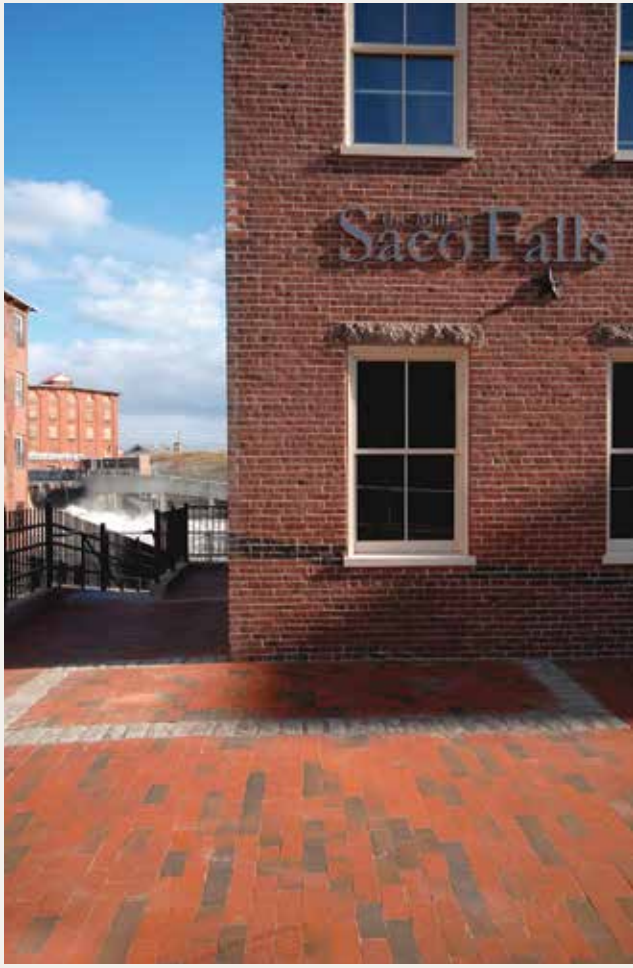
Dorian Gregory, its Deputy Director

P.O. Box 970, Watertown, MA 02471
800.818.7833 I www.coopfund.coop I cfne@cooperativefund.org

THE SZANTON COMPANY
an Affiliate of the Monks Companies

41 STATE STREET




Saco Falls

ABOUT THE SZANTON COMPANY

The Szanton Company, an affiliate of the Monks Companies, specializes in developing mixed-income rental housing in or near downtowns. We have completed eight apartment projects in Maine and New Hampshire totaling 393 units.

The mission of The Szanton Company is to create attractive and affordable rental housing that our residents are proud to call home. We do this by:

- Creating beautiful apartments of high quality in locations in or near downtowns, adding vitality to our cities and towns;
- Developing properties which provide a consistent, long-term return to their owners, thus ensuring their stability for residents, lenders, and neighborhoods;
- Serving people with diverse incomes;
- Creating amenities for our residents which enhance the quality of their lives;
- Incorporating environmental and energy sustainability in our properties, thereby reducing their impact on the earth's environment.

The Szanton Company is committed to long-term ownership of our apartment assets. In 2013, we founded Saco Falls Management, our property management arm, to ensure the highest standards of visual appearance and livability for our residents, neighbors, and communities.

Rooftop solar panels at 53 Danforth

PRINCIPALS & STAFF

NATHAN SZANTON, PRESIDENT

Nathan founded the company in 1996. Since then he has been responsible for developing 617 apartment units in 24 projects. As manager or principal partner in these projects, Nathan has successfully navigated the process of market research, site acquisition, design, regulatory approvals, financing, construction, and marketing.

He has committed himself to creating comfortable and affordable rental homes for residents with diverse incomes. Some of these have been adaptive reuses for underused historic buildings; others have been thoughtfully designed new construction. Nathan holds a B.A. from Harvard University and a J.D. from the University of Maine School of Law.

ROBERT C.S. MONKS, PRINCIPAL

Robert C.S. Monks is an active capital partner and also provides a deep understanding of real estate development and financing. Throughout his career he has founded, led, and grown 19 businesses in the financial services, real estate, technology and communications sectors.

In 2011, Bobby became an owner and Chairman of Spinnaker Trust, a Maine based trust company managing over $1 billion in assets. Bobby attended Duke University and graduated from the University of Southern Maine with a Bachelor's Degree in Political Science.

Above: Walker Terrace
Left: The Mill at Saco Falls

Facing Page: The Lofts at Bates Mill

AMY CULLEN, VICE PRESIDENT AND PROJECT PARTNER

Amy joined The Szanton Company in 2006. Her responsibilities include: discovering new project locations, creating financing packages, and working with all development team members to help projects come to life.

Amy also serves as president of our sister company, Saco Falls Management, where she oversees all operations.

Prior to joining The Szanton Company, Amy was on active duty with the U.S. Army for six years, and served as a Training Program Manager for the Department of Defense in Minneapolis, MN. She holds a Bachelors of Science Degree in Accounting from Husson University.

KRISTIN MARTIN, DEVELOPMENT OFFICER

Kristin joined our company in 2013. Her responsibilities include finding and researching sites for new projects, preparing financial analyses, and evaluating development options. She coordinates with lenders, attorneys, architects, engineers, contractors and others on all aspects of The Szanton Company's development projects from concept to completion.

Prior to joining The Szanton Company as a Development Officer, Kristin worked for Saco Falls Management as an Assistant Development Officer, Property Manager and Director of Property Management. She holds a Bachelor of Health Science and a Masters of Occupational Therapy from Quinnipiac University.

ABOUT SACO FALLS MANAGEMENT

HISTORY

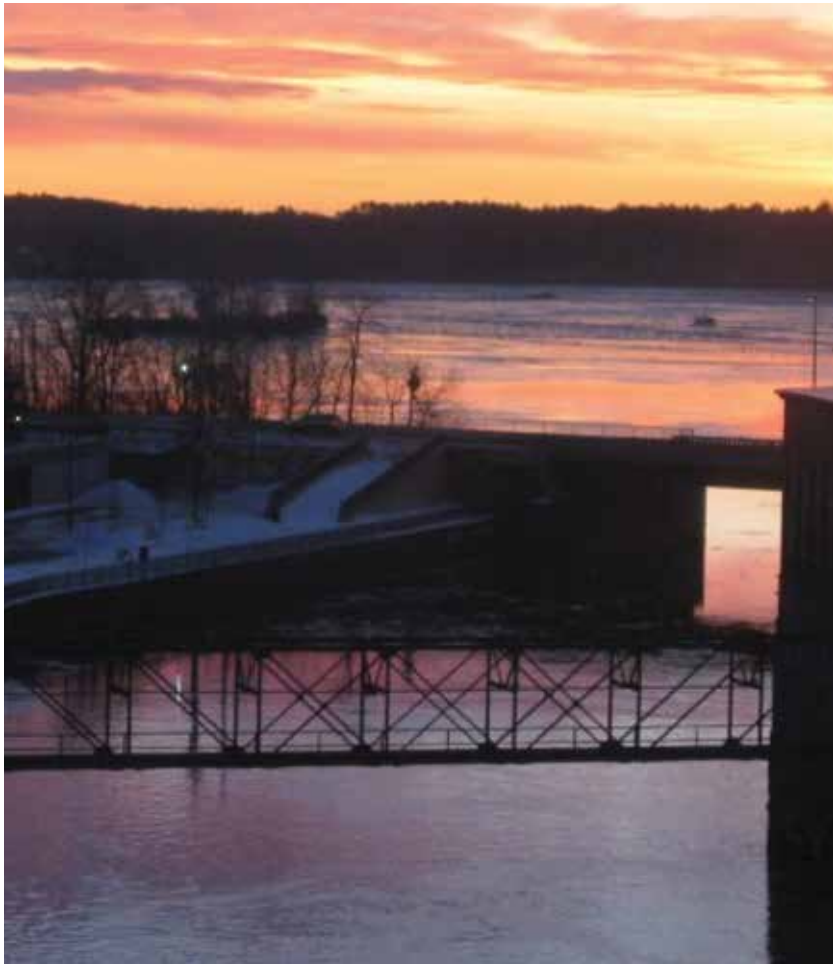
Saco Falls Management is a full-service management company formed by The Szanton Company in 2013 to manage its rental properties, both residential and retail. Since then, the physical condition of the buildings has improved, tenant satisfaction has increased, and the profitability of the properties has grown. We are committed to managing our properties for the long-term with the highest sense of responsibility to our residents, financial partners, and host communities.

OUR MISSION

Our mission is creating rental properties that exceed expectations. We are guided by the following core values: honesty, integrity, candor, high standards of quality, respect for all with whom we deal, openness to new ideas, and a culture of continuous learning and enhancement of our knowledge and skills.

Walker Terrace

SACO FALLS MANAGEMENT

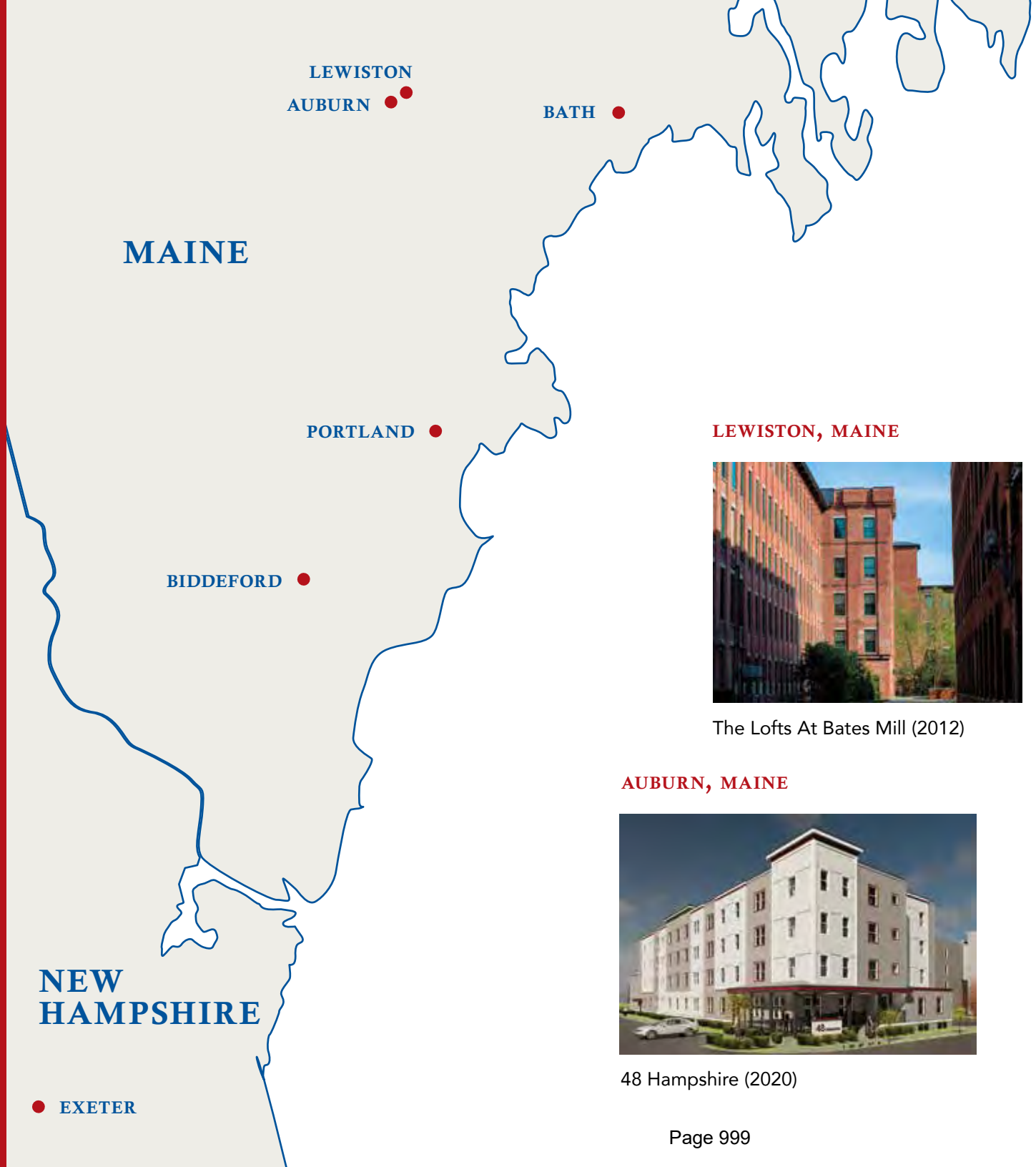


View from an apartment at The Mill at Saco Falls

RESIDENT SELECTION

Saco Falls Management Company complies with all state, local, and federal laws regarding fair housing practices or occupancy and resident selection procedures. In addition to program-specific requirements, all adult applicants are screened by our management staff. To be considered for residency at one of our properties, all applicants must have:

- References from prior landlords that show a history of good tenancy. This includes paying rent on time, keeping their unit in good repair and being a good neighbor by following the community rules.
- A favorable credit report.
- An absence of criminal history. We run a criminal background check on all applicants. Any applicant with a history of public disturbances, arrests, criminal activity, listing on the sex offender registry or other law enforcement problems that may indicate behavior inconsistent with lease obligations will be denied.



BATH, MAINE

Huse School Apartments (2017)

LEWISTON, MAINE

The Lofts At Bates Mill (2012)

The Hartley Block (2019)

AUBURN, MAINE

48 Hampshire (2020)

PORTLAND, MAINE

Casco Terrace (2004)

Walker Terrace (2006)

53 Danforth (2009)

The Furman Block (2020)

BIDDEFORD, MAINE

The Mill At Saco Falls (2010)

The Lofts At Saco Falls (2016)

EXETER, NEW HAMPSHIRE

The Squamscott Block (2007)

CASCO TERRACE

41 STATE STREET, PORTLAND, MAINE

Above Left: Casco Terrace, after. *Right:* Casco Terrace, before

Facing page: Top: Casco Terrace from State Street
Bottom: Casco Terrace interior

"...CITY OFFICIALS SAY THE STATE-FINANCED PROJECT IS THE KIND OF DEVELOPMENT PORTLAND NEEDS..." —*Portland Press Herald*

CASCO TERRACE is a 27-unit vertical addition on an existing 27-car parking garage (see before and after photos opposite). The pre-construction newspaper story below describes the project's highlights and the need it addresses in a city desperate for affordable housing.

From the *Portland Press Herald*, May 28, 2003:

"It began as one of the first parking garages in Portland, at a time when few people owned cars …

…City officials say the state-financed project is the kind of development Portland needs to help stem suburban sprawl and provide affordable rental housing for its workforce. They also give it high marks for being attractive and practical, and making the most of an under-used lot with desirable views of the waterfront.

…'It's a project with a lot going for it', said Mark Adelson, Executive Director, Portland Housing Authority."

YEAR COMPLETED: 2004
UNITS: 27 (14 Market-Rate + 13 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Wright-Ryan Construction
FINANCING: MaineHousing and TD Bank

WALKER TERRACE

1 WALKER STREET, PORTLAND, MAINE

WALKER TERRACE is a six-story building that replaced an abandoned gas station, transforming the site and the neighborhood around it. It also helps to fulfill the city's goal of providing greater housing density along public transportation arteries. Walker Terrace is the first apartment building in Maine built to Maine State Housing Authority's Green Building Standards.

From the *Portland Press Herald*, September 21, 2004:

"Eager for any smart-growth infill opportunity to augment urban housing and curb Greater Portland sprawl, the Portland City Council unanimously let developer Nathan Szanton build 40 varied-income rental units on 0.4 acres of a former gas station in the West End, more than twice the number the current zoning allows, with Mayor Nathan Smith saying, 'This project does just about everything we as a city have been asking for.'"

YEAR COMPLETED: 2006
UNITS: 40 (18 Market-Rate + 22 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Portland Builders
FINANCING: MaineHousing; the City of Portland; Centerline Capital; Bank of America.

"...THIS PROJECT DOES JUST ABOUT EVERYTHING WE AS A CITY HAVE BEEN ASKING FOR..." –Portland Mayor Nathan Smith

Above: Walker Terrace, after
Left: Walker Terrace, before

Previous page: Top: Walker Terrace Sidewalk Gallery
Bottom: Walker Terrace interior

"THIS IS AN AWESOME PROJECT FOR DOWNTOWN." –Sylvia Von Aulock, Town Planner
Exeter News-Letter 2/22/05

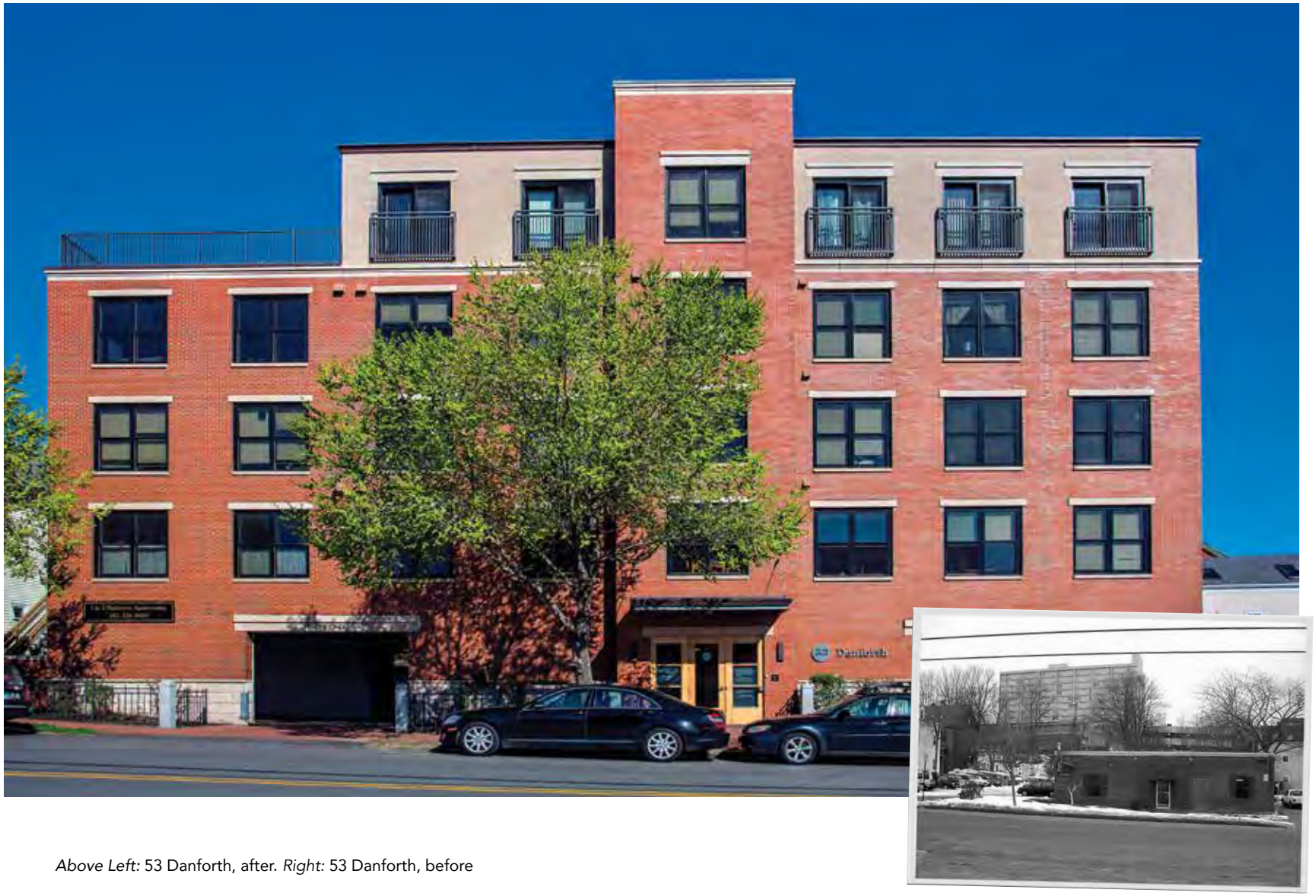
THE SQUAMSCOTT BLOCK addresses the severe lack of affordable rental housing in Seacoast New Hampshire; adds vitality to Exeter's downtown district; fills a gap in the streetscape of one of Exeter's most important and beautiful streets; and promotes smart growth by adding density near public infrastructure.

Previously a surface parking lot next to Exeter's historic 1856 Town Hall, the Squamscott Block is on the site of two historic structures torn down in the mid-20th century to make way for parking. The four-story building features 2,600 square feet of retail space along busy Water Street, currently housing an art gallery and a therapeutic salt cave. Two hidden levels of parking provide 36 spaces for the residents and 58 spaces for neighboring businesses.

YEAR COMPLETED: 2007
UNITS: 30 (14 Market-Rate + 16 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: North Branch Construction
FINANCING: New Hampshire Housing; the Town of Exeter, New Hampshire; the New Hampshire Community Development Finance Authority; TD Bank; Unitil; and HUD.

53 DANFORTH

53 DANFORTH STREET, PORTLAND, MAINE



Above Left: 53 Danforth, after. *Right:* 53 Danforth, before

"THE BUILDING AT 53 DANFORTH STREET WILL HELP MAKE PORTLAND THE MOST LIVABLE CITY IN AMERICA." –Portland Mayor Jill Duson, *Portland Press Herald* 8/13/09

53 DANFORTH is located in the heart of the Portland Peninsula, a few blocks from downtown, the Arts District, the Old Port, the West End, and the Waterfront. It replaced a 50 year-old one-story garage and gravel parking lot. It includes 35 one-bedroom apartments, 8 two-bedroom apartments, and covered on-site parking. Many of the units boast views of Portland's harbor and downtown Portland. This was our first project to include solar energy.

YEAR COMPLETED: 2009
UNITS: 43 (13 Market-Rate + 30 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Wright-Ryan Construction
FINANCING: MaineHousing; TD Bank;
and the City of Portland, Maine.

Above: 53 Danforth interior
Bottom: Rooftop solar panels, 53 Danforth

THE MILL AT SACO FALLS

100 SACO FALLS WAY, BIDDEFORD, MAINE

THE MILL AT SACO FALLS is an adaptive re-use of an 1845 textile mill building adjacent to the Saco River falls in Biddeford. It is a key component of the Biddeford Mill District renaissance—from a collection of aging industrial buildings to a vibrant, mixed-use neighborhood featuring public access to the Saco River.

Features of the project include magnificent views of the Saco River and falls, and a short walk to both the Amtrak station on Saco Island and Biddeford's historic downtown. Residents enjoy a fitness center, outdoor play area, home theater room, and community room with computers.

YEAR COMPLETED: 2010
UNITS: 66 (26 Market-Rate + 40 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Wright-Ryan Construction
FINANCING: MaineHousing; TD Bank; HUD; Northern New England Housing Investment Fund; the City of Biddeford; and The America Recovery and Reinvestment Act of 2009.

"THE PROPERTY WILL BE A PHENOMENAL ASSET TO THE CITY AND REFLECTS THE COMMUNITY'S WORKING MILL TRADITION." –City Council President Bob Mills, *The Courier* 1/28/10

Above: The Mill at Saco Falls, after
Left: The Mill at Saco Falls, before

Previous Page: Left: The Mill at Saco Falls corridor with mill artifact steel door
Right: The Mill at Saco Falls interior

THE LOFTS AT BATES MILL

36 CHESTNUT STREET, LEWISTON, MAINE

Bottom Left: The Lofts at Bates Mill, west facade and Fountain Park, before
Above: Same view, after renovations

Facing page:
*Top: T*he Lofts at Bates Mill entrance
Bottom: Lobby with display of historic artifacts

"THE QUALITY HOUSING IS AN ESSENTIAL COMPONENT OF THE DOWNTOWN REVITALIZATION." –Mayor Bob MacDonald at his Grand Opening speech

THE LOFTS AT BATES MILL, the Szanton Company's first Lewiston project, is the adaptive re-use of an 1854 Bates Manufacturing Company textile mill, Mill #2. The Lofts at Bates Mill features 25 one-bedroom, 16 two-bedroom, and 7 three-bedroom apartments. The Lofts at Bates Mill is the first apartment housing built in Lewiston's Mill District.

The project completely transformed the west facade of this classic red-brick mill structure. Features of the project include 13-foot ceilings, exposed timber framing, large windows with abundant natural light, and an expansive view across Fountain Park and the Bates Mill Complex to the Androscoggin River. The project is a short three-block walk to the services in downtown Lewiston and is on a local bus line. Residents enjoy complimentary wi-fi, fitness center and spacious community room with computer.

YEAR COMPLETED: 2012
UNITS: 48 (15 Market-Rate + 33 Income-Restricted)
ARCHITECT: Platz Associates
CONSTRUCTION MANAGER: Platz Associates
FINANCING: MaineHousing, The City of Lewiston, People's United Bank, Hunt Capital Partners, and Maine Preservation.

THE LOFTS AT SACO FALLS

75 SACO FALLS WAY, BIDDEFORD, MAINE

Right: The Lofts at Saco Falls, before
Above: Completed project

Facing Page:
The Lofts at Saco Falls renovated interiors

"IT'S A THRILL TO SEE OLD MILL BUILDINGS BEING RENOVATED.....TODAY WE LOOK AT MILLS AS BEING SPECIAL, ARCHITECTURALLY AND EVEN CULTURALLY."

—Mayor Alan Casavant at his Groundbreaking speech

THE LOFTS AT SACO FALLS is the newest in a series of adaptive re-use projects which The Szanton Company began in 2010. It consists of two connected buildings, built in 1842 and 1867, totaling 92,000 square feet and sitting directly adjacent to our 2010 project, The Mill at Saco Falls.

The Lofts offers 80 (mostly 1-bedroom) apartments, as well as a landscaped courtyard, fitness center, waterfront park next door, and a short walk to downtown Biddeford and Saco. It also includes the features typical of historic New England mill buildings: high ceilings, large windows, revealed brick and exposed timber framing.

YEAR COMPLETED: 2016
UNITS: 80 (14 Market-Rate + 66 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Wright-Ryan Construction
FINANCING: MaineHousing; Northern New England Housing Investment Fund; People's United Bank; Coastal Enterprises; Genesis Fund; City of Biddeford; Southern Maine Planning and Development Commission.

HUSE SCHOOL APARTMENTS

39 ANDREWS ROAD, BATH, MAINE

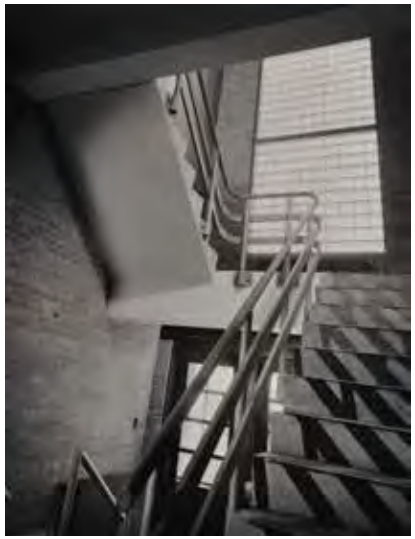
HUSE SCHOOL APARTMENTS involved the renovation and rehabilitation of the former John E.L. Huse Memorial School, built in 1942 and 1949. We re-purposed this elementary school to create 31 apartments and added a new construction wing with 28 apartments, for a total of 59 units.

The existing building was restored to its original 1942 appearance, designed by notable Maine architect and Bath native, Alonzo Harriman. Included are new windows consistent with the originals, restored masonry, and new signage which reproduced the original distinctive design. The apartments in the existing building feature original wood floors, high ceilings, and large windows with abundant natural light. Building amenities include wi-fi, fitness center, community room, and secure bike storage.

The Huse School Apartments are located steps from the modern YMCA, the 5-mile Whiskeag Trail, and a short walk to downtown Bath with its variety of shops, restaurants, library and more.

Above: Renovated Huse School gym

Right: Original design elements such as this stairwell have been maintained in the revovated space.



YEAR COMPLETED: 2017
UNITS: 59 (16 Market-Rate + 43 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Zachau Construction
FINANCING: MaineHousing; Northern New England Housing Investment Fund; Bangor Savings Bank; Coastal Enterprises; Maine Department of Economic and Community Development.

"THE PROJECT PROTECTS AND SAVES THIS HISTORICAL BUILDING...AND WILL PROVIDE PROPERTY TAX REVENUES FOR THE CITY..." –Lorena Coffin, Director of Sagadahoc Preservation Inc.

Top: Huse School Apartments
Above: Before renovation
Left: Interior of renovated Huse School apartment

THE HARTLEY BLOCK

155 LISBON STREET, LEWISTON, MAINE

Above: The Hartley Block
Left: Historic images of same location

Facing Page Top: The Hartley Block façade
Facing Page Bottom: Before construction

"WE ARE THRILLED THAT THE SZANTON COMPANY WILL BE REINFORCING OUR DOWNTOWN HISTORIC AND COMMERCIAL CORRIDOR BY BUILDING THIS IMPORTANT PROJECT."

—Lewiston Mayor Shane Bouchard

THE HARTLEY BLOCK brings new life to a prominent 175' x 100' empty lot on downtown Lewiston's Lisbon Street. In 2004 and 2006, four connected historic buildings on Lisbon Street suffered extensive fire damage and were condemned and demolished, leaving a gaping hole in the city's most iconic street. One of the buildings was the site of the 1906 art studio of Marsden Hartley, an important early modern American painter born and raised in Lewiston.

A mixed-use, mixed-income project, The Hartley Block features 63 apartments aimed at a diversity of income groups and 4,000 sq. ft. of retail space along Lisbon Street. The project includes a fitness center, community room, children's playroom, dedicated bike storage, wi-fi and covered parking directly behind the building. The site is within easy walking distance of the public library (across the street), shops, restaurants, cafes, and two major parks.

This project adds momentum to downtown Lewiston's resurgence, including street-level public art at the entrance. Two 9-foot mosaic tile works, after Marsden Hartley paintings, animate its façade.

YEAR COMPLETED: 2019
UNITS: 63 (22 Market-Rate + 41 Income-Restricted)
ARCHITECT: Platz Associates
CONSTRUCTION MANAGER: Hebert Construction
FINANCING: MaineHousing; TD Bank; Northern New England Housing Investment Fund; City of Lewiston.

48 HAMPSHIRE

48 HAMPSHIRE STREET, AUBURN, MAINE

Located at the corner of Hampshire and Troy Streets, 48 HAMPSHIRE will aid the revitalization of downtown Auburn's important Hampshire Street corridor by bringing 53 high-quality new apartments to the neighborhood.

These will be a mixture of one, two and three-bedroom units, varying in size from 590-950 square feet. Included in the rent are heat and hot water, off-street parking, wi-fi, fitness center, community room and indoor bike storage.

48 Hampshire is located within easy walking distance of the public library, YMCA, shops, restaurants, grocery store, drugstores, and all the amenities of downtown Auburn.

The Szanton Company broke ground in March 2019 and expects to open to residents in April 2020.

Above: Rendering of completed project
Left: Same location, prior to construction

"We are looking forward to watching yet another major construction project in our downtown take shape — one that will provide quality workforce housing, inject capital into our local economy, and enhance the image of Auburn as we become the best small city in New England"

—Auburn Mayor Jason Levesque

Above: Rendering of East elevation

PROJECTED COMPLETION: 2020
UNITS: 53 (11 Market-Rate + 42 Income-Restricted)
ARCHITECT: Platz Associates
CONSTRUCTION MANAGER: Benchmark Construction
FINANCING: MaineHousing; Boston Financial;
NBT Bank; City of Auburn.

THE FURMAN BLOCK

100 PARRIS STREET, PORTLAND, MAINE

Above: Rendering of completed project, from corner of Kennebec and Brattle Streets

Right: Before construction, Nathan Szanton and Amy Cullen on project site

"I THINK THIS IS THE NEXT BIG STEP IN CREATING A MULTI-USE NEIGHBORHOOD IN THIS PART OF BAYSIDE. IT'S PRETTY EXCITING TO GET THIS MOVING."

—Portland City Councilor David Brenerman

THE FURMAN BLOCK is The Szanton Company's first mixed-income project specifically for seniors, ages 55 and over. Located in the heart of Portland's West Bayside neighborhood, it's a short walk to Whole Foods and Trader Joe's, small restaurants and delis, the 3.5 mile trail that loops around Back Cove and a few blocks from downtown Congress Street's arts, business, and shopping district.

The property will feature 46 1-bedroom and five studio apartments. Some residents will have water views of Back Cove; others will enjoy views of Deering Oaks Park or Portland's downtown. All will have abundant natural light. Included in rent are heat and hot water, a fitness center, indoor bike storage and wi-fi. The property also features a community room and coin-op laundry. The street-level commercial space, to be owned and managed by Ross Furman, will be a combination of artists' studios and gallery space.

Repurposing an empty gravel lot at the corner of Parris and Kennebec Streets, The Furman Block contributes to the revitalization of this former industrial neighborhood.

PROJECTED COMPLETION: 2020
UNITS: 51 (11 Market-Rate + 40 Income-Restricted)
ARCHITECT: Archetype, P.A.
CONSTRUCTION MANAGER: Hebert Construction
FINANCING: MaineHousing; Northern New England Housing Investment Fund; City of Portland.

Above: Rendering of completed project, from corner of Kennebec and Parris Streets

REFERENCES

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Maine Cooperative Development Partners

MAINE COOPERATIVE DEVELOPMENT PARTNERS build neighborhoods where the elements that constitute quality of life—access to green space, healthy lifestyles, community, privacy, and affordability—are not at odds with each other. Grounding principles for this work are creating equitable communities; complementing walkable neighborhoods; building healthy buildings; and celebrating beauty, art, and the natural environment. We use Limited Equity Cooperatives as a form of ownership to create options for people of all ages, backgrounds, and incomes to live in harmony with nature and their neighbors.

WE ENVISION small towns, urban neighborhoods, and suburban neighborhood centers that are walkable to daily needs and adjacent to recreational facilities, trails, and transit corridors; homes that use energy efficient construction, and shared gardens, patios, and play spaces for people to get to know and enjoy their neighbors.

WE GIVE BACK by partnering with organizations that support trails and green space, transit, local businesses, social equity, and efforts to mainstream energy efficient building and land use.

PRINCIPALS

MATTHEW PETERS has been involved in the completion of over 20 new construction, major rehab, and acquisition deals. Matt worked for eight years at Avesta Housing, one of Northern New England's largest non-profit housing developers and owners, project managing affordable housing developments, building out and overseeing the Asset Management department, and ending in an executive role overseeing the entire development and acquisitions pipeline as Vice President of Real Estate Services. In 2018 he began to consult for Housing Authorities, housing non-profits, and Community Development Finance Institutions in Maine supporting these organizations in acquisition, ground-up development, and underwriting of affordable housing properties. Matt also is the Executive Director of Freeport Housing Trust based in Freeport, Maine. He has strong working relationships with MaineHousing, Rural Development, lenders, tax credit syndicators, and other professionals in the design and construction field, holds a Masters in Urban Planning from the University of Washington, and certifications such as Spectrum's C3P and Rural Development STAR trainings and LEED Accredited Professional.

BRIAN ENG is a real estate investor who has worked on commercial projects in Florida, Connecticut, New Jersey, and Maine. He has worked as a principal on developments of over 200 units, is a principal on redeveloping the MERC site in Biddeford, and has redeveloped several smaller properties in Portland. He brings strong expertise in financials, fundraising, advocacy, and public speaking. He grew up in a co-op in New York City, and is on the board of UHAB, the entity that manages 20,000 units of cooperative housing in New York.

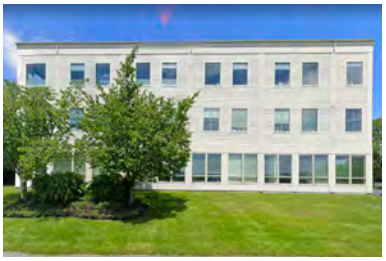
LIZ TRICE is a policy professional who builds multidisciplinary partnerships across real estate, economic development, entrepreneurship, and public health. Liz holds a masters degree in Public Policy & Management with a certificate in Community Planning & Development from the Muskie School at the University of Southern Maine. She has worked on multi-unit projects in Portland to obtain zone changes, lead the public engagement process with neighboring residents and businesses, apply for TIFs and grants, and direct the design of shared spaces. Her work includes award-winning research on the regulatory barriers to people living alone achieving home ownership, leading the process to redesign Bramhall Square, and working with medical and economic development institutions to develop strategic plans. Her projects to re-envision urban spaces for livability and natural ecosystems won two of three awards given by the 2019 Portland Society of Architecture's Complete City Competition. Liz trained as a cohousing developer and Passive House Design Consultant and has visited over 20 cohousing developments in the United States. She is currently the owner of PelotonLabs, a coworking space in Portland.

PROJECTS

M NORTH ORLANDO—As a principal of Clay Cove Capital, Brian was the control capital partner in the ground-up development of M North in Orlando, a $37.1M, 288-unit multifamily development in Orlando, Florida. www.mnorthorlando.com

BIDDEFORD MERC REDEVELOPMENT Brian worked with Jim Brady of Fathom Companies, to serve as master developer of city-owned land on the former Maine Energy Recovery Corp. incinerator through a public-private partnership with the City of Biddeford.

6 CITY CENTER IN PORTLAND—Brian redeveloped and retenanted a largely vacant Old Port mixed use building including executive office suites. www.sixcitycenter.com, and bringing in a law firm condo, law firm tenant, Lio Restaurant, and HE Paintbar nail salon.

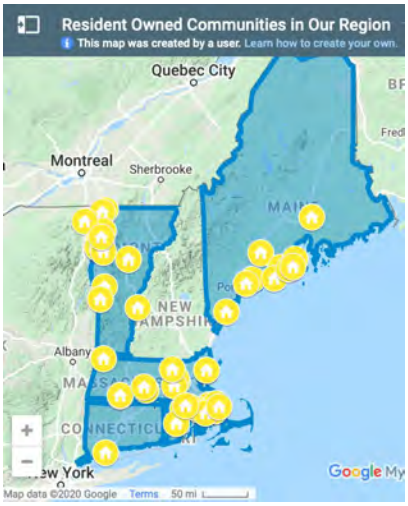


1685 CONGRESS IN PORTLAND—Brian redeveloped a 50% vacant office/medical building and retenanted it including Maine Plastic Surgery Center and Maxim Healthcare. www.maineplasticsurgery.com

645 CONGRESS STREET—This former downtown college dormitory was converted to 55 one-bedroom and studio apartments with retail on the first floor. Liz worked for developers Shinberg and Alfond on the initial concept, conducted a market analysis, developed relationships and communication with neighbors and businesses, creating a bike storage and parking plan, created a community management plan, and assisted with lease-up.

The Cooperative Development Institute (CDI) is a regional 501(c)3 non-profit founded in 1994 by co-op leaders in the Northeast. CDI's mission is to build a cooperative economy through the creation and development of successful cooperative enterprises. We are transforming ownership of our economy, so all people can meet their basic needs. CDI has 30 staff across the Northeast including six staff members in Southern Maine.

New England Resident Owned Community Projects (NEROC)



One of our primary activities is creating cooperative housing in Maine and the Northeast. When a park is for sale we help residents form a cooperative, get financing to buy the park, and learn how to run it with democratic resident control. This program gives residents control of the land beneath their homes and protects the affordability of their housing.

The Resident Owned Community (ROC) model began in NH with the NH Community Loan Fund and became a national model with the formation of ROC USA in 2008. The program has helped people in over 50 parks – comprising more than 4,800 homes — convert to resident ownership. Those communities are part of the ROC USA Network, which has helped secure over 15,000 units of affordable housing nation-wide. CDI provides ongoing support as trainers and advisers for the ROCs and other cooperatives in the region. We assist in governance, management, financial oversight, communications, conflict resolution, compliance, and securing financing.

Charter Oaks Village Cooperative

With the support and technical assistance of the Cooperative Development Institute (CDI), the residents of Charter Oaks Village acquired the land on the 40 unit Arundel manufactured housing park on June 11, 2019 for $1,170,000, helping to preserve the affordable housing community within it.

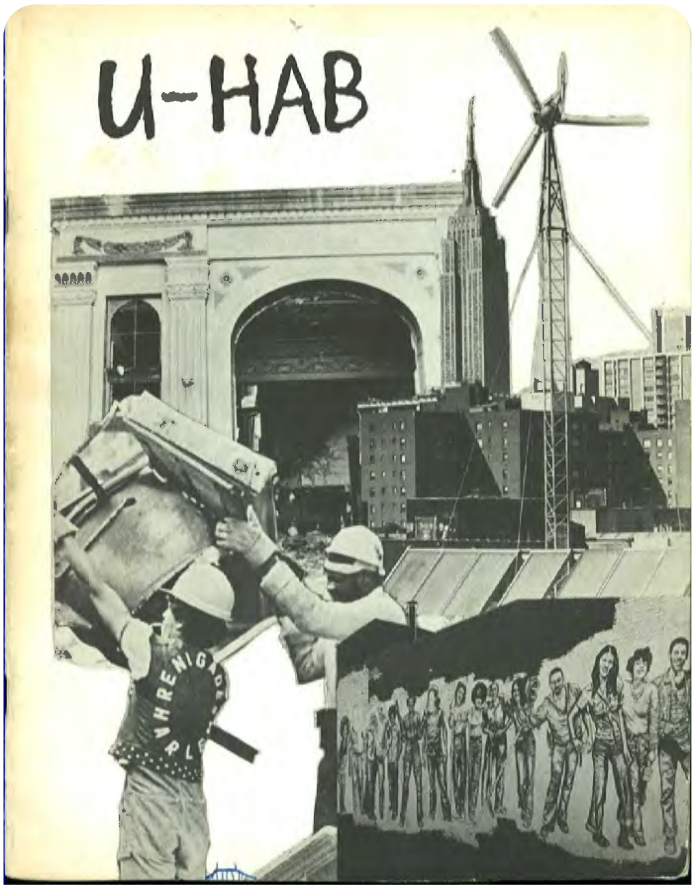
Charter Oaks Village joins nine other Maine manufactured housing communities supported by CDI and financed by Genesis Community Loan Fund, representing 440 homes now under resident control. The newly formed housing cooperative was a recipient of a GrowSmart Maine's honorary 2019 Smart Growth Award.

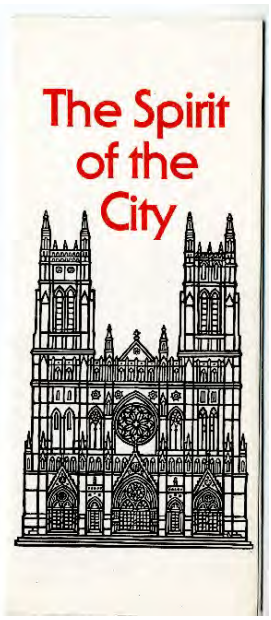
Mountainside Community Cooperative

CDI's newest Maine Cooperative is the 52-unit Mountainside Community Cooperative in Camden, Maine. Securing affordable housing in a community like Camden is increasingly challenging as housing costs escalate and its population ages. The residents of Mountainside Community purchased the community on December 11, 2019 for $1,900,000 with financing provided by Camden National Bank, Genesis Community Loan Fund and the Local Enterprise Assistance Fund. "We are so pleased to be able to help the residents of the Mountainside Community Cooperative become property owners today," said Bill Floyd, Executive Director of the Genesis Fund.

Wardtown Mobile Home Cooperative

The residents of the 60-unit Wardtown Mobile Home Cooperative voted to form the cooperative and purchase the community in May 2015, with assistance from CDI, and combined financing from Maine State Housing and The Genesis Community Loan Fund. As with all of the CDI's Resident Owned Communities (ROCs), Wardtown members continue to engage in extensive training and organizational development. As Bill Hodgkins, Cooperative Treasurer explains, "We all gained valuable new skill sets as we went through the process of establishing and financing our cooperative...Now we have a very strong board of directors and feel very organized, to the point we are able to assist other ROC mobile home parks with advice about the process."





2019 UHAB ANNUAL REPORT

Building for Us

This year, UHAB made a considerable effort to build an archive. In doing so, the lesson we learned from decades of growth is very simple: what has always mattered most for affordable housing is community. It is the strength and support that comes from the community inside a co-op that is just as essential as the affordable housing itself.

With this in mind, UHAB is proud to offer new and expanded programs to low-income homeowners with a refined lens on our work. We have more data and research than ever on the long-term impacts of redlining policies and how communities of color have been resilient in their efforts to remain in their homes, whether in the 1970s or today. By building new affordable co-ops, strengthening tenants' rights statewide, making share loans through our HomeOwnership Lending program, and working in cooperation with our Interboro Community Land Trust partners to create the first Citywide CLT in New York City, we are actively working to dismantle the detrimental legacies of redlining and community disinvestment.

As we look toward the future, our work is expanding in several ways. We are offering more services like Co-ops Go Solar and our energy programs that are tackling the most pressing issue of our lifetime: the climate crisis. Without renewable energy and carbon reduction, low-income residents more than anyone will be affected. Most importantly, we need to recognize that it is not just low-income communities, but people of color in particular who are disproportionately affected by this crisis, just as they have been marginalized from fair and stable housing. UHAB's CDFI, HomeOwnership Lending, helps ensure that a family is not denied the opportunity to purchase because they don't have the money to be an all cash buyer. This program makes small loans where other lenders are reluctant and in this way supporting our HDFC and Mitchell Lama co-op communities in continuing to provide affordable housing.

The interest in co-ops and our work is expanding not just in New York City, but in upstate New York where residents can securely remain in their mobile homes; to New Haven, CT where the nearly 50-year old Seabury Co-op struggles to keep up with its aging infrastructure; and to Seattle, WA where a new permanently affordable co-op is being created. UHAB is excited to be assisting a new City financed co-op development program in Oakland, CA and we continue to meet with organizations and officials in other cities who are seriously considering the limited-equity model.

We have come a long way and welcome our next chapter of growth.

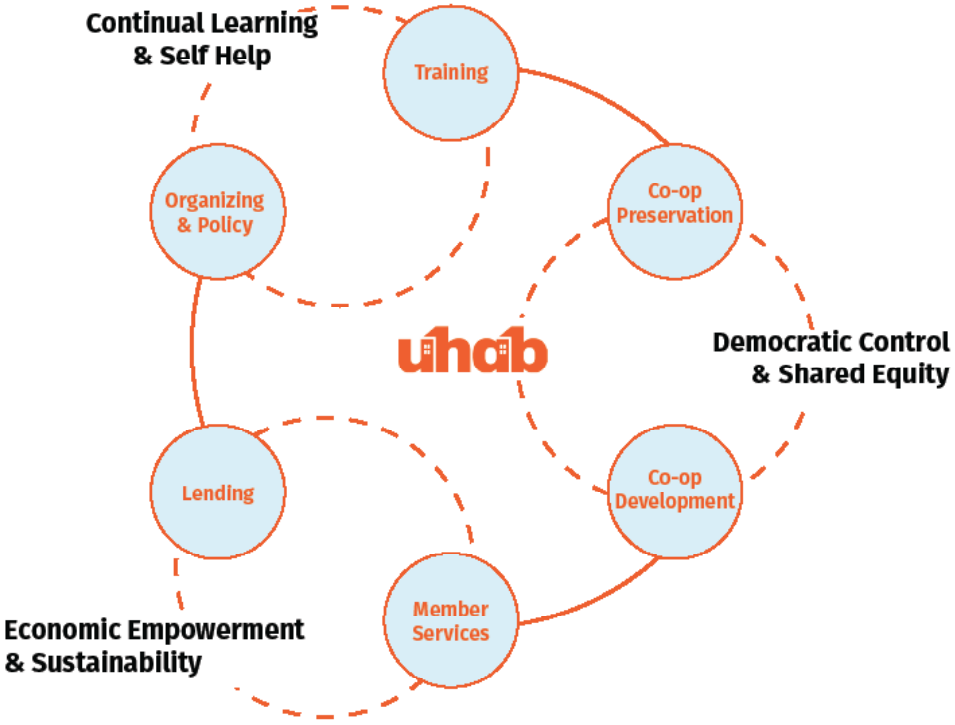
Sincerely,

Andrew Reicher, Executive Director

Community through Cooperation

UHAB empowers low- to moderate-income residents to take control of their housing and enhance communities by creating strong tenant associations and lasting affordable co-ops.

Our Principles



I. Continual Learning & Self Help

When residents take the lead on everything from creating, managing, and preserving their own co-ops to advocating for affordable housing policy reform, this not only improves buildings and neighborhoods, but it transforms lives as well. Ongoing education and training is the key to preserving affordable housing cooperatives and strong tenant associations.

II. Democratic Residential Control & Shared Equity

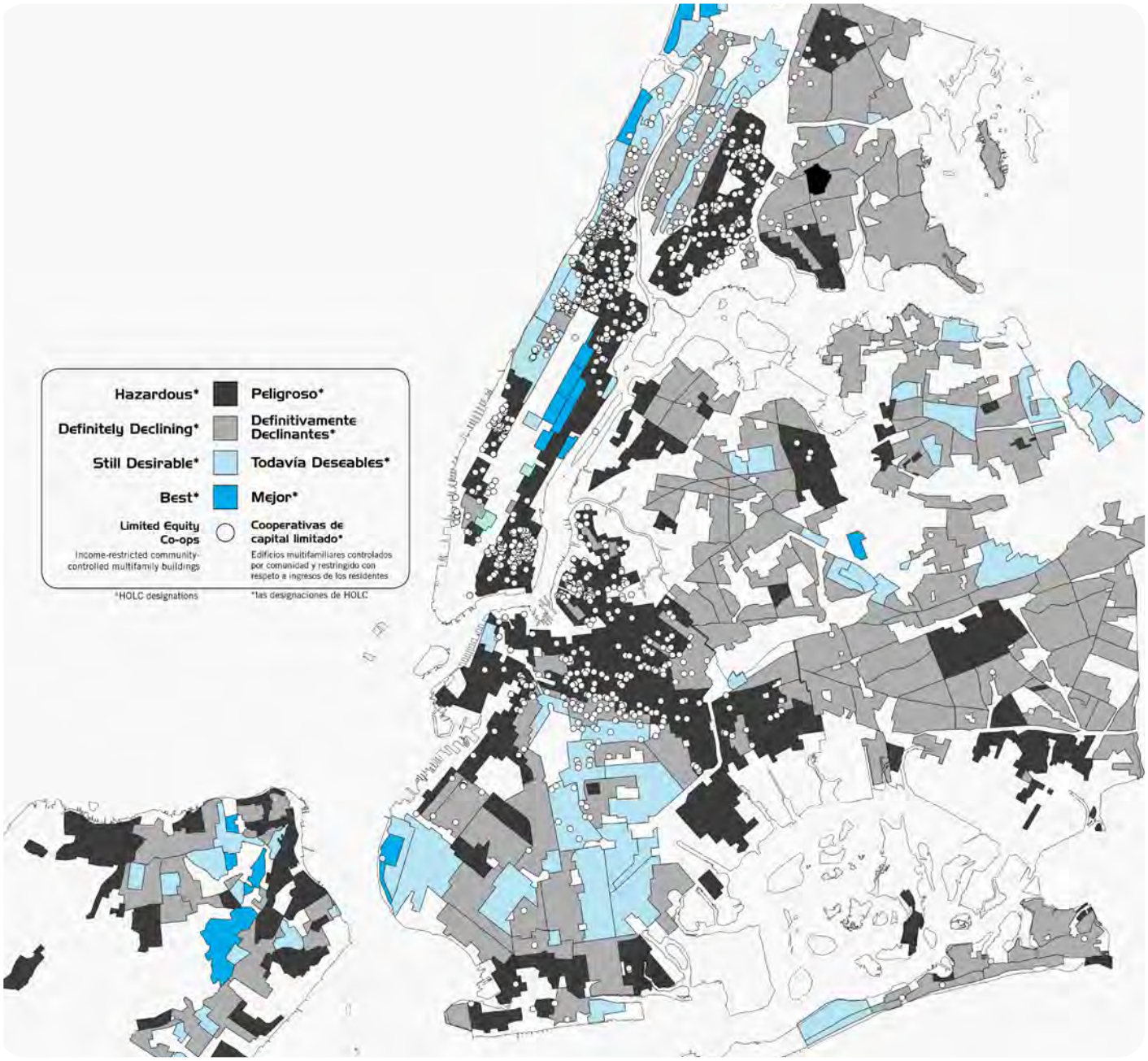
Transparent leadership and the participation of a majority of residents—each contributing unique skills and perspectives—make democratic governing and organizing possible. This collective control of housing helps prioritize a shared equity that keeps affordabiilty manageable for future incoming residents.

III. Economic Empowerment & Sustainability

UHAB provides access to affordable, high-quality resources covering areas of energy, finance, democratic participation and education. These tools help residents maintain lower costs of living while helping to demystify financial technicalities. With support and guidance, all residents should be able to read and manage their finances, in order to make informed decisions about their operating costs.

Housing Justice is Racial Justice

This map overlays the location of modern-day HDFC co-ops with redlined neighborhoods from the 1930s. Redlining was a discriminatory housing practice that devalued neighborhoods where people of color lived and made it difficult for people of color to secure safe, affordable housing. In this map, the deepest shade of grey represents the least economically desirable neighborhoods. In the 1970s and 1980s, landlord abandonment and arson led to City foreclosure on thousands of occupied buildings in these same neighborhoods, creating the conditions for the self-help housing movement and the creation of thousands of HDFCs.



Through organizing and self-help initiatives, community-controlled housing arose as a way for low-income people and people of color to take control of their housing solutions when the government and private sector would not. Today, neighborhoods like Harlem, the South Bronx, and Central Brooklyn still struggle with the legacy of redlining; high air pollution, increased heat waves, higher poverty rates, and gentrification all threaten to displace longtime residents from neighborhoods that were once widely abandoned.

Through it all, community control remains a tool to provide New Yorkers with decent, affordable housing. HDFC co-ops are anchors in their neighborhoods, providing a safe haven to raise families and age in place. Tenant unions build power among renters and win victories like stronger rent laws.

Through our work, UHAB helps people of color control, manage, and improve their homes. We know from experience that most of the low- to moderate- income residents in the buildings we serve are Black or Latinx. Our goal is to have as many people from the communities we serve reflected in our organization's leadership and programs.

Currently, around 60% of our Board and program staff are people of color, and more than half of our organization is bilingual in English and Spanish, fulfilling an essential need for our Spanish-speaking HDFC board members and residents. We provide our technical assistance, homeownership advisement, energy advisement, bookkeeping services, quarterly newsletter, and entire training curriculum in both English and Spanish.

UHAB BY THE NUMBERS: 2019

125 fair elections monitored in practice of democratic community control

3,500,000 tenants protected under stronger rent laws

9 HDFCs adopted solar, bringing the total number to **28**

5 affordable homeowner-ship loans totaling **$242,011**

115 budgets planned to preserve HDFCs' financial stability & affordability

203 trainings for affordable co-op residents

$9,197,000 secured in loans to help HDFCs make capital improvements

Our Co-op Preservation team helped **15 co-ops** secure necessary loans to avoid City foreclosure last year.

This represents over **350 families** that were able to retain their equity and control of their homes through technical assistance and guidance from UHAB staff.

To date, UHAB is the foremost developer of limited-equity housing co-ops in NYC. we have developed **over 1,300 units** of affordable housing with the support of a variety of City and State programs.

FIRM BIO

ACETO LANDSCAPE ARCHITECTS

ALA is a process-driven, landscape architecture and urban design firm ommi ed to thoughtful, c eati e intervention t the intersection of e vironment, economics, art, and culture. ALA was founded on the notion that great design is a product of careful listening, inclusive decision-making, and unrelenting passion for enduring built spaces. We believe landscape architecture lies at the nexus of the built form and the ephemeral qualities of an ever-changing environment. ALA's team o ers a unique set of skills and perspecti e, well-equipped to harmonize and reconcile the roles and value systems of varied design disciplines. We integrate expertise and intuition o craft p werful places, built upon a commitment to resiliency and sustainability. Our studio's passion for craft and echnical savvy a ords us the opportunity to collaborate across a broad geographic range and myriad project scales from intim te private spaces to large-tract master plans.

ALA was founded in 2014 by Principal, Nick Aceto. ALA has 5 employees, all of which are landscape architects, licensed in the states of Maine, Massachusetts, N w York and Colorado.

PROJECT TEAM KEY PERSONNEL

NICK ACETO, PLA, ASLA

ACETO LANDSCAPE ARCHITECTS
FOUNDING PARTNER, LANDSCAPE ARCHITECT | NA@ACETOLA.COM

Nick is a licensed landscape architect and urban designer with a deep passion for the creati e process. Nick believes in landscape as a framework for organizing the pa erns and behaviors through which we live. From the private garden to the region, Nick has the ability to recognize and translate pa erns into visual narrati es which tell the unique story of a place through built form. Nick grew up in Portland, Maine where he developed an deep appreciation or the rich and varied New England landscape, from rocky shorelines of the Atlantic o the forested peaks of the Appalachians. As both a consummate urbanist and adventure-seeking outdoorsman, Nick is intrigued by the interplay between urban form, economics, wild nature, and ecology.

CAITLIN ACETO, PLA, ASLA

ACETO LANDSCAPE ARCHITECTS
FOUNDING PARTNER, LANDSCAPE ARCHITECT | CA@ACETOLA.COM

Caitlin is a licensed landscape architect in the states of Maine, New Hampshire, and Colorado, who's passion for art and design began in the Chicagoland area where she was exposed to the architectural works of Frank Lloyd Wright and Olmsted's historic planned community of Riverside. Caitlin's project experience ranges in scale from circulation and ayfinding design t Grand Canyon National ark, to security barrier conceptualization or the Thomas Je erson Memorial, to signage programming and design. Caitlin brings a distilled clarity o design that strives to embody the contextual heritage, textural richness and cultural integrity of place.

SETH KIMBALL, PLA, ASLA

ACETO LANDSCAPE ARCHITECTS
PRINCIPAL, LANDSCAPE ARCHITECT | SK@ACETOLA.COM

Seth has been practicing Lands ape Architecture for over 15 years. He has a Bachelor's degree in Landscape Architecture from the University of Massachusetts Amhe st. Seth's project experience includes serving as project manager/lead designer for a master plan for the new Al Guhair University in Dubai, the Al Ain Oasis Cultural Quarter Master Plan in Abu Dhabi, institutional xperience including Phillips Andover Academy, Bates College, George Stevens Academy, and Southern New Hampshire University, and a range of residential p oject including homes in Texas, Idaho, Montana, New York, Arizona, and several throughout the northeast. Seth joined ALA in 2018, bringing to the practice his experience in civic, institutional, and esidential p ojects. further ALA's commitment to achieve sustainable and resilient project outcomes.

LIST OF SELECT CURRENT & ONGOING OR COMPLETED ALA PROJECTS

ALA has been fortunate to have made meaningful contributions o a vast array of projects across a wide gamut of scales over the last 5-6 years. Below is an abbreviated list of select project examples intended to provide a sense of our professional skill set, experience, and range as a design studio. We would be happy to provide more information about a y of the below projects upon request.

RESIDENTIAL

DBX 11 RESIDENCE	ASPEN, CO
WHITE HORSE SPRINGS RESIDENCE	ASPEN, CO
TELLURIDE AGUIRRE ROAD RESIDENCE	TELLURIDE, CO
PRIVATE RESIDENCE	SOUTH FREEPORT, ME
SHADOW MOUNTAIN CONDOMINIUMS	ASPEN, CO
SMYTH RESIDENCE	SNOWMASS, CO

COMMERCIAL/CAMPUS

100 FORE STREET OFFICE BUILDING	PORTLAND, ME
66 STATE STREET	PORTLAND, ME
LAAM 525 LIVE-WORK	BASALT, CO
HOTEL ASPEN	ASPEN, CO
MEMORIAL PLAZA	QUANTICO, VA
CUMBERLAND CLUB SITE PLAN	PORTLAND, ME
RIVERSIDE LIVE-WORK	PORTLAND, ME
WILLITS BEND LIVE-WORK	BASALT, CO
RED HAWK ELEMENTARY SCHOOL	ERIE, CO
CSU UNDERPASS STUDY	FORT COLLINS, CO
ANDERSON RANCH ARTS CAMPUS	SNOWMASS VILLAGE, CO

HOUSING & DEVELOPMENT

SCARBOROUGH DOWNS MASTER PLAN	SCARBOROUGH, ME
THE TREE FARM	BASALT CO
66 STATE STREET	PORTLAND, ME
BLOCK 11 MASTER PLAN	BRECKENRIDGE, CO
BROKEN COMPASS BREWERY	BRECKENRIDGE, CO
RIVERBEND COMMERCIAL CENTER	TIMNATH, CO
CUMBERLAND MULTI-GEN	CUMBERLAND, ME

PUBLIC

COMMERCIAL STREET TRANS. STUDY	PORTLAND, ME
LIBBYTOWN PLAYSCAPE	PORTLAND, ME
PORTLAND DOWNTOWN SQUARE	PORTLAND, ME
BASALT POST SIGNAGE	BASALT, CO
TOWN WAYFINDING SIGNAGE	BASALT, CO
BAYSIDE ADAPTS MASTER PLAN	PORTLAND, ME
ARBANEY PARK MASTER PLAN	BASALT, CO
BASALT OUR TOWN	BASALT, CO
TIMNATH COMMUNITY PARK	TIMNATH, CO
PACTS SMART CORRIDOR STUDY	PORTLAND, ME
LIBBYTOWN VISIONING	PORTLAND, ME
BERTHOUD PARKS & OPEN SPACE PLAN	BERTHOUD, CO

REFERENCES

CAITLIN CAMERON
CITY OF PORTLAND, URBAN DESIGNER
207-874-8901
CCAMERON@PORTLANDMAINE.GOV

"In my capacity as Urban Designer for the City of Portland, I interacted with Aceto Landscape Architects (ALA) on the 100 Fore Street project where they demonstrated thoughtful and c eati e design strategies for a challenging urban site. Speaking from my experience working with a diversity of landscape and urban design professionals in Southern Maine, I found ALA to have an innovati e approach that demonstrates a value for and understanding of the role of public space and urban landscape for the livability and resiliency of cities and owns." - Caitlin Cameron

BRUCE HYMAN
CITY OF PORTLAND. TRANSPORTATION PROGRAM MANAGER
207-874-8717
BHYMAN@PORTLANDMAINE.GOV

"Aceto Landscape Architecture's compelling graphics as part of the Portland-South Portland Smart Corridor Plan e ort in 2017 enabled the public to readily visualize the benefits and t ade-o s of various transportation al ernati es being considered and highlighted the opportunities those al ernati es could also have for placemaking, a key goal of the Plan."- Bruce Hyman

RICH CIECIUCH
PROJECT WORKSHOP
970-729-0126
RICH@PROJECT-WORKSHOP.COM

"ALA is a key design collaborator in our design build approach, helping to navigate complex approval issues, particip ting seamlessly in the i erati e design process that succeeds best when site attribu e identi ation and organization melds with building design oncepts. They are excellent listeners and always come back with creati e and unexpected solutions. Community and Neighbor impacts of a y development must be carefully contemplated and negoti ted to a successful outcome, and ALA has all the skills and experience to shape and illustrate how new projects relate to the existing abric of community and neighborhoods." - Rich Cieciuch

DAN BACON
DEVELOPMENT DIRECTOR MR.HOLDINGS
207.232.5154
DBACON@MR.HOLDINGS

JAY CHACE
PLANNING DIRECTOR, TOWN OF SCARBOROUGH
207-730-4042
JCHACE@SCARBOROUGHMAINE.ORG

MARK RUDOLF
PRINCIPAL / OWNER VELLUM ARCHITECTS
970 618 1889
MARK@VELLUMAD.COM

TROY MOON
CITY OF PORTLAND SUSTAINABILITY COORDINATOR
THM@PORTLANDMAINE.GOV
207.756.8362

THE DOWNS | 510-ACRE MASTER PLAN & TOWN CENTER

SCARBOROUGH ME

ALA has worked collaborati ely with Gorrill Palmer Consulting Enginee s along with a large team of consultants and stakeholders in developing a master plan for this 500+ acre former harness racing facility. The project was recently granted a TIF agreement based in large part on the attribu es ALA visualized in their plans for the proposed Town Center which included a 4 acre community park with music venue, playground, and sport courts.

KEY STAFF	Nick Aceto, Seth Kimball
SERVICES	Master Planning, Urban Design, Landscape Architecture, Visualizatio
STATUS	Planned
REFERENCE	Jay Chace, Planning Director, Town of Scarborough | Jchace@Scarboroughmaine.org

GRIST MILL NEIGHBORHOOD

SCARBOROUGH ME

ALA worked with closely with an experienced Southern Maine builder to develop a neighborhood plan which begins to challenge conventional subdivision de elopment rules with a compact pa ern and highly walkable streetscape organized around a central woodland preserve which serves as a neighborhood playscape.

KEY STAFF	Nick Aceto, Seth Kimball
SERVICES	Master Planning, Urban Design, Landscape Architecture, Visualizatio
STATUS	Completed Fall 2019
REFERENCE	Jay Chace, Planning Director, Town of Scarborough | Jchace@Scarboroughmaine.org

FRONTRUNNER PARK

SCARBOROUGH ME

This third phase of The Downs master plan includes over 200 homes across a broad range of a ordability inclu-diing compact, lane-loaded single family and pocket homes as well as more than 75 apartment units and ground floor office space. The plan is ganized around a series of small parks and a highly-walkable street grid.

KEY STAFF	Nick Aceto, Seth Kimball
SERVICES	Master Planning, Urban Design, Landscape Architecture, Visualizatio
STATUS	Permi ed, Expected Construction all 2020
REFERENCE	Jay Chace, Planning Director, Town of Scarborough | Jchace@Scarboroughmaine.org

LAAM 525

BASALT CO

Aceto Landscape Architects worked closely with architect, owner and contractor on this urban infill d velopment, providing creati e streetscape and urban plaza design interventions. The p oject included 8 a ordable residential units, 5,000 SF of ommerical / light industrial space, parking, and integration with the owns transit system.

KEY STAFF	Caitlin Aceto, Nick Aceto
SERVICES	Landscape Architecture, Urban Design
STATUS	Under Way Summer 2020
REFERENCE	Glenn Rappaport| grappa@blackshack.net

FREEPORT LIVE-WORK

FREEPORT ME

Freeport Live-Work is a community master plan envisioned as a series of mixed-density neighborhoods including more compact, single-family pocket homes as well as mixed-use townhomes and commercial-office buildings

KEY STAFF	Nick Aceto, Caitlin Aceto
SERVICES	Landscape Architecture, Urban Design, Planning
STATUS	Planned
REFERENCE	Undisclosed

BASALT ON-CALL PLANNING

BASALT CO

ALA was tasked with the study of two parcels within the Town of Basalt Growth Management Area for feasibility of alternati e 'a ainable' housing development options. ALA xplored options or pocket neighborhoods, compact lot scenarios, and consolidation of i frastructure as a means to o set development cost and in turn reduce home pricing.

KEY STAFF	Lisa Cowan, Caitlin Aceto
SERVICES	Landscape Architecture, Visualizatio
STATUS	Planning Document Complete 2016
REFERENCE	Undisclosed | Undisclosed

BRECKENRIDGE SUSTAINABLE COMMUNITY

BRECKENRIDGE CO

ALA provided master planning, urban design and landscape architecture services for the larger mixed-use community surrounding the Broken Compass Brewery site in Breckenridge, Colorado.

KEY STAFF	Nick Aceto, Caitlin Aceto
SERVICES	Landscape Architecture, Visualizatio
STATUS	On-Hold
REFERENCE	Rich Ciueciuch, Project Workshop

RAISE-OP | BLAKE STREET CHARETTE

LEWISTON ME

ALA worked collaborati ely with this Lewiston CO-OP via a series of chare es and workshops to help develop a plan for a new CO-OP building which could be replicated across a number of typical infill si es across Lewiston. Working with residents, ALA and BILD Architecture built consensus around parking, site utili ation, p ogram, and amenities.

KEY STAFF	Nick Aceto, Caitlin Aceto
SERVICES	Site Planning, Urban Design, Public Engagement
STATUS	Planned, On-Hold
REFERENCE	Craig Saddlemire, Evan Carroll

RAILROAD SQUARE LIVE-WORK

YARMOUTH ME

Situated on a former commercial shipping yard between an existing ailroad corridor and historic Main Street, Railroad Square is conceived as a compact, walkable, mixed-use residential ommunity which celebrates the sites hitoric commercial character while testing n w models for lving and working.

KEY STAFF	Nick Aceto, Caitlin Aceto
SERVICES	Landscape Architecture, Site Planning
STATUS	Planned
REFERENCE	Kevin Bunker, Alex Jaegerman

JAX SCHOONER HEAD EAST CO-HOUSING

BAR HARBOR, ME

The Jackson Laboratories is an institution with a long h tory in Bar Harbor and on eof the State of Maine's largest employers. ALA was tasked with developing a site inventory and analysis and conceptual master and site plans for employee and guest housing on a 36.5 acre parcel directly adjacent to the main campus.

KEY STAFF	Nick Aceto
SERVICES	Site Planning, Urban Design
STATUS	Planned, Under Way
REFERENCE	John Fitzpatrick

WILLITS BEND | LIVE-WORK COMMUNITY

BASALT CO

ALA has worked closely with Black Shack Office o develop plans and visualization or expansion of this live-work community in Basalt, CO. The community is comprised of 6 buildings with commercial, light-industrial space on the ground floor with enant-finish esidences above.

KEY STAFF	Nick Aceto
SERVICES	Master Planning, Urban Design, Landscape Architecture, Visualizatio
STATUS	Completed 2019
REFERENCE	Glenn Rappaport

LIBBYTOWN PLAYSCAPE

PORTLAND ME

ALA worked closely with the Libbytown Neighborhood Association o provide conceptual design and visuals for a new playground planned in Dougherty Field Park in Portland. Due in large part to ALA's imaginati e design in conjunction with the neighborhood associ tion s proposal, the project was awarded more than $130,000 in CDBG funding in 2018 through the competi e selection p ocess with the City of Portland.

KEY STAFF	Nick Aceto, Caitlin Aceto
SERVICES	Landscape Architecture, Visualizatio
STATUS	Under Way Summer 2020
REFERENCE	Ethan Hipple, Zack Barowitz

Blackstone Senior Living

Location: Falmouth, Maine

Completion Date: February 2018

Size: 15,000 square feet new

Program: 19 units new, 1-bedroom, and 2- bedroom apartments to Passive House performance levels; plus significant rehabilitation of 20 existing units

Cost: $185 / sf

Scope: New Construction and rehabilitation

Reference:

Catherine Elliott
Avesta Housing
(207) 553-7780
CElliott@avestahousing.org

ARCHETYPE
architects
48 Union Wharf | Portland, ME. 04101 | tel. 207.772.6022

www.archetype-architects.com

Company Background and History

Archetype Architects has, since 1983, developed an extensive portfolio of building projects in Maine and New England. We are a commercial architectural firm specializing in business, retail and housing developments. Our areas of service include master- planning, architectural design, and interior design. Prior to 1983 David Lloyd and Bill Hopkins maintained separate practices after having begun their careers in Boston and New York, respectively.

Archetype regularly designs and completes commercial projects in a very diverse field of typologies. Everything from hospitality and multi-family residential to offices and light industrial projects is well within our purview.

Personnel:

Principals:	David Lloyd William Hopkins
Architects:	David Mele Barry Yudaken Virginie Stanley Katherine Detmer James Broadbent
Architectural Associates:	Michael Hutchins Mike Coyne Devin Cough
Architectural Interns:	Maryna Nelson Sam Berry
Interior Designer:	Sally Anderson
Office Manager:	Susan Geffers

Registration Status:

Maine, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, RI and US Virgin Islands

Professional Affiliations:

National Council of Architectural Registration Board
International Building Code
National Fire Protection Association

RELATED PROJECT EXPERIENCE

Archetype has provided Design Services for the following residential projects.

Project & Location	Type of Project	Client
Osprey Circle S. Portland, ME	48 Units Apartments 2 large multi-unit buildings	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Oriole Way Ellsworth, ME	50 Units Apartments 7 Buildings, Flats and Townhouses	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Webster Point Orono, ME	15 Units Condos 7 Buildings Townhouses	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Summer Street Gardiner, ME	15 Units Apartments 2 Buildings, Flats and Townhouses	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Minot Ave. Auburn, ME	36 Units Apartments 3 Buildings, Flats and Townhouses	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Maple Street Augusta, ME	29 Units Apartments 3 Buildings, Flats and Townhouses	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Deering Place Portland, ME	75 Units Apartments	Avesta Housing (207) 553-7780
Motherhouse Portland, ME	88 Units Elderly Apartments	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Fox School S. Paris, ME	12 Units Elderly Apartments	Avesta Housing (207) 553-7780
Larrabee Commons Westbrook, ME	38 Units Elderly Apartments	Christopher LaRoche – Westbrook Housing (207) 854-6805-claroche@westbrookhousing.org
Millbrook Estates Westbrook, ME	38 Units Elderly Apartments	Christopher LaRoche – Westbrook Housing (207) 854-6805-claroche@westbrookhousing.org
St. Ignatius Sanford, ME	66 Units Apartments	Kevin Bunker - Developers Collaborative (207) 766-1632 - bunker.kevin@gmail.com
Eliot Housing Eliot, ME	38 Units Elderly Apartments HUD	David Bateman - Bateman Partners, LLC (207) 772-2992-David@batemanpartnersllc.com
Carleton Street Portland, ME	37 Units Apartments	Avesta Housing (207) 553-7780
Huse School Bath, ME	58 Units Apartments	Nathan Szanton - The Szanton Company (207) 8719811- nszanton@szantoncompany.com
Hodgkins School Augusta, Me	47 Units Apartments	Amanda Bartlett - Augusta Housing amanda.bartlett@augustahousing.org
134 Washington Ave. Portland, ME	18 Units Veterans Housing	Avesta Housing (207) 553-7780

RELATED PROJECT EXPERIENCE

Archetype has provided Design Services for the following residential projects.

Project & Location	Type of Project	Client
Village Green Cumberland, ME	38 Units Apartments	David Bateman - Bateman Partners, LLC (207) 772-2992-David@batemanpartnersllc.com
Sanford Mill Sanford, ME	36 Units Apartments	Northland Enterprises, LLC Rex Bell
Danforth on High Portland, ME	30 Units Apartments	Random Orbit, Inc. Peter Bass
Hyacinth Place Westbrook, ME	37 Units Apartments	Avesta Housing (207) 553-7780
Sullivan School Apartments South Berwick, ME	34 Units Apartments	David Bateman - Bateman Partners, LLC (207) 772-2992-David@batemanpartnersllc.com
Emery School Apartments Biddeford, ME	24 Units Apartments	Avesta Housing (207) 553-7780
The Mill at Saco Falls Biddeford, ME	66 Units Apartments	The Szanton Company (207) 8719811- nszanton@szantoncompany.com
Spring Crossing Elderly Housing Westbrook, ME	34 Elderly Apartments	Christopher LaRoche – Westbrook Housing (207) 854-6805-claroche@westbrookhousing.org
53 Danforth Portland, ME	43 Units Apartments	The Szanton Company (207) 8719811- nszanton@szantoncompany.com
Walker Terrace Portland, ME	40 Units Apartments	The Szanton Company (207) 8719811- nszanton@szantoncompany.com
Casco Terrace Portland, ME	27 Units Apartments	The Szanton Company (207) 8719811- nszanton@szantoncompany.com

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shop!
urban dwellings
St Lawrence
NO PARKING ANY TIME

ACORN ENGINEERING, INC.

COMPANY PROFILE

Acorn Engineering, Inc. is a Portland-based civil and environmental engineering firm of nine full-time employees and four construction inspectors. Acorn's team has a diverse portfolio providing Maine with quality engineering and environmental services as well as state-wide construction administration on behalf of the Maine Department of Transportation.

A cornerstone of Acorn Engineering is the attention to quality and exceptional level of service on every project, regardless of size. Our engineers and scientists pride themselves on their extensive experience, which is backed by a broad knowledge of civil and environmental engineering practices from smaller residential projects to larger commercial projects that integrate environmental assessment and site redevelopment.

Acorn Engineering has demonstrated the ability to breakdown and synthesize widely disseminated regulations into accepted engineering practices and practical site assessment and development. As a result of Acorn's efforts, the Cumberland County Soil & Water Conservation District recently recognized Acorn as the Contractor of the Year. This was the first award associated with the nationally recognized Long Creek Restoration Project and the first time the Cumberland County Soil & Water Conservation District ever recognized an engineering firm as their Contractor of the Year.

Acorn's expertise covers the areas of: civil/site design, evaluation, development, and permitting; and construction phase services such as construction administration, construction documents, project bidding, and site inspection including erosion and sedimentation control. Acorn's experience also includes the field of environmental engineering and compliance such as: Phase I and Phase II environmental site assessments, soil and groundwater remediation planning and design; Maine's Voluntary Response Action Program (VRAP); and stormwater treatment system design and permitting.

Acorn's engineers have designed, permitted, and overseen construction on numerous single-family and multifamily residential projects including traditional subdivision designs featuring on-site sewage/septic disposal and drilled wells. Furthermore, Acorn has demonstrated extensive experience and capabilities with municipalities, the Maine Department of Transportation (MDOT), Maine Department of Environmental Protection (MDEP), soil & water conservation districts, conservation commissions, municipalities, and the private sector on environmental and site development projects as demonstrated by the following:

- Listed on Maine DEP's Pre-Qualified Vendor List for Environmental Consulting Services
- Listed on Maine DOT's Pre-Qualified Consultants for eight service areas (listed under Section I.D)
- Cumberland County Soil & Water Conservation District Contractor of the Year for work on the Long Creek Restoration Project

- **Public Works Redevelopment – Meeting House Hill**

Over the past two years, Acorn Engineering has worked in close association with the City of South Portland, neighbors, and private clients on the re-development of the former Public Works facility. The 6-acre site is nestled in the middle of the Meeting House Hill residential neighbor-hood and is currently a mix of storage buildings, fuel fill stations, miscellaneous stockpiles, and pavement. The site will be redeveloped into a mix of multifamily townhomes and single-family dwellings comprising 38 units along with a public park and community gardens.

In addition to the environmental remediation, Voluntary Response Action Program (VRAP), and other environmental considerations given the previous land use, the project is subject to a Maine DEP stormwater management law. The redevelopment design results in a reduction in impervious area of over 50% and reduces land use intensity across the site. Though not required, several stormwater BMP's have been implemented into the site as a best practice, further attenuating and treating stormwater runoff. In addition to the significant redevelopment plan, Acorn has designed an infrastructure plan to separate the storm and sewer mains. This will include installing 400 feet of new storm drain along the existing O'Neil Street right-of-way and 700 feet of new storm drain along the proposed O'Neil Street right-of-way extension. Overall, this effort will reduce the effects of combined sewer overflows (CSO) into Casco Bay which occur due to wet-weather events and the wastewater treatment plant's inability to provide capacity for both storm and sanitary sewer flows.

As part of this project, Acorn held a multitude of meetings with the City including the assistant City manager, the former Mayor, the entire planning division, and the chief engineer of Public Works. Furthermore, Acorn has collaborated with department heads of the Fire, Parks, Public Works, and Water Resource departments to ensure a feasible and ideal project for all parties. As a result, the process was truly a collaborative effort with a number of stakeholders weighing in on the design.

- **Munjoy Heights**

Acorn provided civil/site engineering and permitting for the design of Munjoy Heights – a six townhome, 29-unit development on the steep slopes of Munjoy Hill in the City of Portland. Acorn designed and developed construction drawings for the sanitary sewers, storm drains, water mains, driveways and pedestrian circulation, retaining wall locations, building locations, and drainage infrastructure to be built in compliance with City standards.

A key component to the project was coordinating with the City on the future combined sewer separation project and the site's overall stormwater management. Additionally, discussions with neighbors and stakeholders were paramount in the project's success.

The innovative urban infill project compliments the Munjoy Hill neighborhood with a communal design and plentiful native landscaping that replaced invasive species which previously dominated the eroding banks prior to the development. The $22 million project features a courtyard, terraced landscaping, a Portland Trails-maintained path that connects the redevelopment to the existing trail system, and low impact development (LID) techniques that meet MDEP Chapter 500 regulations. The stormwater management includes an underdrained sand filter and chambers that detain and treat stormwater on site in tandem with strategically placed rain gardens.

The project required extensive coordination and collaboration between the client, City of Portland, Portland Trails, the structural engineer, the architect, and the contractor to successfully complete the project with the first "woonerf" in the state and maintaining the existing public walking path through the property.

- **200 Valley St**

Working with Avesta Housing, Acorn Engineering provided civil engineering and permitting for Avesta's 60-unit project in the St. John Valley neighborhood. This urban infill project replaces the existing single-family house and abutting vacant lots into new affordable housing opportunities with two levels of covered parking, amenities, and a rebuilt project frontage with new sidewalks, street trees, and bicycle hitches.

As part of the project, Acorn developed a transportation and parking analysis to ensure that the provided parking will adequately serve the redevelopment. Furthermore, the design team identified and implemented multiple strategies to encourage residents to efficiently utilize the many modes of transportation available on the Portland peninsula.

- **Little Dolphin Drive & Jocelyn Place**

In collaboration with the South Portland Housing Authority and Risbara Holdings, Acorn provided civil engineering design and permitting of a multi-use subdivision at the end of Little Dolphin Drive in Scarborough. Proposed uses include a two-story office building and a three-story 60-unit senior housing facility with associated parking and landscaped areas.

In addition to a voluntary neighborhood meeting, the project went through a 3-step master plan phase with the Town of Scarborough in which the project was collaborated on with Planning Staff, the Planning Board, and neighbors.

The project is subject to Maine DEP and US Army Corps permits. To adequately treat stormwater on the site, Acorn has designed multiple stormwater BMPs meeting Maine DEP Chapter 500 regulations resulting in a low impact design.

- **89 Anderson Street**

In collaboration with Redfern properties and the East Bayside neighborhood, Acorn developed the civil/site engineering design of a mixed use 53-unit redevelopment of an existing under-utilized, urban infill lot in the East Bayside neighborhood. Acorn's scope of services included in the initial phase applying for and obtaining a zone change and conducting Phase I and Phase II Environmental Site Assessments to evaluate potential environmental contamination at the site.

After conducting the environmental remediation efforts, Acorn developed the site layout and design of sanitary sewers, storm drains, water mains, site driveway, retaining wall locations, building locations, parking lot design, building drainage structures, utility connections and landscaping plan (with a landscape architecture subconsultant) to meet the City of Portland Technical Standards. Acorn also integrated sidewalk and improvements associated with the project into the City's Anderson Street ByWay project. Furthermore, the project team worked with a non-profit organization, the Telling Room, to provide public art along the Fox Street streetcape in lieu of traditional fencing.

Overall, the project established an important mixed use building on a prominent corner lot adjacent to Kennedy Park which contains popular recreation space. The building houses a restaurant and the Gear Hub bicycle school on the first floor with residential apartments above which encourages an active street presence with housing, goods, and services that help tie the neighborhood together and keep eyes on the street.

- **667 Congress Street – The Hiawatha**

The $28 million project included the civil/site engineering design for the 8-story, first floor retail and 139-unit apartment building on Congress Street in Portland. Vehicle parking is served by two levels with separate access from Vernon and Avon St. The project featured building and site design in an historic district adjacent to Longfellow Square.

Services included, but is not limited to, permitting with the City of Portland, layout and design of sanitary sewers, storm drains, water mains, pedestrian and vehicle entrances, building locations, parking lot design, and parking garage grading and drainage. Acorn provided significant coordination between the Architect, Structural Engineer, Geotechnical Engineer, Construction Management Company, Owner, and the City.

CREDERE ASSOCIATES, LLC

Brownfield Assessment & Cleanup

Credere specializes in redevelopment planning, engineering, and environmental sciences with a goal of providing services that positively impact the community, economy, and environment using Smart Growth principles. Credere is SBA certified 8(a); DOT certified DBE in ME, NH and MA; and Self-Certified EDWOSB/WOSB.

The word “credere” means “to believe” in Italian. Credere is also an acronym for community revitalization, economic development, environmental remediation, and engineering. It was very important to Theresa and Rip Patten when naming the company that the name communicates something more than crediting the owners. The name should embody the company mission: what the company believes, what it aspires to do for its clients, and the means through which it can be achieved. To us, Credere is the perfect name. We believe that we can use our engineering education and our knowledge of environmental remediation to help our clients achieve community revitalization by successful completion of redevelopment projects. It is our small way to make the world a little better. Credere works with planning commissions, municipalities, economic development boards, private developers, and local and federal government agencies to overcome environmental issues that are hindering the redevelopment process.

Credere’s mission is to provide services that positively impact the community, economy, and environment that our clients and employees work, live and play.

Credere has extensive experience in completing long-term, sustainable Brownfields Programs and private redevelopment projects, which use smart growth principles. The projects include various tasks, such as, environmental assessment, re-use planning and remediation and redevelopment engineering.

Marada Adams School – 48 Moody Street, Portland, Maine

The 1.5-acre Marada Adams Community School was used as an educational facility from 1958 until 2006, when the school was closed and the property was vacated. Historically, the property contained a complex of buildings occupied by the Portland Railroad Company and a trolley railroad crossed the middle of the site. During the late 1800s, a portion of the property was also used as the Burgess, Forbes & Company White Lead & Color Works facility (a can and hand grenade manufacturer). Credere performed a Phase I assessment at the property in anticipation of a transfer of ownership from the City of Portland to a private non-profit affordable housing developer, AVESTA Housing. Following the sale of the property, Credere performed Phase II activities to investigate potential hazardous building materials and contaminated soil. Based on the Phase II data, the developer was able to anticipate concerns with worker and future residential exposure, and waste soil disposal. Credere helped the development team minimize the financial and logistical impact of these issues though the re-design of the site layout, enrollment in the Maine DEP VRAP program, and attainment of a $200,000 Brownfields cleanup grant. Between 2012 and 2013, Credere oversaw the remediation of hazardous building materials, contaminated soils, and the redevelopment of this site into 16 units of affordable homeownership housing, a public greenway and a playground. The project transformed an underutilized Brownfields site located in an otherwise vibrant neighborhood and returned it to the community.

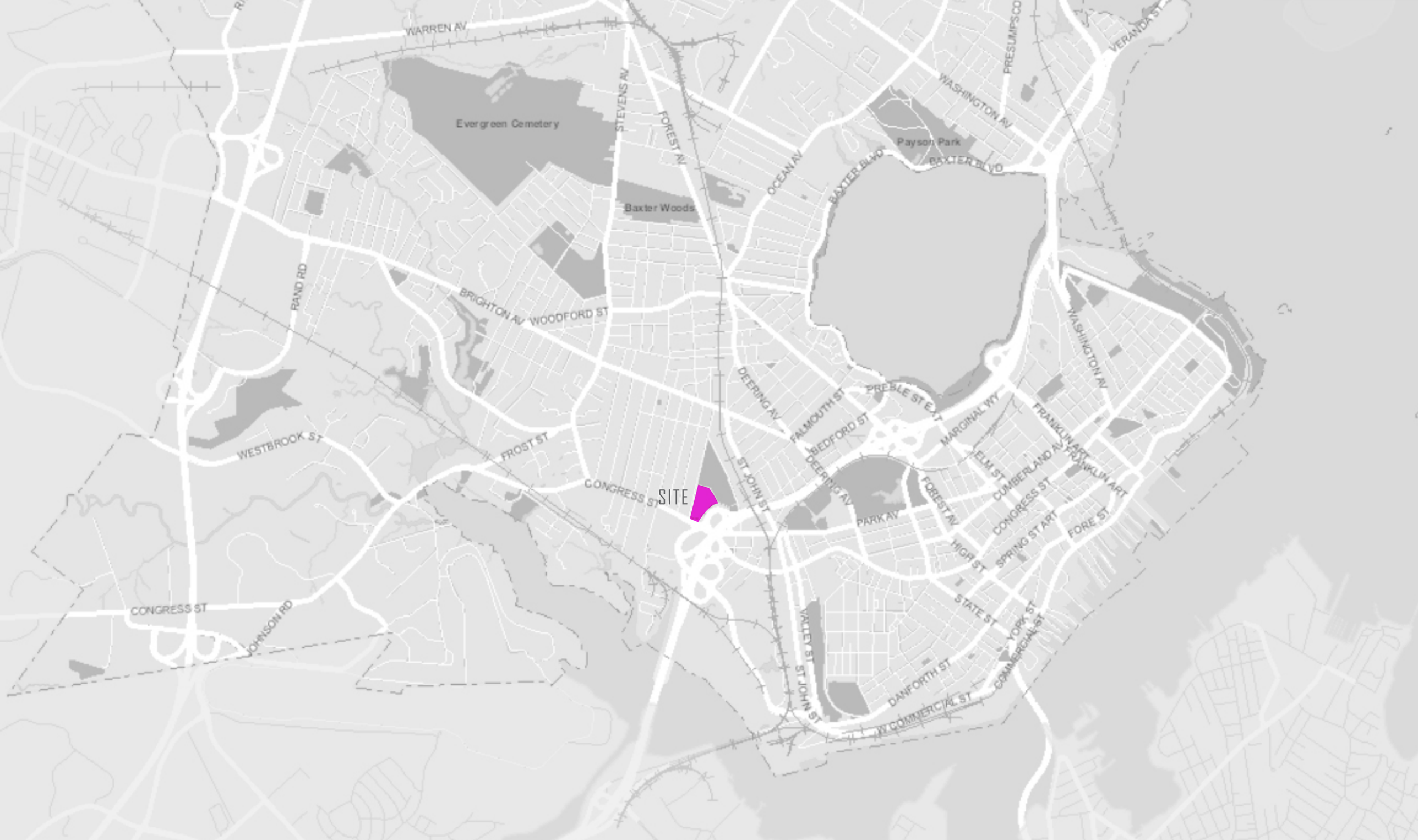
Thornton Heights Commons – 611 Main Street, South Portland, Maine

The South Portland Housing Authority acquired the forma St. John parish church, rectory (i.e. a residence for clergy), and a church school in Thornton Heights or South Portland, Maine. The buildings on the 1.81-acre site were severely dilapidated and contained substantial hazardous building materials including lead, asbestos, and PCBs, and soil was contaminated from lead paint around all of the Site buildings. Credere performed several phases of environmental investigation, geotechnical investigation, assisted the housing authority in obtaining a $500,000 EPA Brownfields cleanup grant, and cleanup and redevelopment planning. In 2020, Credere oversaw the solicitation of bids from cleanup contractors and subsequently implemented the abatement and remediation of the site, demolition of the Site buildings, and preparation of the site for redevelopment. The project is currently moving to construction of a 46,000 square foot four-story mixed-use affordable housing projected that will include parking for seventy vehicles,

a 10,000 s.f. community open space, and three new single-family house lots. The building will consist of 42 apartments on the three upper floors, a community space, and 7,000 s.f. of commercial space on the ground floor.

State Street School – 261 Center Street, Brewer, Maine

The State Street School was a 6,630-square foot two-story building that was constructed in 1948. The Site building was operated as an elementary school from 1948 until June 2011 and was vacant thereafter. Based on assessment work completed at the Site by Credere and others, asbestos, lead, and universal and/or hazardous waste were considered to be contaminants of concern. Credere assisted the City in remediation planning and environmental clean activities, which included abatement and removal of asbestos; universal, special, and hazardous waste; and lead-based paint building debris in accordance with the Maine DEP VRAP. To support the redevelopment of the Site, Credere completed a geotechnical engineering evaluation and provided recommendations for the design and construction of the 48-unit Community Housing of Maine (CHOM) affordable housing development. This was the first multi-family passive building in ME and in New England, and at the time, was the largest passive housing building anywhere in the country. As part of this work, Credere conducted a subsurface exploration program, which included laboratory testing, evaluating subsurface conditions, and completing geotechnical engineering analyses including settlement and bearing capacity calculations and limited stability assessment of proposed excavations.



SITE LOCATION MAP

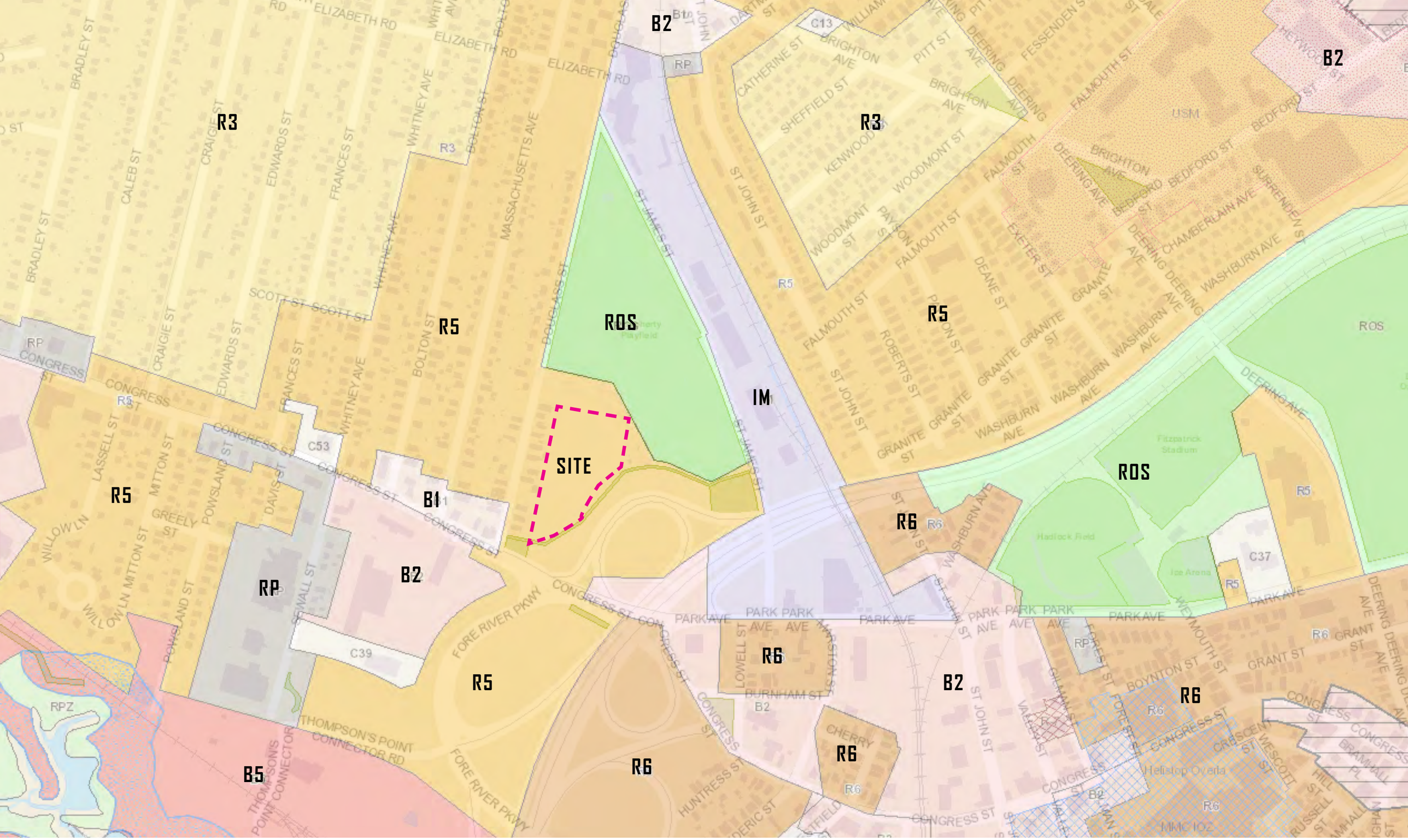
MAY 2020

ALA
LANDSCAPE ARCHITECTURE + URBAN DESIGN + GRAPHICS
ACETO LANDSCAPE ARCHITECTS | WWW.ACETOLA.COM

HISTORIC CONTEXT (pre 295 construction)

MAY 2020

LANDSCAPE ARCHITECTURE + URBAN DESIGN + GRAPHICS
ACETO LANDSCAPE ARCHITECTS | WWW.ACETOLA.COM



ZONING MAP

MAY 2020

ALA
LANDSCAPE ARCHITECTURE + URBAN DESIGN + GRAPHICS
ACETO LANDSCAPE ARCHITECTS | WWW.ACETOLA.COM

VICINITY TO TRANSIT

MAY 2020

ALA
LANDSCAPE ARCHITECTURE + URBAN DESIGN + GRAPHICS
ACETO LANDSCAPE ARCHITECTS | WWW.ACETOLA.COM

AERIAL

MAY 2020

DEVELOPABLE AREA

MAY 2020

ALA
LANDSCAPE ARCHITECTURE + URBAN DESIGN + GRAPHICS
ACETO LANDSCAPE ARCHITECTS | WWW.ACETOLA.COM

LAND USE SUMMARY

BLDG	HT	UNITS	GSF
A (CO-OP)	3ST.	12	~11,760
B (CO-OP)	2 ST.	4	~4,080
C (CO-OP)	2 ST.	4	~4,080
D (CO-OP)	2 ST.	4	~4,080
E (CO-OP)	2 ST.	4	~4,080
F (CO-OP)	3 ST.	12	~11,760
G (CO-OP)	3 ST.	12	~11,760
H (CO-OP)	4 ST.	56	~63,964
TOTAL		108	~115,564

PARKING SUMMARY

81 SPACES (.75/UNIT)

LOT COVERAGE

TOTAL ENVELOPE	~3.08 AC.
TOTAL BLDG COVERAGE	~40,230 SF
TOTAL IMPERVIOUS PAVING	~40,163 SF
TOTAL LOT COVERAGE	80,393 SF (~60%)

DOUGLASS COMMONS CO-OP+

OVERALL SITE PLAN

01. PRIMARY ENTRY DRIVE
02. PARKING
03. SHARED STREET
04. PASEO
05. GREEN ALLEY
06. ENTRY TERRACES
07. BUFFER PLANTING
08. GARDENS/FOOD FOREST
09. EXISTING PARK LOOP
10. MULTI-USE PATH
11. RAIN GARDENS
12. FUTURE PLAYGROUND
13. RELOCATED BASKETBALL
14. POTENTIAL EV CHARGE STATIONS
15. BICYCLE STORAGE
16. TRASH/RECYCLING
17. COMMUNITY GARDENS

APPROX. PROPERTY BOUNDARY

BLDG A
3-STORY
12 CO-OP
HOMES

BLDG B
2-STORY
4 CO-OP
HOMES

BLDG B
2-STORY
4 CO-OP
HOMES

BLDG B
2-STORY
4 CO-OP
HOMES

BLDG B
2-STORY
4 CO-OP
HOMES

BLDG F
3-STORY
12 CO-OP
HOMES

BLDG H
4-STORY
56 APARTMENTS

BLDG F
3-STORY
12 CO-OP
HOMES

APPROX. DEVELOPMENT ENVELOPE

DOUGHERTY FIELD
PARK

NORTH

0 15 30 60 FEET

DOUGLASS COMMONS CO-OP+

ENLARGED SITE PLAN

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

WOONERF

WOONERF

28
COMMON GREEN

PARK PROMENADE

.

EXHIBIT D

Minimum Household Size and Maximum Allowable Monthly Rent Calculation

The Minimum household size for a unit is based on the number of bedrooms in the unit, as set forth in the table below. The maximum allowable monthly rent for a unit is 1/12 of 30% of the Area Median Income, based on the minimum household size for a unit, less the occupant's costs for utilities.

	Studio/One-Bedroom Unit	Two-Bedroom Unit	Three-Bedroom Unit	Four-Bedroom Unit
Minimum Household Size	1	2	3	4

For Example, utilizing 2020 AMI levels, and assuming no out of pocket utility costs, the maximum allowable monthly rent would be as follows:

Studio/One Bedroom Unit: 1/12(0.30 x $70,630) = $1,765.75
Two Bedroom Unit: 1/12(0.30 x $80,720) = $2,018.00
Three Bedroom Unit: 1/12(0.30 x $90,810) = $2,270.25

In the event that the occupant has out of pocket utility expenses, the maximum allowable monthly rent would be decreased by the amount of those utility expenses. For example, for a two bedroom unit with $300 in monthly utility expenses, the maximum allowable monthly rent would be $2,018.00 - $300 = $1,718.00.

Utility allowance will be calculated in one of two ways: (1) using the utility allowance established by the Portland Housing Authority or (2) based on actual documented utility usage at the property.

Maine Cooperative Development Partners
&
The Szanton Company

July 19, 2021

Dear Neighbor,

Please join Maine Cooperative Development Partners and The Szanton Company for a neighborhood meeting to discuss our plans and proposed zoning amendment for the Douglass Commons Neighborhood proposed at 43 & 91 Douglass Street.

Date: Tuesday, August 3, 7:00 pm
Meeting Location: Jewish Community Alliance, 1342 Congress St, Portland

Maine Cooperative Development Partners and The Szanton Company are working with the City of Portland to create Douglass Commons: an affordable, green, transit-oriented, walkable, neighborhood at the site of the former West School (43 & 91 Douglass Street), adjacent to Dougherty Fields.

In order to accomplish the goals of the project, we have requested a re-zone of the parcel from the R-5 to the R-5a zone. This would allow for a planned residential unit development (PRUD) that would accommodate our proposed 108 units of housing.

- For more information, maps, notes and presentations from previous neighborhood meetings, and zoom and phone links, please visit: https://www.mainecooperativehousing.com/douglass.html

- **Please RSVP,** ask questions, or join our email list by emailing Liz Trice at liztrice@gmail.com

We look forward to connecting with you.

Liz Trice, Matt Peters, and Brian Eng - Maine Cooperative Development Partners Team
Carl Szanton, Amy Cullen, Nathan Szanton - The Szanton Company

The Land Use Code requires that neighboring property owners and residents on an "interested parties list" be invited to participate in this neighborhood meeting. A [electronic] sign-in sheet will be circulated and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board. Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

Aug 6, 2021

I, Liz Trice of Douglass Commons LLC (The partnership between Szanton Company and Maine Cooperative Development Partners and hereby certify that a neighborhood meeting was held on Tuesday, Aug 3, 2021 at 7pm for the proposed project located at 45 & 91 Douglass Street.

I also certify that on 8/3/21, more than ten (10) days prior to the neighborhood meeting, notices were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development (1,000 feet for subdivisions within an industrial zone or industrial zone changes).

2. Residents on the “interested parties” list.

Signed,

8/6/21

Attachments
1. Copy of the notice sent
2. Sign-in sheet
3. Record of feedback

Desiree Lester
Nicole Mokeme
Alex Land

Neighborhood meeting sign-in (optional)

Name	Address	Phone	Email (please print clearly)
Ward Peck	242 Douglass St.	210 0870	wardspeck@gmail.com
JIM ALBERTY			
Francisco Lopez	76 Pawsland St	(719) 661-7142	francisco.lopez118@gmail.com
DON HARDEN	81 DOUGLASS ST	(207) 774-2016	DHARDEN@CCMAINE.ORG
Jennifer Dubay	50 Bradley St.	415-4650	jnnfrdby@yahoo.com
Damon Yakouleff	72 Bolton St	~~202~~ 8604282058	damon.yakouleff@gmail.com
Matthew Peters	Project team		matt@elysiancommunities.com
Amy Cullen	Project team		acullen@szantoncompany.com
Jon Bradstreet	75 Douglass St.		jonbradstreet@gmail.com
Leigh Tanji	56 Douglass St.	413 847 1224	leightanji@gmail.com
Kellen Safreed	56 Douglass St	330 617 9457	kellensafs@gmail.com
KRISTEN ROBINSON	335 FOREST AVE	207-615-1955	NIKKA.SKY@GMAIL.COM
Celeste Parke	87 Douglass	207 210 2415	celeste.parke@gmail.com
Maureen S. Morse	25 Whitney Ave.	(617) 515-2495	maureensheamorse@gmail.com
Online Emma Sudder	143 Bolton		
Renee Goddess	Carlton Street		
Michael Chestnutt	West End Clark St Renter		
Seth Moore			
Jack Baronitz	22 Huntress St	207 838-6120	jbaronitz@gmail.com

Neighborhood meeting sign-in (optional)

Name	Address	Phone	Email (please print clearly)
Jim Alberty	44 Walter Partridge Rd. Windham	207.210.2116	JAlberty@Me.com

Douglass Commons Neighborhood Meeting Started meeting at 7:04pm Tuesday, Aug 3, at Jewish Community Alliance

- **Welcome:** Carl Szanton & Amy Cullen from the Szanton Company, Liz Trice and Matt peters from Maine Cooperative Development Partners

- **Introductions (17 participants)**

  In person:

  Lee & Kellen, 56 Douglass, renters

  Jen Dubay, Bradley Street,

  Francisco, Palisant Street

  Damon, Bolton Street,

  Jon Bradstreet, Abutter on Douglass with concrete driveway and apt above garage

  Ward 20 year renter, has son that uses fields, prospective resident

  Don Harder 81 Douglass

  Celeste Douglass Abutter

  Moureen Morse, 25 Whitney, LNA Chair

  Jim Alberty, Windham, prospective resident

  Kristin Robins, Forest Ave, prospective resident

  online:

  Emma Scudder 143 Bolton

  Renee Goddess - works with evicted folks

  Michael Chesna - Architect, interested in equality issues

  Seth Moore, West End Clark Street, Renter,

  Zack Barowittz, Huntress Street, former LNA Chair,

- **Presentation:** available at www.mainecooperativehousing.com

Q: How many parking spaces will there be?

- During the competition phase, we said about 80 spaces total; we will figure out specifics during site design process.

When there is a concert at Thompson's Pt., the Parking situation is awful. Also when there is an athletic event on the park.

Concerns about congested parking

Q: Any 4- Bedrooms? A: Not currently planned

Q: Any business uses? A: Not currently planned but could be any business that's currently allowed on Douglass Street.

Reducing Number of cars-

We're negotiating with Metro on free/reduced passes for everyone in our neighborhood.

Hookups for electric cars? yes, we're investigating snow concerns

Snow bans-people cannot park on street. Can St-James Street or Water District be opened as snow ban parking.

Water District seems to have a lot of extra parking. There's actually much more transit

Intersection at Brighton and Douglass

- needs improving ~ needs sidewalks no crosswalk paint
- we'll want a seat at the table during those discussions as they improve the road there.

Street behind the houses

- Some don't mind it being there
- until recently, thought was public road
- very wet there -don't want water to be pushed onto their backyards
- the water got worse when they re-did the street (when the adult ed. was still there)
- Issue with Celeste having a small gravel parking space accessed from existing street behind house - we recommended she talk to the city about access.

How many cars will be there?

- saying there will be less cars isn't enough
- need to really incentivize people to not have cars
- Most people in the meeting indicate a job is necessary for their job. Assuming people wouldn't have cars is unrealistic.
- Safety issues regarding using transit and public streets (walking) to get home.
- Lighting on streets

- Need more walkable places-need light
- Things close early, not a lot of people on the street.

How to transition between now and when we can use less cars = Street parking

During athletic events there is limited parking available on Douglass.

Water district doesn't allow people to park on weekends.

What is unsafe is car infrastructure. To make an are more safe, build less car infrastructure.

Congress St. is a mess. We don't have control over that, but as a neighborhood, we can go to the city together.

How tall is the Szanton Bldg? Will it block some of the highway noise?

- 4 stories, hope it will block some noise

Will it have an elevator?

- The Stanton Company-yes
- The Co-op units- no - elevators are only cost effective in large buildings, coop is building small building to fit in with neighborhood.

Are you considering separating parking from rent?

- Yes. It's a consideration, more likely on Co-op side.

Removing the clover leaf:

- Went to the State, it wasn't voted out of Committee. The Maine Dot Strongly opposes. It's a long, difficult process.

How many Coop owners? 1 owner per unit. Explain limited equity cooperative. (Liz explains) Are there rules to stop it from creating a frat house? The coop will make it's own rules, but it's likely to have a diverse group of people.

Any way we can prod the playground along?

- Frustrating in the neighborhood that they haven't started that, yet.

Will there be solar?

Most likely on Co-op side, less likely on apartments due to Maine Housing rules.

Will there be Laundry-will there be on-site?

Yes; shared in apartments, townhomes will likely have in-unit laundry, coop flats not sure if will be shared or individual.

Zoning- what exactly is the change?

Allows us to go a little higher and build denser. Would allow up to about 180 units.

The zoning meets the comprehensive plan.

When will pre-sale begin?

- Probably by spring

Neighborhood meetings- will have more in late fall.

Compiled List of Desires by attendees:

EV Chargers

Carsharing

Use St James Street in addition to Douglass for street parking

Bikeshare

Water District has lots of parking - make a deal with them, especially for snow bans

Need to improve Brighton/Douglass Intersection - There's no curb cut currently for sidewalk, traffic comes fast down Brighton, then turns right Douglass too fast.

#4 Bus on Brighton is an asset - should show on maps. It goes all the way to Gorham and stops right at Douglass, and the Husky line stops at Crooked Mile coffee shop at Stevens and also at USM.

Would like trees or shrubs to separate existing backyards from new townhome backyards

Drainage - it's always wet right behind the backyards - make sure that not more water is flowing that way

"I would love to not have a car, but it's hard."

Exit 5/Douglass intersection is unsafe for pedestrians; woman told story of taking Amtrak to Boston for work and feeling threatened by a person in a vehicle while walking home. Sense that Metro is unsafe for women.

The bridge by St James/ Congress has become a place for transients

It's nice to see adults using fields at night

If we build more infrastructure for cars it will become even less safe for pedestrians

Promoting Toro car share makes sense.

The sidewalk on opposite side of Douglass ends abruptly

Congress is a really scary place to Bike and Walk, very difficult to get to the West End, Transportation Center, or Thompson's point.

Wants to see playground built sooner than later

Wants to see lots of solar panels

Decoupling parking from housing costs - opinions both ways, one person pointed out that parking can cost 25% of housing costs.

Worried about access/lack of elevators (only cost effective in biggest /Szanton building, all common spaces will be on first floor, and each flats building will have at least one ADA unit.)

One person prefers flats to multi floor housing (townhomes will be two story units)

Damon- Very interested in food forest and community gardens; there's a backlog of 700 people wanting gardens.

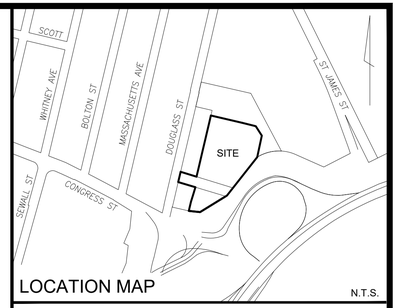
How do we sign up for housing? Szanton takes an interest list and let's people know 3 months in advance. www.mainecooperativehousing.com has a signup survey.

Like the idea of the food forest

Community garden space

PERRY FIELD
RUSSO FIELD
DUGOUT
UNDERGROUND WATER LINE "SHUT-OFF"
"RUSSO FIELD" SIGN
CONCESSION STAND
SHED
N:300459.57
E:2921184.33
N/F STATE OF MAINE "INTERSTATE 295"
ON RAMP
OFF RAMP
PROPOSED STREET AS SHOWN IN CCRD 958/96-97 NOT MENTIONED IN STATUATORY VACATION DEED 13326/19
S13°08'38"W 141.07'
S26°27'03"E 36.83'
PLAYGROUND AREA
SWINGSET AREA
BASKETBALL COURT
UP w/UGE
WALK
FENCE
METAL GUARDRAIL
#147.22
S39°37'38"W 287.39'
6"x6" CONCRETE HIGHWAY MONUMENT w/PLUG S46°50'26"W 0.38' TO CORNER
GAS WITNESS
NORTHERN UTILITIES, INC. ANODE BED EASEMENT 33292/266 SEE PLAN REF. 4
#147.21
ELEC. METER
S59°23'19"W 188.51'
#147.2
N/F STATE OF MAINE "INTERSTATE 295"
PROPOSED STREET AS SHOWN ON CITY PLAN 406/63
60'
PROPOSED LOT AREA= 148,228 S.F. ± 3.40 ACRES ±
GRASS
GRAVEL/OVERGROWN
TM 78-B-7 N/F CITY OF PORTLAND
S76°51'22"E 308.15'
PROPOSED STREET AS SHOWN ON CITY PLAN 406/63
PROPOSED STREET AS SHOWN ON CITY PLAN 406/63 & RIGHT-OF-WAY TO PORTLAND GAS LIGHT CO. CCRD BK 958/96-97 NOT MENTIONED IN STATUATORY VACATION DEED 13326/19
TM 78-C-2 N/F CITY OF PORTLAND
GAS WITNESS
2"IPF
6"x6" CONCRETE HIGHWAY MONUMENT w/DRILL HOLE S21°51'20"W 0.56' TO CORNER
N18°49'47"W 61.13'
DOUGHERTY FIELD N/F CITY OF PORTLAND 1667/157-159 1663/425 1659/6 1573/98 1813/154 1815/84
PAVED/GRAVEL
GRASS
PAVED
N:300700.02
E:2920899.97
N:300346.97
E:2920817.53
STOCKADE FENCE
362.54'
N13°08'38"E
CHAIN LINK FENCE
STOCKADE FENCE
FENCE
5/8"CIRF
IPF
N16°57'38"E 87.42'
52.49'
N13°08'38"E
1-1/2"IPF
6"x6" CONCRETE HIGHWAY MONUMENT w/DRILL HOLE
TM 78-C-18
GARAGE
106.50'
N72°29'22"W
S72°29'22"E 100.29'
UNITIL EQUIPMENT
OHW
SIDEWALK
BOLLARDS
HOUSE
2"IPF BENT
60.17'
N13°08'38"E
TM 78-B-6 N/F PEAR TREE PROPERTY MGT LLC 34055/342
TM 78-B-9 N/F HILLARY COOKE & ISAAC STROE 31890/320
TM 78-B-5 N/F DONALD & KATHLEEN HARDEN 8889/16
TM 78-B-4 N/F CHARLES & ROBINA O'ROURKE 15823/161
TM 78-B-3 N/F JONATHAN BRADSTREET 25338/96
TM 78-B-42 N/F GERALDINE & GERALD LOSIER 31068/165
TM 78-B-2 N/F NINH DANG 32598/207
TM 78-B-1 N/F DAWN LOVELACE 32283/48
TM 78-C-1 N/F ROBERT RICHARDSON & PHILIP STOCKER 35679/59
TM 78-C-19 N/F BK PROPERTIES LLC 34701/211
TM 78-C-29 N/F GARY & RACHEL WENZEL 22153/27
9' WIDE RIGHT OF WAY 1762/296
METAL POSTS
WATER METER
IPF
1"IPF
1/2"IPF
5/8"IRF
#10
#9
#8
PAVED SIDEWALK
#7
DOUGLASS STREET
PAVED - PUBLIC - 52' WIDE
#12
CONGRESS STREET

SCALE : 1" = 30'
0' 15' 30' 60'



LOCATION MAP N.T.S.

LEGEND

IRON PIPE OR ROD FOUND	FENCE
MONUMENT FOUND	CURB
UTILITY POLE	OHW — OVERHEAD WIRES
MANHOLE	D — STORM DRAIN
SIGN	S — SANITARY SEWER
WATER VALVE OR SHUTOFF	G — GAS LINE
TREE	W — WATER LINE
	IPF/IRF — IRON PIPE OR ROD FOUND
	N/F — NOW OR FORMERLY
	000/000 — DEED BOOK / PAGE

PLAN REFERENCES

1. BOUNDARY WORKSHEET OF DOUGHERTY FIELD DOUGLASS STREET, ST. ST. JAMES ST. AND INTERSTATE 295, BY THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING SECTION DATED MARCH 2006, CITY PLAN 991/3.

2. PLAN OF PROPERTY IN PORTLAND, MAINE BELONGING TO THE J.B. BROWN & SONS CORP & HEIRS OF ST JOHN SMITH BY E.C. JORDAN & CO., CITY PLAN 463/5.

3. PLAN OF LAND CONGRESS AND DOUGLASS STREETS OWNED BY CITY OF PORTLAND PARK COMMISSION BY CHANDLER H. BARRON C.E. DATED NOVEMBER 1946, CITY PLAN 799/8.

4. ANODE BED EASEMENT DOUGLASS STREET AT DOUGHERTY FIELD BY CITY OF PORTLAND PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION DATED 09/30/2016, CITY PLAN 882/53.

5. MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP STATE HIGHWAY "295" PORTLAND CUMBERLAND COUNTY FEDERAL AID PROJECT NO. I-295-3(24)8(25) DATED MAY 1967.

GENERAL NOTES

1. OWNER OF RECORD: CITY OF PORTLAND
389 CONGRESS STREET, PORTLAND, MAINE
TAX MAP 78 BLOCK C LOT 2
TAX MAP 78 BLOCK B LOT 7

2. BEARINGS AND COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD 83 PER PLAN REFERENCE 1.

3. THE SURVEYED PROPERTY IS IN THE R5 RESIDENTIAL ZONE.

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATION THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

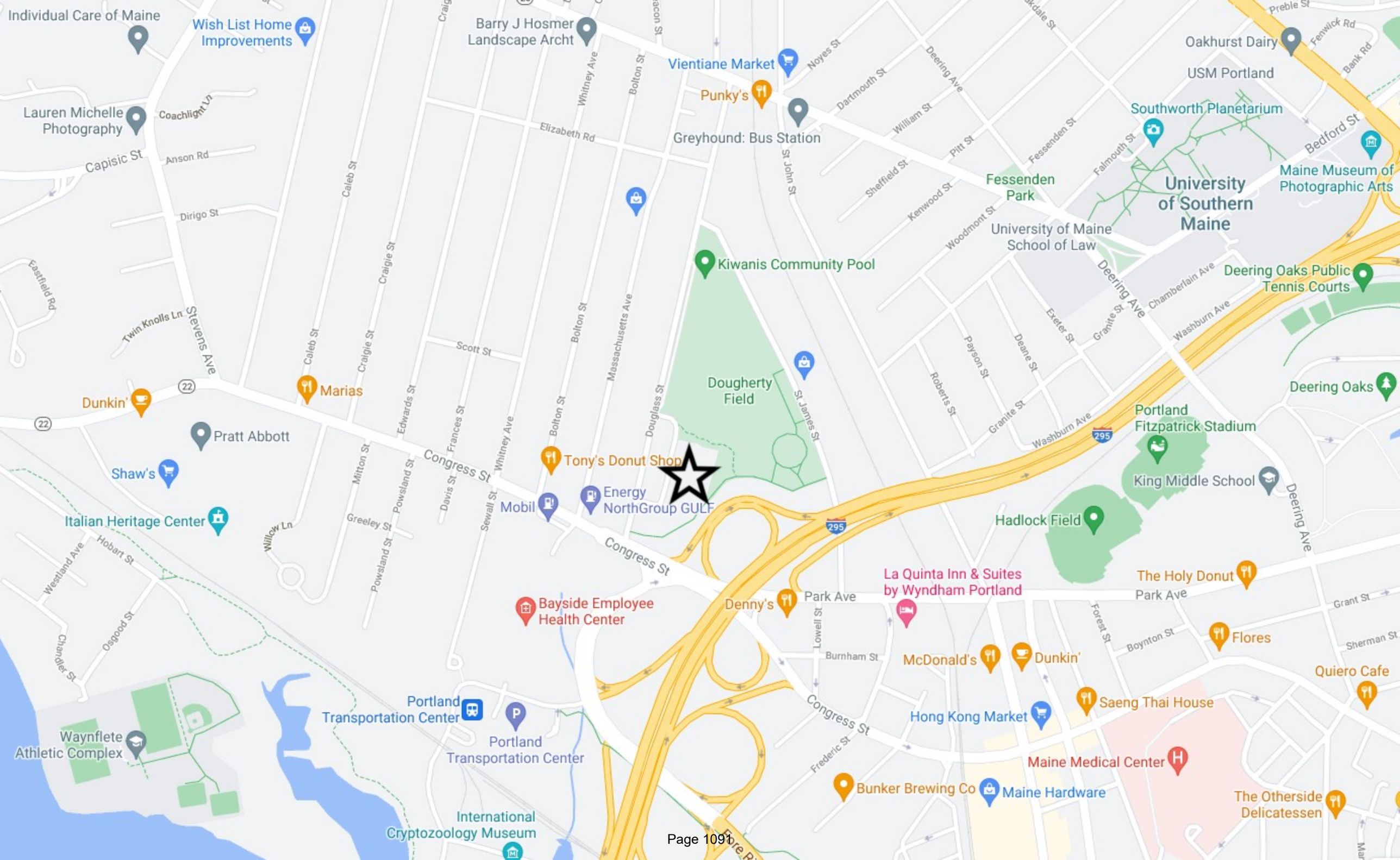
RANDY R. LOUBIER, PLS #2407

DATE

Boundary Survey
At
43 & 91 Douglass Street, Portland, Maine
Made for
The Szanton Company
482 Congress St., Ste. 203, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: RS / JLW	DATE: MARCH 1, 2021	JOB NO. 2021-026 P	
CHECKED BY: RRL	SCALE: 1" = 30'	DRWG. NO. 1	


Individual Care of Maine
Wish List Home Improvements
Barry J Hosmer Landscape Archt
Vientiane Market
Punky's
Greyhound: Bus Station
Oakhurst Dairy
USM Portland
Southworth Planetarium
Lauren Michelle Photography
Coachlight Ln
Capisic St
Anson Rd
Elizabeth Rd
Dirigo St
Caleb St
Craigie St
Whitney Ave
Bolton St
Noyes St
Dartmouth St
Deering Ave
William St
Pitt St
Fessenden St
Falmouth St
Bedford St
Fessenden Park
University of Southern Maine
Maine Museum of Photographic Arts
Sheffield St
Kenwood St
Woodmont St
University of Maine School of Law
Kiwanis Community Pool
Deering Oaks Public Tennis Courts
Chamberlain Ave
Washburn Ave
Granite St
Exeter St
Deane St
Payson St
Roberts St
Eastfield Rd
Twin Knolls Ln
Stevens Ave
Scott St
Massachusetts Ave
Douglass St
Dougherty Field
St James St
Deering Oaks
Dunkin'
Marias
Pratt Abbott
Edwards St
Frances St
Whitney Ave
Bolton St
Congress St
Tony's Donut Shop
Portland Fitzpatrick Stadium
King Middle School
Shaw's
Mitton St
Powsland St
Davis St
Sewall St
Energy NorthGroup GULF
Mobil
Italian Heritage Center
Willow Ln
Greeley St
Hadlock Field
Hobart St
Westland Ave
Congress St
La Quinta Inn & Suites by Wyndham Portland
The Holy Donut
Park Ave
Denny's
Bayside Employee Health Center
Lowell St
Burnham St
Forest St
Boynton St
Grant St
Flores
Sherman St
McDonald's
Dunkin'
Quiero Cafe
Osgood St
Chandler St
Portland Transportation Center
Saeng Thai House
Hong Kong Market
Waynflete Athletic Complex
Portland Transportation Center
Frederic St
Maine Medical Center
Bunker Brewing Co
Maine Hardware
The Otherside Delicatessen
International Cryptozoology Museum

LAND USE SUMMARY

BLDG	HT	UNITS	GSF
A (CO-OP)	3ST.	12	~11,760
B (CO-OP)	2 ST.	4	~4,080
C (CO-OP)	2 ST.	4	~4,080
D (CO-OP)	2 ST.	4	~4,080
E (CO-OP)	2 ST.	4	~4,080
F (CO-OP)	3 ST.	12	~11,760
G (CO-OP)	3 ST.	12	~11,760
H (CO-OP)	4 ST.	56	~63,964
TOTAL		108	~115,564

PARKING SUMMARY

81 SPACES (.75/UNIT)

LOT COVERAGE

TOTAL ENVELOPE	~3.08 AC.
TOTAL BLDG COVERAGE	~40,230 SF
TOTAL IMPERVIOUS PAVING	~40,163 SF
TOTAL LOT COVERAGE	80,393 SF (~60%)

DOUGLASS COMMONS CO-OP+

OVERALL SITE PLAN

DOUGLASS COMMONS CO-OP+

ENLARGED SITE PLAN

DOUGLASS COMMONS CO-OP+
PERSPECTIVE
ALA
ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

PLANNING BOARD REPORT
PORTLAND, MAINE

Pre-owned Automobile Dealership
Conditional Use
Avenue Auto Co LLC, Applicant
CU-001486-2021

Submitted to: Portland Planning Board **Public Hearing Date:** September 14, 2021	**Prepared by:** Shukria Wiar **Date:** September 10, 2021

I. INTRODUCTION

Avenue Auto Co LLC is seeking a Conditional Use permit to facilitate the conversion of approximately 5,300 square feet of vacant space within an existing building into an automobile dealership that would include an indoor showroom for approximately seven specialty vintage automobiles at 803R Forest Avenue.

The site is located in a B-2 Community Business zone, where automobile dealerships are listed as a conditional use. Therefore this application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Conditional Use Standards, Section 6.5.2 and 6.5.6.A.

Figure 1 Project Aerial. Source Google Earth

The Planning and Urban Development Department mailed 105 notices advertising this meeting to property owners within 500 feet of the site and to interested citizens. A legal advertisement ran in the August 31, 2021 and September 7, 2021 editions of the *Portland Press Herald*. Neighborhood meetings are not required for conditional use applications

Due to the relatively minor nature of the proposal this application is being brought directly to the Planning Board for a Public Hearing.

Applicant: Avenue Auto Co LLC
Applicant Representative: Whipple-Callender Architects

II. REQUIRED REVIEWS

Review	*Applicable Standards*
Conditional Use – Automobile Dealership	Section 6.5.6.A
General Conditional Uses	Section 6.5

III. PROJECT DATA:

Existing Zoning	B-2 Community Business
Existing Use	Vacant

Proposed Use	Automobile Sales
Previous Use	Commercial
Required Minimum Lot Area:	10,000 SF
Proposed Lot Area:	17,400 SF
Required parking:	not specified in ordinance
Proposed parking:	Three spaces for employees and customers, seven vehicles display spaces (interior)
Existing Driveways:	1 -shared
Proposed Driveways:	1 -shared

IV. EXISTING CONDITIONS

The property consists of an approximately 17,400 square foot lot that is improved with an applicant-owned, single story building with three separate commercial spaces including 803A, 803B, and 803R. 803A and 803B are occupied with existing tenants and front along Forest Avenue. 803R, the subject space is approximately 5,300 square feet and is located at the rear of the building.

The main access point is via a shared driveway which is approximately 18 feet wide that all three businesses within the building and the adjacent building located at 815 Forest Avenue utilize. Existing surface parking areas are also located on the south side of the building.

The majority of the site is paved and developed. The site has approximately 153 feet of street frontage on the east side of Forest Avenue and is bounded by Forest Avenue to the west, a single story commercial building to the north, an active rail line to the east, and two-story commercial building to the south.

Figure 2: 803 Forest Avenue Outlined in Yellow

V. PROPOSED DEVELOPMENT

No site improvements are proposed. According to the applicant, the cars for sale are mainly for a specific group of clients looking to buy antique cars. The applicant is seeking to have seven vehicles for sale at a time. No retail storefront is proposed, with all transactions to take place by appointment only. Auto repair facilities would be carried out offsite.

Vehicles would be displayed inside of the building. Vehicle access to the building would be provided via an existing overhead door and auto ramp that would provide egress/ingress into the space from the parking area.

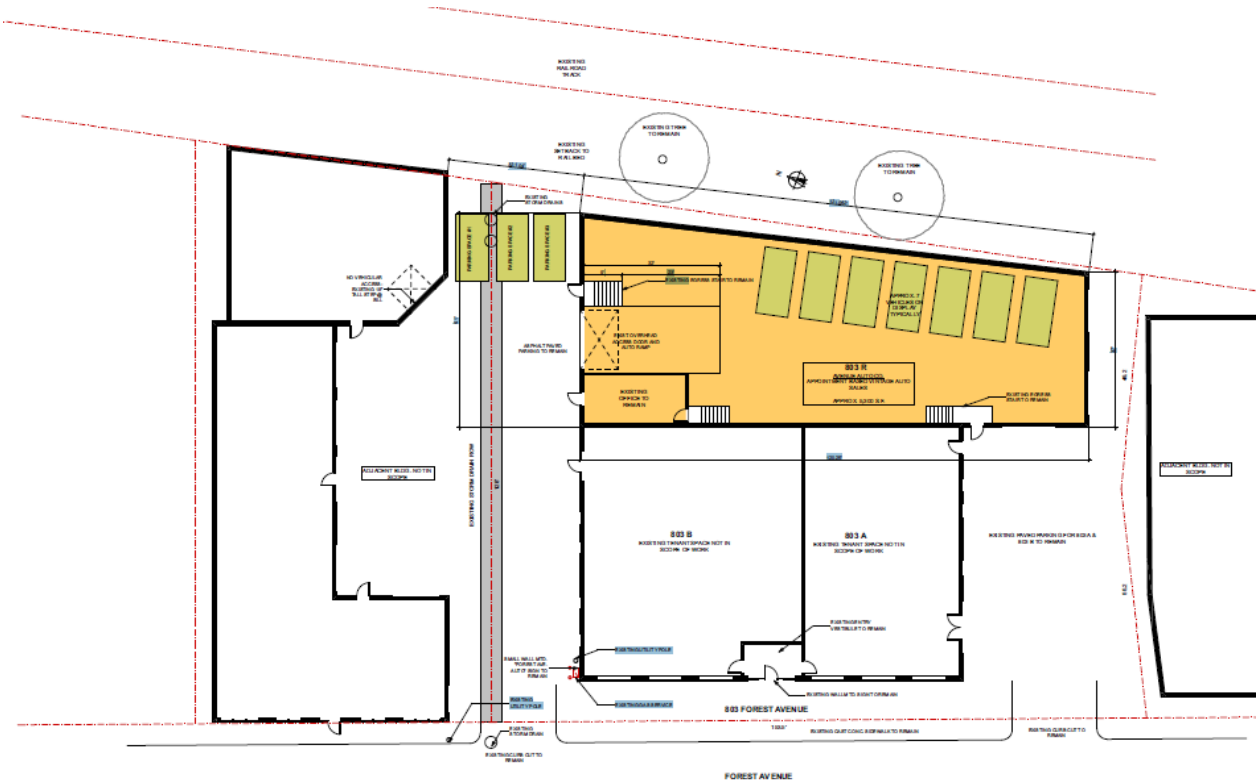


Figure 3 Site Plan

VI. PUBLIC COMMENT

The Planning Department has not received any public comments on this project.

VI. RIGHT, TITLE AND INTEREST

The applicant submitted a warranty deed. The owner of the site is Stephen Mardigan of 803 Forest, LLC, (Attachment D).

VII. STAFF REVIEW

A. ZONING ASSESSMENT

The site is located in the B-2 Community Business zone where automobile dealerships are permitted as a Conditional Use. The site is within a long band of B-2 on the east side of Forest Avenue and was reviewed for zoning and the assessment of the proposal against the applicable conditional use standards is below.

B. CONDITIONAL USE REVIEW *(Section 6.5.2)*

Section 6.5.2 *Standards. The Board shall, after review of required materials, authorize issuance of a conditional use permit, upon a showing that the proposed use, at the size and intensity contemplated at the proposed location, will not have substantially greater negative impacts than would normally occur from surrounding uses or other allowable uses in the same zoning district. The Board shall find that this standard is satisfied if it finds that:*

a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and

Staff comment: The proposed automobile dealership is located on Forest Avenue along a straight stretch of single lane traffic with good visibility. The proposal will be served by an existing shared driveway, which does

not have high trip generation and has limited loading and servicing therefore staff has confirmed that there are no concerns regarding these aspects of the proposal. Staff are requesting that the parking area be marked; and clarified that the parking spaces can be tandem parking. The Fire Prevention officer has reviewed the new use and does not take issue with the project provided that vehicle storage doesn't block access to the shared driveway and all vehicles be parked alongside the building. The travel ways need to be cleared at all times.

The building is located within a B-2 business zone. The proposed business's hours of operation are in line with general operating hours (weekdays- 9:00am to 5:30pm, Saturday- 9:00am to 12:00pm, Sunday- closed, as per State law). The majority of the site is already paved or developed with the vehicle display area being located within the building.

b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and

Staff comment: Any and all work on the vehicles will be performed at other locations off-site; the proposed use is intended to store a minimal amount of vehicles in a showroom capacity.

c. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.

Staff comment: The proposed use is anticipated to be low intensity and the applicant has not proposed any new signs nor new lighting. Clientele will be visiting the site and potential impacts of this activity are limited by the proposed hours of operation (weekdays- 9:00am to 5:30pm, Saturday- 9:00am to 12:00pm, Sunday- closed, as per State law). The cars will be displayed internally at the rear of the building and out of view from the public. The site has frontage along an active commercial corridor lined with a variety of businesses. In addition the site abuts an active railway to the east.

d. The proposed use will meet any additional zone or use-specific standards identified in Tables 6- A to 6-F and Subsections 6.5.6 and 6.5.7

Staff comment: See Paragraph C below

C. CONDITIONAL USE REVIEW *(Section 6.5.6)*

Section 6.5.2. Conditional uses of the B-2 zone identifies auto dealership as a conditional use if they meet the following requirements, and *"the Planning Board shall be substituted for the board of appeals as the reviewing authority over conditional business uses"*. The applicant has submitted a conditional use application (Attachment A and B) and an analysis of how the proposal complies with the conditional use standards in Attachment C. Section 6.5.6 specifies (in relation to automobile dealerships):

> *In addition to the general conditional use standards, the following standards shall apply to specific conditional uses*

The requirements taken from Section 6.5.6 are in italics below, together with a staff comment in respect of the proposals.

1. *Signs: Signs shall not adversely affect visibility at intersections or access drives. Such signs shall be constructed, installed and maintained so as to ensure the safety of the public. Such signs shall advertise only services of goods available on the premises.*

Staff comment: The applicant is not proposing any signs as part of the current application, as all business is to be conducted by appointment only. There is an existing attached sign on the building along Forest Ave.

2. *Circulation: No ingress and egress driveways shall be located within thirty (30) feet from an intersection. No entrance or exit for vehicles shall be in such proximity to a playground, school, church, other places of public assembly, or any residential zone that the nearness poses a threat or potential danger to the safety of the public.*

Staff comment: The existing driveways meet this requirement. The driveway location is approximately 250 feet from the closest intersection. The site is not within proximity to a playground, school, church, or other place of public assembly that would pose a threat or potential danger to the safety of the public.

3. *A landscaped buffer, no less than five (5) feet wide, shall be located along street frontages (excluding driveways). The buffer shall consist of a variety of plantings in accordance with the City of Portland Technical Manual.*

Staff comment: 803 Forest Avenue is an existing building that includes two existing businesses within the front two commercial spaces. The proposed conditional use will facilitate the conversion of a vacant commercial space located within the rear of the building. Therefore this standard is not applicable.

VIII. STAFF RECOMMENDATIONS

Staff recommends that the Planning Board approve the Auto Dealership conditional use with the proposed conditions of approval.

IX. PROPOSED MOTIONS FOR THE PLANNING BOARD'S CONSIDERATION

A. CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on September 14, 2021 for application CU-001486-2021, relevant to Portland's Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board finds that the proposed conditional use for Avenue Auto Co., LLC at 803R Forest Avenue in the B-2 zone [does / does not] meet the standards of Section 6.5.2 and the standards of Section 6.5.6 for the B-2 zone, subject to the following condition:

1. That the applicant shall mark the parking spaces and be responsible for maintaining travel lane/parking aisle widths on their portion of the site.

ATTACHMENTS

Public Comments:

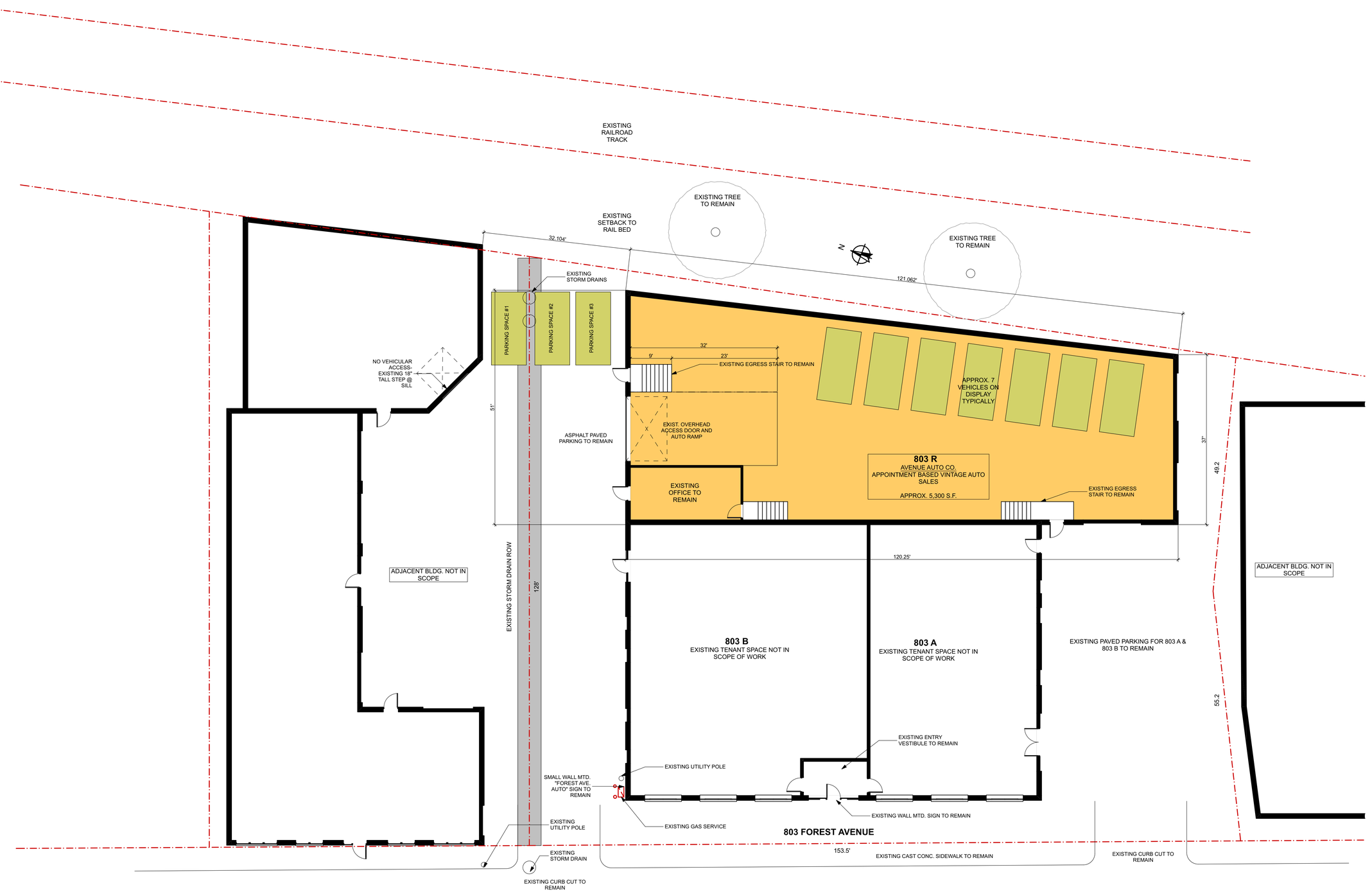
- None

Applicants submittal

A. 803R Forest Ave - Submittal Cover Letter
B. Avenue Auto Co LLC - 803R Forest Ave - Submittal Cover Letter
C. Conditional Use Criteria
D. Deed
E. Project Description

Plans

Plan 1. 5.27.21 site plan 803 Forest Ave
Plan 2. Parcel Plan
Plan 3. Project Plan



1 A1.1 SITE PLAN
SCALE: 1" = 10'

AVENUE AUTO CO. LLC

803R FOREST AVENUE, PORTLAND, MAINE

WHIPPLE CALLENDER ARCHITECTS

136 PLEASANT AVE.
PORTLAND, ME 04103
P 207.775.2696
F 207.775.3631
www.whipplecallender.com

MARK	DATE	DESCRIPTION

DATE: 5/27/21
CHECKED BY: NPC
DRAWN BY: JD
JOB: FAM
SHEET TITLE: 1. SITE PLAN

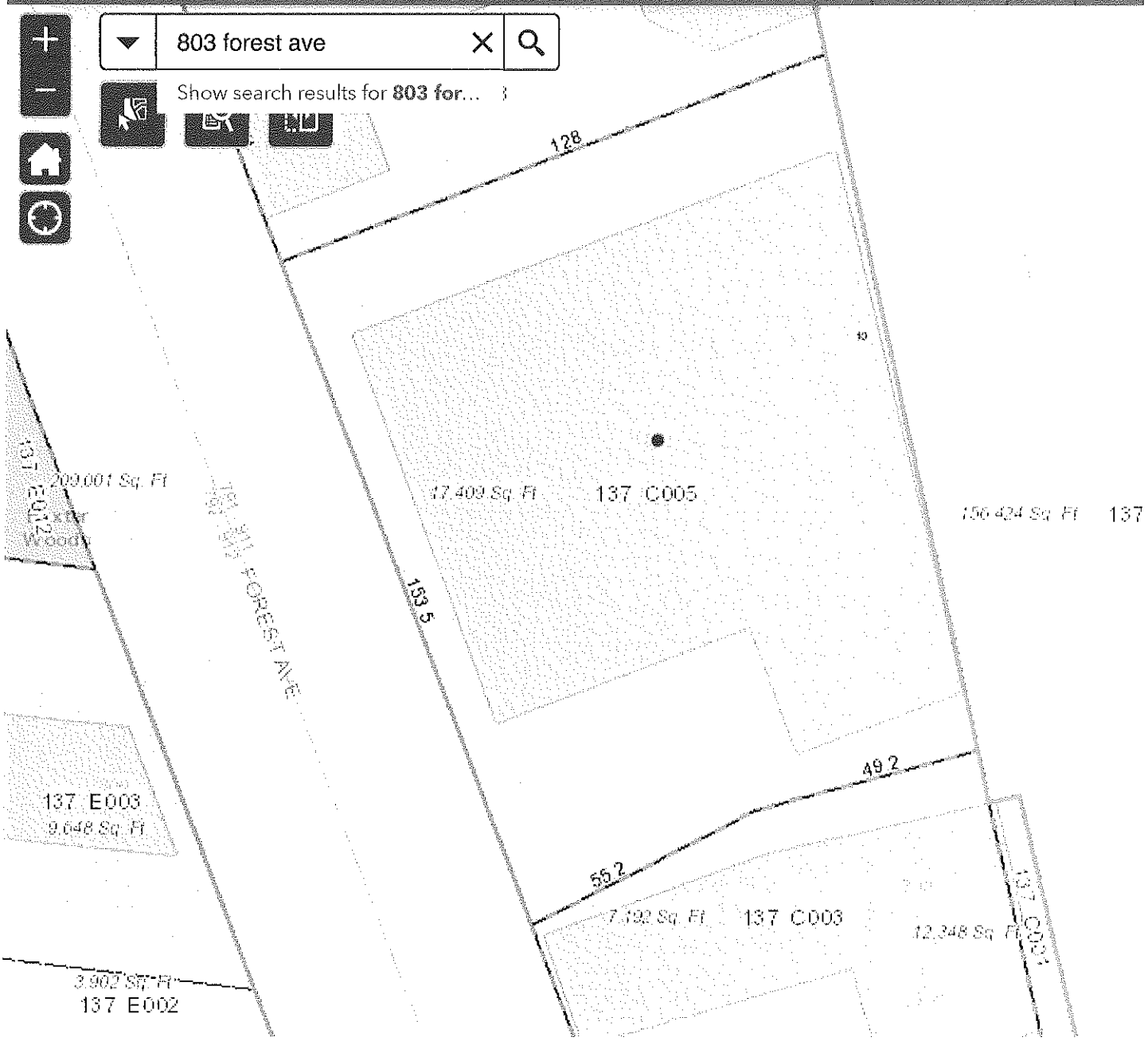
A1.1

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF WHIPPLE CALLENDER ARCHITECTS. IT SHALL NOT BE USED FOR ANY OTHER PURPOSE THAT FOR WHICH IT IS SPECIFICALLY FURNISHED

A1.1 1. SITE PLAN : Plotted on 5/27/21 at 9:49 AM by Joe Delaney. File Path: /Volumes/WCA Expansion Drive-1/ WCA Projects/2021 Projects/FAM 803 Forest Ave - Mardigan /FAM ArchiCAD Models/FAM Model v24.pln

3

City of Portland Maine Parcel Viewer



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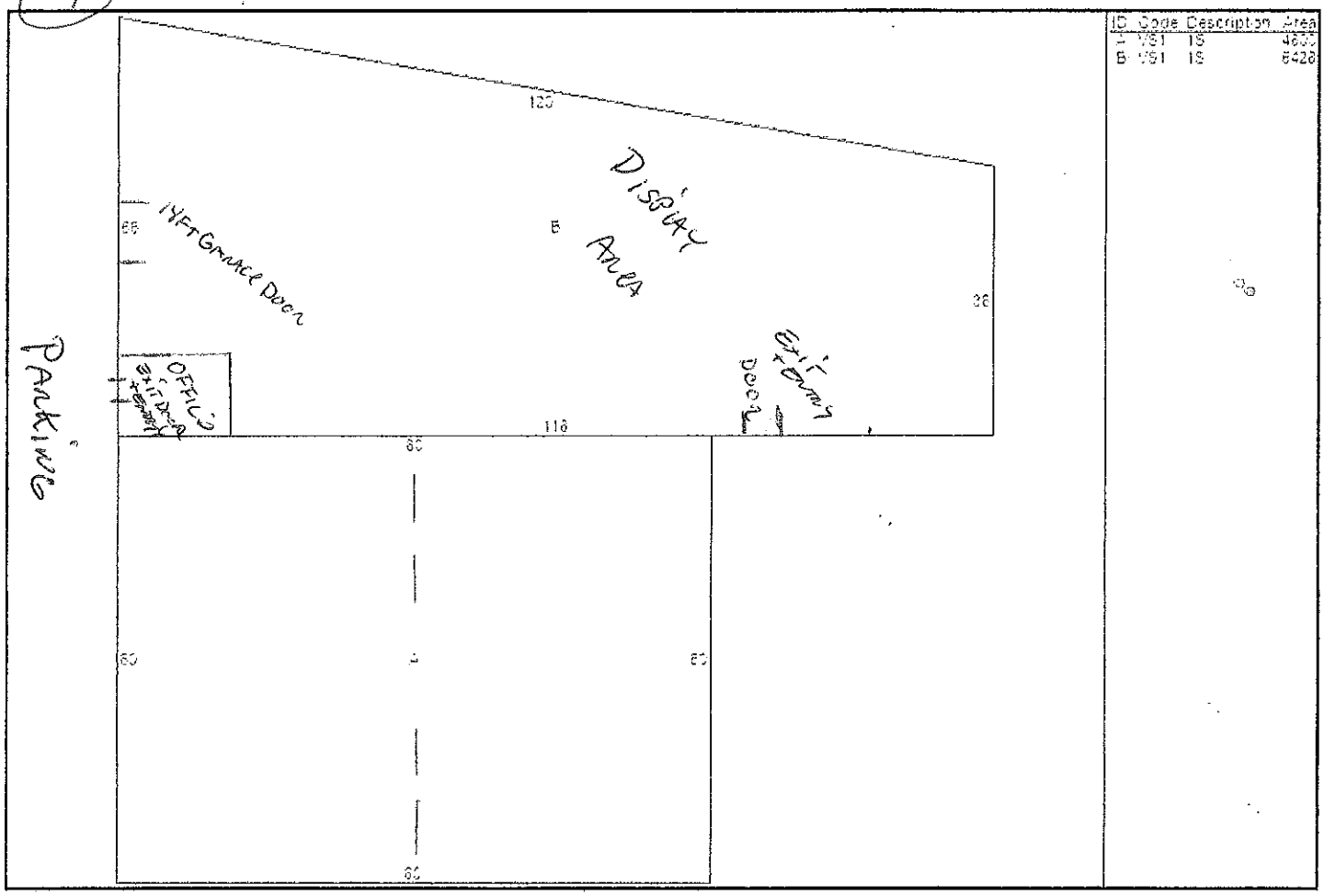

FOREST AVENUE PORTLAND

CHANGE OF LOCATION
AVENUE AUTO CO. UC 717

WHIPPLE-CALLENDER ARCHITECTS

May 24, 2021

City of Portland Planning Department
c/o James Rather
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

RE: Avenue Auto Co. LLC
803R Forest Avenue
Chart, Block, Lot: 137-C-5

Dear James:

We are pleased to submit this Conditional Use Application and supporting material for Avenue Auto Co. LLC to relocate to 803R Forest Avenue.

The property containing 803R Forest Avenue is an existing single story business property fully owned by 803 Forest Ave. LLC, whose sole member is Stephen E. Mardigan. The proposal is a specialty used car dealership catering to vintage automobile collectors by appointment.

The property has three tenant spaces and is fully sprinkled. The entire business will be inside the existing building at 803R Forest Avenue, which is set back against the railroad tracks and has no road frontage on Forest Avenue. Spaces 803A and 803B are occupied business spaces with frontage on Forest Avenue. The entrance is located down a shared a driveway with 815 Forest Ave, which is also fully owned by Mr. Mardigan. There is an attached site plan showing existing conditions with planned layout of the dealership. It will be an inside showroom of approximately 7 vintage automobiles with no workshop.

Conditional use standards and criteria are addressed as follows:

6.5.2 General conditional use standards

A. The volume and type of traffic to be generated will not be significantly greater than those of other businesses in the surrounding area. The dealership will be dealing with low volume traffic due to the nature of the specialized vehicles being sold. The existing fully paved driveway and parking lot between the proposed business and adjacent building (also owned by Mr. Mardigan) has room for 10-15 parking spaces, and all vehicles for sale will be displayed inside of the building. There will not be any on site repairs or test driving of the vintage automobiles, so parking needs and traffic will be minimal.

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B. There will be no on-site repairs or bodywork of the vehicles. Being a showroom only means there will not be unsanitary or harmful conditions from noise, dust, sewage disposal, emissions, odor, litter or bulky waste. There will not be an exterior display lot with high intensity lighting, so lights and glare will not be an issue.

C. The existing garage door and entry to the proposed business are off a side alley that the owner has recently improved and made consistent in exterior color and materials. The site is existing paved driveway and parking lot and will remain as such. There will not be material storage outside, no large deliveries, and no exterior storage of vehicles so there should be no impact on surrounding properties.

6.5.6 Supplemental use-specific conditional use standards

A. Automobile, boat, and related dealerships and auto service stations.

2. Signs will not adversely affect visibility at intersections or access drives. There is a flat wall-mounted sign on the Forest Avenue side of the building advertising the business, and a small metal directional sign on the side of the building, as shown below. The Avenue Auto Co. sign over the door previously hung at 745 Forest Avenue

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3. The existing driveway for both ingress and egress is not within 30 feet of an intersection or in proximity any public assembly area or residential area that would pose a threat or potential danger to the safety of the public.
4. The only street frontage that is not existing building footprint is the 30' wide existing driveway. There is no room for a landscape buffer without encroaching on the driveway and existing gas and electrical services on the side of each building.

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5. There is no car wash, so not concerns about tracking of residual waters into the street.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

I. Cover Letter
II. Conditional Use -Planning Board Review Submission Checklist
III. Site Plan
IV. Evidence of Right, Title and Interest

Thank you for considering Mr. Mardigan's conditional use submission for locating Avenue Auto Co. LLC at 803R Forest Avenue. If there are any questions or concerns with the proposal or attached materials, please contact me or Stephen Mardigan.

Sincerely,
Nick Canedy

WHIPPLE | CALLENDER ARCHITECTS

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CITY OF PORTLAND
Planning & Urban Development Department

CONDITIONAL USE – PLANNING BOARD REVIEW
SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

Conditional uses are listed in the land use code for each zone. The applicant must address the general standards as well as any use- or zone-based conditional use standards contained in Article 6.5 of the land use code in the written application.

GENERAL APPLICATION DOCUMENTS		
(Yes)	N/A	**Project Description** • Cover letter with detailed project description
(Yes)	N/A	**Completed Checklist – Conditional Use** (this document)
Yes	(N/A)	**Evidence of Right, Title and Interest** HAS OWNED PROPERTY FOR MUCH MORE THAN 6 MO. • Deeds, leases, or purchase and sales agreements
CONDITIONAL USE STANDARDS AND CRITERIA		
(Yes)	N/A	**Traffic** • Demonstrate that the volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the zone.
(Yes)	N/A	**Environmental Impacts** • Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
(Yes)	N/A	**Design and Operation** • Demonstrate that the design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
(Yes)	N/A	**Use- and Zone-Specific Criteria** • Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

May 27, 2021

City of Portland Planning Department
c/o James Rather
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

RE: Avenue Auto Co. LLC
803R Forest Avenue
Chart, Block, Lot: 137-C-5

Dear James:

We are pleased to submit this Conditional Use Application and supporting material for Avenue Auto Co. LLC to relocate to 803R Forest Avenue.

The property containing 803R Forest Avenue is an existing single story business property fully owned by 803 Forest Ave. LLC, whose sole member is Stephen E. Mardigan. The proposal is a specialty used car dealership catering to vintage automobile collectors by appointment.

The property has three tenant spaces and is fully sprinkled. The entire business will be inside the existing building at 803R Forest Avenue, which is set back against the railroad tracks and has no road frontage on Forest Avenue. Spaces 803A and 803B are occupied business spaces with frontage on Forest Avenue. The entrance is located down a shared a driveway with 815 Forest Ave, which is also fully owned by Mr. Mardigan. There is an attached site plan showing existing conditions with planned layout of the dealership. It will be an inside showroom of approximately 7 vintage automobiles with no workshop.

Conditional use standards and criteria are addressed as follows:

6.5.2 General conditional use standards

A. The volume and type of traffic to be generated will not be significantly greater than those of other businesses in the surrounding area. The dealership will create low volume traffic due to the nature of the specialized vehicles being sold. The existing fully paved driveway and parking lot between the proposed business and adjacent building (also owned by Mr. Mardigan)will remain. It has room for 10-15 parking spaces, and all vehicles for sale will be displayed inside of the building. There will not be any on site repairs or test driving of the vintage automobiles, so parking needs and traffic will be minimal. The three exterior parking

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spaces indicated on the plan will be available to customers who will arrive by appointment to the showroom.

B. There will be no on-site repairs or bodywork of the vehicles. Being a dedicated showroom means there will not be unsanitary or harmful conditions from noise, dust, sewage disposal, emissions, odor, litter or bulky waste. There will not be an exterior display lot with high intensity lighting, so lights and glare will not be an issue.

C. The existing garage door and entry to the proposed business are off a side alley that the owner has recently improved and made consistent in exterior color and materials. The site is existing paved driveway and parking lot and will remain as such. There will not be material storage outside, no large deliveries, and no exterior storage of vehicles so there should be no impact on surrounding properties. The owner currently handles waste privately and will continue to do so. We are not proposing outdoor waste receptacles. The low volume nature of traffic to the showroom should be less than surrounding businesses.

6.5.6 Supplemental use-specific conditional use standards

A. Automobile, boat, and related dealerships and auto service stations.

2. The existing signs will not adversely affect visibility at intersections or access drives. There is a flat wall-mounted sign on the Forest Avenue side of the building advertising the business, and a small metal directional sign on the side of the building, as shown below. The Avenue Auto Co. sign over the door previously hung at 745 Forest Avenue.

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3. The existing driveway for both ingress and egress is not within 30 feet of an intersection or in proximity any public assembly area or residential area that would pose a threat or potential danger to the safety of the public.
4. The only street frontage that is not existing building facade is the 30' wide existing driveway. There is no room for a landscape buffer without encroaching on the driveway and existing gas and electrical services located on the side of each building.

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5. There is no car wash, so no concerns about tracking of residual waters into the street.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

I. Cover Letter
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III. Site Plan

Thank you for considering Mr. Mardigan's conditional use submission for locating Avenue Auto Co. LLC at 803R Forest Avenue. If there are any questions or concerns with the proposal or attached materials, please contact me or Stephen Mardigan.

Sincerely,

Nick Canedy

WHIPPLE | CALLENDER ARCHITECTS

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803R Forest Ave

This will be a Used Car Dealership catering to Vintage Automobile Collectors. It will be entirely inside the 5000 sq ft + showroom.

Traffic-

I own the Commercial building next door and the paved driveway/parking lot between them.
There will be low traffic volume due to the type of specialized vehicle I will be selling.
The parking lot has ample parking 10-15 spaces.

Environmental Impact-

none

Design and Operation-

Inside Showroom
no trash or waste will be generated
no delivery of any kind
any and all work done on vehicles will be sublet to vendors
There is a sign attached to the building-none will be erected

Zone Criteria-

803 Forest LLC is the owner of building I have 100% ownership of the LLC and the only member

The State of Maine Motor Vehicle Division has approved it and is waiting on city approval

WARRANTY DEED

STEPHEN E. MARDIGAN

of 460 Baxter Blvd., Portland, Maine 04103

for consideration paid, grants to

803 FOREST, LLC, a Maine limited liability company

with a mailing address of 460 Baxter Blvd., Portland, Maine 04103, the following described real property in the City of ~~South~~ Portland, County of Cumberland and State of Maine:

See Exhibit A attached hereto and made a part hereof

Also hereby conveying all rights, easements, privileges, and appurtenances, belonging to the premises hereinabove described.

WITNESS my hand and seal this 13th day of November, 2018.

WITNESS

_____

_____
STEPHEN E. MARDIGAN

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

Personally appeared before me STEPHEN E. MARDIGAN, and acknowledged the foregoing instrument to be their free act and deed on November 13, 2018.

Before me,

_____
Notary Public / Attorney-at-Law

Print Name: James A. Hopkinson

My commission expires: _____

EXHIBIT A
(803 Forest Avenue, Portland)

A certain lot or parcel of land together with the buildings thereon situated in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at an iron pipe in the Easterly sideline of Forest Avenue where the Southwesterly corner of the old scales were formerly located, said point being described in a mortgage deed from Allan Smith to the Casco Mercantile Trust Company, recorded in the Cumberland County Registry of Deeds in Book 1122, Page 225;

Thence running Northerly and along the Easterly sideline of Forest Avenue a distance of Two Hundred Twenty-four and five-tenths feet (224.5') to an iron pipe said pipe being Three Hundred Twenty-two and three-tenths feet (322.3') Southerly from a stone monument marking an angle in said line of Forest Avenue;

Thence running Easterly and making an included angle of Ninety Degrees and Twelve Minutes (90° 12') with the last described course, a distance of One Hundred Thirty-eight and four-tenths feet (138.4') to a point on the Westerly sideline of the right-of-way of the Maine Central Railroad;

Thence running Southerly and along said sideline of said right-of-way to a pipe near the Northerly face of the old power house, said pipe is One and two-tenths feet (1.2') from the Northeasterly corner of said building;

Thence running Westerly and along the Northerly face of said power house, a distance of Forty-nine and two tenths feet (49.2') to an angle in the brick wall;

Thence again running Westerly and by the wall of a brick building adjacent to the power house and the continuation thereof a distance of Fifty-five and two-tenths feet (55.2') to an iron pipe in the Easterly sideline of Forest Avenue and the point of beginning.

Subject to the right-of-way granted to the City of Portland as set forth in deed dated September 6, 1940 and recorded in said Registry of Deeds in Book 1615, Page 378.

Excepting from the foregoing premises so much thereof as was previously conveyed by Eleanor R. Leavitt to 815 Forest Avenue Associates by deed dated December 26, 1986 and recorded in said Registry in Book 7568, Page 108, and said premises are hereby conveyed together with and subject to the easements and covenants set forth in said deed.

For title reference see Deed given by Michael D. Sangillo to L B Properties LLC, dated September 13, 2007 and recorded in the Cumberland County Registry of Deeds in Book 25466, Page 339.

For title reference see deed given by L B Properties LLC to Stephen E. Mardigan dated june 24, 2011 and recorded in the Cumberland County Registry of Deeds in Book 28783, Page 230.

1

November 2020

I have been a licensed Used Car Dealer in Portland since 1979. I basically deal in antique automobiles such as classic Corvettes, T-birds etc. All vehicles and the entire Dealership will inside the building at 803R Forest Ave. Any and all repairs will be sublet out to vendors, i.e mechanical and autobody work. It will be owned and operated by Avenue Auto Co LLC, sole member Stephen E. Mardigan.

PLANNING BOARD REPORT
PORTLAND, MAINE

654 Riverside Street, Homeless Services Center
PL-001682-2021, Major Site Plan and Conditional Use
DC Predevelopment LLC and City of Portland, Applicant

Submitted to: Portland Planning Board **Public Hearing Date:** September 14, 2021	**Prepared by:** Matthew Grooms, Senior Planner **Date:** September 10, 2021

INTRODUCTION

DC Predevelopment LLC and the City of Portland have submitted a Major Site Plan and Conditional Use application for a new Homeless Services Center (HSC) with on-site kitchen, dining area, staff offices, health clinic, outdoor recreational spaces and capacity for up to 208 overnight guests. The development would be located at 654 Riverside Street within both the Industrial Moderate (I-M) and Industrial High-Impact (I-H) zones in the Riverton neighborhood.

The Planning Board has held two workshops on this application; the first on July 27, 2021 where an initial overview of the project was provided, and the second on August 24, 2021 which focused primarily on the HSC management plan and focused areas of the site plan review. Based upon the completeness of this application and its compliance with relevant site plan and conditional use standards, the City referred this application for a public hearing on September 14, 2021.

This public hearing was noticed to 62 neighbors within 1,000 feet of the project site, and interested parties. The public notice appeared in the *Portland Press-Herald* on August 31st and September 7th, 2021. As of the writing of this report, the Planning Department has received 24 public comments. The applicant held their required neighborhood meeting on Monday, July 26th, and a second neighborhood meeting on August 16,

Figure 1: Project Site off of Riverside Street

2021. Meeting materials are provided as Attachment R.

Applicant: DC Predevelopment LLC and City of Portland
Agent and Civil Engineer: Steve Bushey, Gorrill Palmer
Architect: Winton Scott Architects
Landscape Architect: Aceto Landscape Architects

I. PROJECT REVIEWS

Applicant's Proposal	Applicable Standards
New construction over 20,000 sf in Industrial Zone	Article 14.6 Site Plan Review Standards
Conditional Use Review for Emergency Shelters	Article 6.5.2 and 6.5.6.B
Site Location of Development Review	Section 14.3 Technical Manual
Waivers	**Discussion of Waiver Request**
Tech Manual Section 5.III – Ch. 500 Flooding Standard	Applicant Request: The site discharges to the low end of the Presumpscot River which is considered a major river segment, therefore quantity control is not required. Staff Recommendation: Staff support this waiver request given that the proposed stormwater management system will result in reduction of flow, and incorporates further emergency spillway design into each of the proposed stormwater treatment measures to ensure a stabilized place for overflow in the event that there is a large storm event.

II. PROJECT DATA

SUBJECT	*DATA*
Total area of the site	28.92 acres
Total Disturbed Area	226,512 sq ft
Existing Zoning	I-M (Industrial Moderate), I-H (Industrial High-Impact)
Existing Use	Undeveloped with communications tower
Proposed Use	Emergency Shelter with associated kitchen, dining hall, staff office, recreational facilities and health clinic
Impervious Surface Area	

--Existing --Proposed --Net Change	17,021 sq ft 138,573 sq ft +121,552 sq ft
Building Footprint --Existing --Proposed --Net Change	 0 sq ft 51,690 sq ft + 51,690 sq ft
Building Floor Area --Existing --Proposed -Net Change	 0 sq ft 51,690 sq ft + 51,690 sq ft
Number of Beds	208
Parking Spaces	56
Bicycle parking Spaces	40

III. BACKGROUND AND EXISTING CONDITIONS

A. Site Selection Process

As described by the City of Portland's Health and Human Services Department, the current adult shelter at Oxford Street, which is located in the Bayside neighborhood, is poorly configured, does not have sufficient day space to accommodate residents, and is unable to offer meals or sufficient services on site. The building has three floors which require almost double the number of staff who could oversee guests in a single- story building designed specifically to shelter guests. This facility also has cramped sleeping space which necessitates the use of floor mats rather than cots and utilizes a large area for sleeping in the eaves of the building.

Recognizing the need for additional shelter capacity, as well as new, modern shelter facilities, the Portland City Council, in a multi-year process, undertook the effort of identifying a new municipal shelter location in 2017. In support of this effort to site and develop a new municipal shelter facility, and expand opportunities for emergency shelters outside of downtown, the City amended the Land Use Code in 2017 **(Order 252-16/17)** Passage: 8 – 0 (Duson absent) to allow emergency shelters in six additional commercial and industrial zones (the B-4, B-5, I-L, I-Lb, I-M, and I-H zones, in addition to the B-3 zone). At the time, new operational controls, such as requirements for a management plan, basic design guidelines related to facility and site layout, and access requirements for public transportation, were also introduced as conditional use standards.

In 2019, the Portland City Council, in looking at City-owned property well-suited for new shelter development, selected a site off of Riverside Street (654 Riverside Street) for the future development of an emergency shelter with complementary on-site services, **Order 248-18/19** passed 5-4 (Cook, Ali, Costa and Strimling, opposed). During the February 3, 2020 City Council meeting, the City Council passed **Resolve 7-19/20,** 6-2 vote in favor (Cook, Costa opposed, Ali absent) outlining Policy Goals for the City of Portland's Single Adult Shelter Facility. The resolution outlined policy goals to provide staff with guidance on Council objectives as the City planned for its new homeless service center and included guidance to ensure that the

new facility would be built with ample capacity to accommodate approximately 200 individuals, which was the average nightly census for the years (2017 – 2019).

In early 2021, the City released an RFP soliciting proposals for the private development of a new facility implementing emergency shelter best practices, and on May 18, 2021, selected Developers Collaborative to enter into a public-private agreement to support construction of the proposed Homeless Services Center.

B. Site Conditions

The development site totals approximately 28.92 acres and is located at 638/654 Riverside Street, with the proposed parcel bifurcated by both the I-H and I-M Industrial zones. The surrounding context is predominantly industrial and commercial in nature, characterized by warehouses and expansive yard spaces utilized for vehicle and equipment storage. In addition, there are residential properties proximate to the site along Riverside Street within an existing R-5 zone, including single-family homes and the Terrace Pond Apartment Complex just to north at the intersection of Riverside Street and Forest Avenue. The project site backs up to a forested area that borders the Presumpscot River, which is located to the north and west of the development site and is within a Resource Protection zone (RPZ). This forested area is publicly accessible via a trail that is maintained by Portland Trails, with trailhead located immediately to the north of the subject parcel.

Figure 2: View of the project site from Riverside Street. Note, public sidewalk along west side of Riverside St. does not continue north of the driveway seen here.

The site itself is largely undeveloped, aside from a City-owned communications tower at the interior corner of the site, which supports municipal emergency operations. The remaining land area is mostly unimproved covered with grass and emergent tree vegetation. Away from the proposed development area, much of the site is heavily forested, and falls within existing conservation easements.

IV. PROPOSED DEVELOPMENT

The new Homeless Services Center is a 51,690 square foot, single-story building with capacity for up to 208 overnight guests, a kitchen equipped to provide all guests with three meals per day, associated dining hall, health clinic managed by Greater Portland Health, a dedicated area for staff offices and meeting spaces, and both guest and staff locker areas. Sleeping areas would be divided between a women's dormitory and a men's dormitory. The entrance to the facility features a secure check point, where guests would be screened, and may deposit belongings within the designated locker area before entering. Within the facility, dedicated observation areas are set up so that staff may efficiently observe activity in all common areas with minimal personnel. Other features of the facility include a bicycle storage room, bathroom and shower

facilities, multi-purpose meeting rooms for guest use, and laundry facilities as well as a day room/cafeteria with 212 seats.

The building's design reflects both its residential and institutional nature, and makes use of a combination of small, scaled windows and larger glass walls to bring in natural light and connect the building to outdoor areas. The building's front entrance is articulated by a large covered porch area that emphasizes the principal entry point and makes the building human scaled.

Looking outside of the building, the development also includes several programmed outdoor areas, including two plazas at the front and south end of the building, that may be utilized by guests for congregation, participation in various activities, and gardening. At the front of the building is a parking lot for use by staff, service providers and clients with space for 56 vehicles. This lot includes 12 electric vehicle charging posts, with conduit run for the remaining spaces to enable future installation of electric vehicle charging posts. Pedestrian access to the site is provided via a 12 foot wide bituminous sidewalk that extends out to Riverside Street, and which runs parallel to a 24 foot wide two-way driveway. Emergency access is provided via a 20-foot-wide, reinforced turf fire lane that provides access to all four sides of the building. The site plan also shows that existing parking for the Portland Trails trailhead will remain at the entrance to the site.

With regards to site landscaping, the project features substantial buffer plantings along its southerly and easterly property boundaries, where the project site directly abuts existing development. The proposed planting schedule features a mixture of evergreen and deciduous trees, shrubs, and ornamental grasses and perennials. Away from property boundaries, landscaping is largely clustered in and around the two plaza areas and then within the front yard space. The development will also provide fencing around much of the perimeter, consisting of existing chain-link fence to the south where the property abuts existing development, a new 6-foot fence along the westerly property boundary, and a 4-foot fence along the northerly property boundary. This fencing is primarily intended to demarcate property limits, and will remain open at the entrance to the site. A gate will be installed which will provide direct access from the HSC campus to the Portland Trails trail system.

This project will result in an increase in newly disturbed area, totaling 5.8 acres, and impervious surface, totaling approximately 3.34 acres. Together, this triggers Site Location of Development (SLODA) review under State statute, in addition to required compliance with Maine DEP Ch. 500 erosion control, flooding and water quality standards. The applicant is requesting a waiver of the Flooding standard, given the project's close proximity to the Presumpscot River and that water body's available receiving capacity. Level-lip spreaders are placed so as to direct stormwater away from areas of steep slope and existing water courses down to the Presumpscot River, in order to mitigate against erosion. To ensure water quality, the plan depicts multiple vegetated biofilters, grassed under-drained filters, and an increase in porous surfaces to allow for infiltration.

V. PUBLIC COMMENT

As of the writing of this memorandum, 24 public comments (Attachment 4) have been received regarding this application. These comments are written primarily in opposition to this proposal, and are generally focused on the site's perceived remoteness from social resources and employment opportunities, concerns

regarding the size and open layout of the facility with respect to trauma informed design principles, public transit and pedestrian access, buffering and security between the site and adjacent conservation area, stormwater and erosion concerns at the rear of the site upslope from the Presumpscot River, housing of non-service animals, and questions regarding the Voluntary Response Action Program (VRAP) agreement for the site, dating from 2010. These comments are addressed in detail throughout this report.

VI. STAFF REVIEW

A. Right, Title and Interest

The subject property is City-owned, and will remain under City ownership once the development is complete. As evidence of right, title, and interest, the applicant has provided the City Council order authorizing DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process related to the Homeless Services Center. The City has also provided a quitclaim deed with covenant demonstrating ownership of the property.

B. Zoning Assessment

1. **Consistency with I-H and I-M Zoning Standards -** The development site is split between both the Industrial Moderate (I-M) and Industrial High-Impact zone (I-H), both of which permit emergency shelters as a conditional use. With regards to dimensional requirements, the project fully meets all dimensional restrictions for both zones as shown below.

	Required		Proposed
	IH	IM	
Lot Size			28.92 acres
Minimum Street Frontage	60 feet	60 feet	95.1 feet
Front Yard Minimum	25 feet	* 22 feet	608 feet
Rear Yard	35 feet	** 22 feet	50 feet
Side Street Setback	35 feet	** 22 feet	38 feet
Maximum Height	75 feet	75 feet	22 feet
Maximum Impervious Area	85%	75%	11.5%
Pavement Setback	10 feet	10 feet	91 feet
Off Street Parking Spaces	15	15	56

* 1 foot for each foot of building height

** 1 foot for each foot of building height up to 25 feet except 35 feet when abutting a residential zone.

C. Conditional Use Review

1. General Conditional Use Standards (Section 6.5.2)
    a. *The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not*

substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone (Section 6.5.2.A)

Staff Finding: The development is expected to result in fewer than 100 peak hour trips, with just 22 a.m. peak hour trips anticipated, less than the threshold for a Traffic Movement Permit (TMP), and will feature 56 parking spaces, primarily for use by staff, though with additional spaces allocated for service providers, short-term delivery vehicles, and shelter clients. This amount of parking is comparable to two nearby uses, Lucas Tree Experts and Schnitzer, both of which involve regular traffic by larger service vehicles and heavy trucks. Given that these characteristics extend to other nearby uses as well, this standard is considered to be met.

b. *The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter (Section 6.5.2.B)*

Staff Finding: The proposed development is not anticipated to result in adverse impacts related to noise, glare, dust, sewage disposal, emissions to the air, odor, lighting or litter. The HSC Management Plan provides information on the facilities staffing detail. Facilities staff will be on-site between 6:00 a.m. and 2:00 a.m., with duties to include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance, and routine exterior maintenance, to maintain the facility in peak condition. Trash will be stored on-site in an enclosed dumpster, located at the edge of the loading and delivery area.

c. *The Design and Operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone (Section 6.5.2.C)*

Staff Finding: As the development is to be located in the I-M and I-H zones, which already allow for high intensity industrial land uses with significant impact to surrounding property, this standard is considered to be met. The loading and delivery of goods are to occur within a designated loading area that provides adequate space for maneuvering. The development is anticipated to have limited or no impact on surrounding property, and any potential impacts are further mitigated through extensive vegetative buffering, the installation of a full perimeter fence to restrict unauthorized access onto adjacent property, and a provision in the HSC management plan that commits shelter staff to regular checks of the surrounding property and nearby trail network. The perimeter fence will consist of existing fencing along the Lucas Tree and Suburban Propane sites, new 6-foot fencing at the rear of the property

to restrict access to the nearby Presumpscot River and steep areas of slope, and a new 4-foot post and beam fence along the northerly property boundary to demarcate the property limit and encourage guests to access the trail at either the trailhead at the entrance of the site, or the newly proposed access point adjacent to the HSC parking area, that would be accessible via a gate open during daytime hours.

d. ***The proposed use will meet any additional zone or use-specific standards identified in Tables 6-A to 6-F and Subsections 6.5.6 and 6.5.7m (Section 6.5.2.D)*** - *See conditional use standards below.*

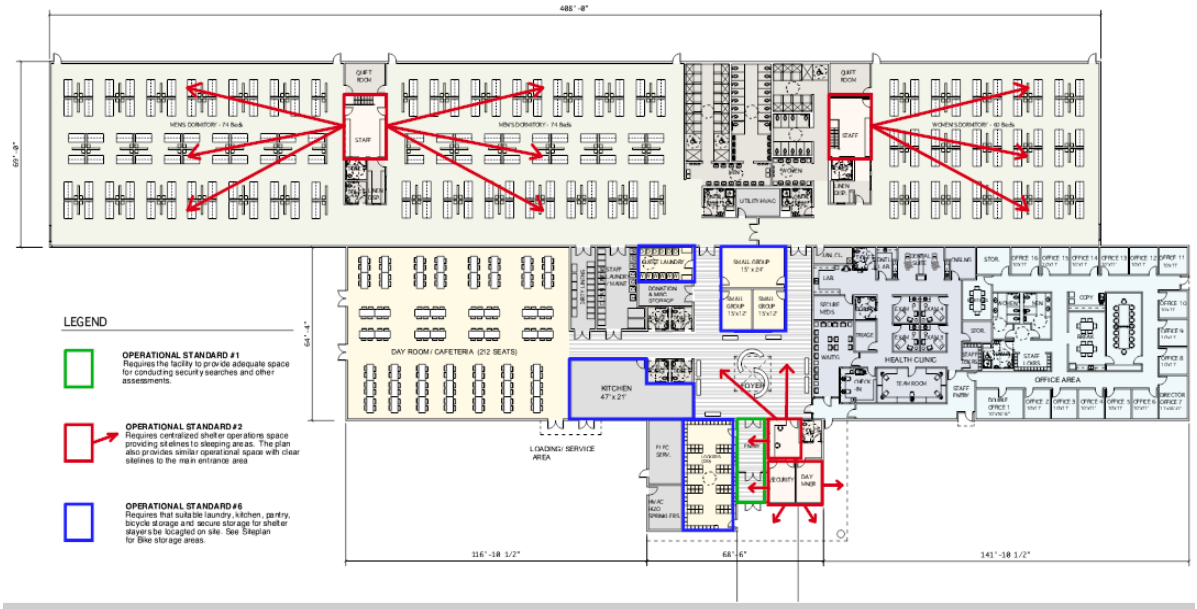

Figure 3: Operational Plan highlighting compliance with conditional use standards

2. Emergency Shelter Conditional Use Standards (Section 6.5.6.B)

a. ***The facility shall provide adequate space for conducting security searches and other assessments***

Staff Finding: A dedicated security space is provided within the building's main vestibule, where guests may be screened and may deposit belongings in a secure locker area also accessible via the main vestibule before entering the facility. This standard is considered met.

b. ***The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas***

Staff Finding: Two separate observation areas are to be developed, where staff will have clear lines of sight to the building's sleeping and common areas. This standard is considered met. Common areas will further be monitored via CCTV security cameras

posted around the facility. Camera placement locations are to be coordinated with the Portland Police Department as a condition of approval.

c. *A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.*

Staff Finding: A management plan has been provided which outlines the Homeless Services Center's commitments and protocols for all of these listed elements. This plan has been reviewed by the Portland Police Department, and the Maine State Housing Authority, and has been found to be fully in compliance with this conditional use standard.

A synopsis of the Management Plan's key elements can be found under Section VI.D of this report.

d. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs*

Staff Finding: On-site support services are discussed in the Management Plan and include employment services, housing assistance, regular access to a number of community partners (listed within plan), peer support services, and on-site health care clinic managed by Greater Portland Health. This standard is considered met.

e. Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site

Staff Finding: The proposed building would include laundry, kitchen, pantry, bicycle-storage, and secure storage facilities for shelter stayers. An approximately 980 square foot kitchen would be included as well as a guest laundry area with washers and dryers, both accessible via the main foyer. A locker area for guests is proposed and accessed via the main vestibule. An outdoor pavilion is provided in the plaza towards the entrance of the site that includes space for 40 bicycles and bicycle repair station. This standard is considered met.

f. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests*

Staff Finding: The development features two multi-purpose plaza areas set aside for client usage that include flex space, seating walls, an outdoor pavilion with seating, a chalk wall and both raised garden and healing garden. These areas are well screened

using vegetative buffers and fenced in to ensure the security and privacy of clients, and together total approximately 70,000 square feet of outdoor recreational space. This standard is considered met.

D. HSC MANAGEMENT PLAN

At the July 27th workshop, Health and Human Services staff presented the Oxford Street Shelter Management Plan, which served as a rubric for developing the emergency shelter conditional use standard, and which would directly inform the management plan for the proposed Homeless Services Center. Members of the Planning Board requested that the City create an altogether new management plan, specific to the proposed HSC facility, and have it reviewed by a qualified third party to ensure that it employs best practice.

In response to this request, Health and Human Services staff prepared a revised version of the Management Plan specific to the proposed facility at 654 Riverside Street. This plan was reviewed by the Maine State Housing Authority who found the management plan to be fully compliant with the City's conditional use standards and shelter operations best practices. The Portland Police Department also reviewed the management plan, and had minor comments related to security camera and call box placement, the recommendation to erect perimeter fencing, and confirmation that crime prevention through environmental design (CPTED) principles are employed. This plan was presented to the Planning Board at their August 24th workshop. For reference, the conditional use standard pertaining to the emergency shelter management plan is as follows:

> *A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.*

At the August 24th workshop, members of the Board requested that additional detail be provided on the HSC's conflict and neighborhood resolution procedures, and that the management plan include a commitment to monitor activity on nearby Portland Trails.

This feedback, in addition to feedback from the Police Department, has been incorporated into the newest version of the HSC Management Plan, which is detailed below.

1. Staffing and Management Responsibilities:
   A summary of the facility's proposed staffing schedule is provided as part of the management plan, which states that a member of the management team, comprised of the Shelter Director, Assistant Director of Shelter Operations and Assistant Director of Housing Services, will be present at the facility between 6 am and 11 pm, and thereafter one of these members will be on call during overnight hours. The shelter itself will have staff present 24 hours a day.

   The City has adopted a housing-first approach where placement of individuals into permanent housing is the top priority, and will have a dedicated team of staff on-site focused on helping guests

retain existing housing, navigate landlord relationships, access household needs such as food and furniture, connect with qualified healthcare professionals, and locate new housing.

The Homeless Services Center will employ a dedicated facilities team, who will be on-site between 6 am and 2 am each day, who will be responsible for ensuring that the facility is safe, clean and inviting for guests, staff and visitors. This team will be available to respond to all maintenance emergencies and coordinate with third party vendors and contractors to ensure that the facility is operating well.

Security staff will be available 24 hours a day, who will regularly perform well-being checks of the facility, patrolling both inside and outside of the shelter every 30 minutes.

In terms of training and development, the City commits that all staff, regardless of role, will undertake job specific training, which includes new employee orientation, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, language access training, diversity and inclusion training, and conflict resolution, among still other training types.

2. Client Access, Assessments and Access Restrictions

Prior to entering the Homeless Services Center, individuals will be directed to meet with City staff at the City's Health and Human Services Office at 39 Forest Avenue. Here, staff will be focused on assisting individuals in mitigating any emergencies that may necessitate entrance into the shelter facility. If no reasonable alternative option is available, individuals will be referred to the HSC and will be provided with transportation to the facility. Due to the confidential nature of the shelter's services, access to the facility is limited to service providers, staff, and guests of the facility. Once on-site, all externally accessible, non-fenced-in building entrances, shall feature security controls.

The HSC allows for individuals to select dormitory space based upon their self-identified gender. For individuals who self-identify as trans, nonbinary or gender-diverse, and who are uncomfortable in either the men's or women's dormitory, will have access to a separate sleeping space.

Programmed outdoor spaces will be fenced in, in order to maintain site control and provide a higher level of protection to those seeking emergency shelter. This fencing will be designed to fit within the facility's trauma informed design.

In accordance with the Americans with Disabilities Act (ADA), all service animals are welcome within the facility, though are required to remain on a leash or harnessed at all times. The shelter does not permit non-service animals, though does commit to assisting guests find reasonable alternative accommodation for pets and other animals during an individual's stay.

3. Transportation

The Homeless Services Center will operate a 15-passenger shuttle that will be accessible to facility guests for accessing appointments, or for guests being referred to the facility. For safety reasons, this shuttle is always operated in pairs while transporting guests. The City also commits to using

taxi vouchers, and incentivizing usage of METRO services. As part of the TDM plan, the applicant states that the HSC is working with METRO to develop a program that would provide discounted METRO bus fare, and will make bus schedules readily visible both inside and outside the facility.

4. On-Site Surveillance

   Security staff will be present on-site 24 hours a day, and the facility is designed with clear lines of sight to all sleeping and common areas to help maintain safety within the facility. Security personnel will also complete regular wellbeing checks of the facility, both inside and outside. The facility will also be fully monitored using surveillance of all common non-private areas, which will be monitored at all times from the building's security office. External lighting will also be placed around the perimeter of the building to ensure that it is well lit for arriving guests, and staff conducting safety checks.

5. Safety Measures

   All guests entering the facility are required to sign a resident contract, which outlines rules and behavioral expectations. All staff working at the facility are to be trained in verbal de-escalation tactics, are partnered with the Opportunity Alliance Crisis Response Services, and will coordinate and contact emergency first responders as necessary. In addition, all workstations are to be equipped with panic alarms for any potential emergencies.

6. Controls for Client Behavior and Noise Levels

   The Homeless Services Center is designed using trauma-informed design principles, and is open and inviting for clients so as to empower them to become fully self-reliant, and to ensure safety, security, and privacy for those seeking shelter.

   The City will continue the shelter's model of being a low barrier shelter, meaning that no identification is required at time of entry, nor income verification, or sobriety. A series of 'reasonable rules' are provided, which will be shared with shelter guests upon entry. These rules list requirements around the use of alcohol or illegal substances, smoking, weapons, violence, harassment and vandalism. If guests violate any of these rules, the shelter will reserve the right to remove that guest.

7. Neighborhood Concerns

   The Management Plan provides a neighborhood engagement strategy, which outlines steps to be taken to ensure site security, and maintain a good relationship with the surrounding neighborhood. This strategy outlines commitments for engagement within the community by shelter staff, regular attendance at a minimum of 75% of neighborhood association meetings at the request of the neighborhood association, and processes for addressing off-site incidents involving shelter guests.

   The City will also create an advisory group, consisting of representatives from the neighborhood, area businesses, Portland Trails, Portland Police Department, Homeless Services Center staff, Homeless Services Center clients, and an elected official or her/his designee. In its first year of operation, this group will meet monthly, and be chaired by a representative of the City's Executive

staff. This group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts. This group would then meet quarterly after year one.

The HSC management plan outlines a series of mechanisms that are intended to resolve neighborhood complaints which includes:

- Half-hour perimeter checks of the facility, grounds and surrounding areas, and daily checks of nearby areas of the Portland Trails system.
- Provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. A member of the management team will also be available 24/7.
- HSC will have developed relationships with other community partners that will be available to address concerns, which include The HOME Team, TOA Crisis Response Team, Portland Police Department, MEDCU and Fire Department.

8. Monitoring

The Homeless Shelter Services management team will provide the City of Portland's Health and Human Services Department with reports on a regular basis, detailing information such as the number of unique individuals at the shelter on a given day/night, length of stay, and incident reports. Other data collected includes:

- Total number of bednights accessed at the shelter.
- Number of intakes during a reporting period.
- Total number of individuals who had previously been unsheltered and staying outside in Portland.
- Total number of individuals who are defined as having long time stayer status.
- Average length of stay.
- Number of housing placements.
- Record of neighborhood concerns and resolutions.
- Summary of meetings with individual neighbors, neighborhood associations and businesses.
- Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously.
- Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes.
- Additional information requested by the Department of Health and Human Services and/or HHS Public Safety Committee, and various housing related boards and committees of the City.

E. Site Plan Review Standards – Section 14.6

Transportation Standards (Section 14.6.1)

1. *Traffic - Access, Circulation, Loading and Servicing* – The project site features a single point of ingress/egress from a two-way, 24-foot-wide driveway that extends approximately 600 linear feet into the development site, with circulation provided through the available parking area.

The development features a loading/servicing area at the front of the building to the west of the main entrance.

There is also a reinforced turf access road around the entire building, which is provided for emergency vehicle access.

Staff Finding: Per the City of Portland Technical Manual, Section 1.1, a traffic scoping meeting with City staff was held on August 5, 2021, as the development generates greater than 25 peak hour trips and is located within 0.5 miles of a high crash location. City staff facilitated this meeting and provided feedback on the construction of sidewalk, crosswalk signal and equipment improvements at the intersection of Forest Avenue and Riverside Street, and wayfinding. Staff also requested additional information on anticipated trip generation and parking demand, and site loading and servicing.

In response to this feedback, the applicant has provided a transportation demand management plan (TDM) that includes relevant information on trip generation and parking demand, and have been working closely with City staff to develop the ADA accessible route between the HSC facility and nearest transit stops. This involves the construction of a new 6-foot bituminous sidewalk along the west side of Riverside Street between the HSC site and existing extent of sidewalk near the Forest Avenue and Riverside Street intersection. In addition, portions of the existing sidewalk along the designated route would need to be repaired or replaced in order to meet City standards, and the crosswalk at this intersection would also need to be improved. A wayfinding plan has also been provided, which outlines the location of both sidewalk pavement markings, fixed sign locations, and potential signage details. Staff is recommending that finalization of this plan be made a condition of approval.

Staff also received turning templates and a written narrative describing the operation of the loading and servicing area, which staff found to be acceptable given that they demonstrated adequate space for maneuvering by service vehicles expected to service the site.

2. *Sidewalks and Public Transit Access* – The development provides direct pedestrian access between Riverside Street and the building's entrance via a 12-foot-wide bituminous sidewalk with 12-foot-wide raised crosswalks across driveway areas. In addition, the applicant is providing a new 6-foot bituminous sidewalk along the west side of Riverside Street between the HSC site and current extent of existing sidewalk. In addition, the existing sidewalk and crosswalk are to be repaired or replaced to City standards.

An important component of the emergency shelter conditional use standards is that new emergency shelters are sited within 0.5 miles of fixed public transit, and that such transit is adequately accessible. The nearest public transit route is located approximately 0.4 miles from the project site, near the intersection of Riverside Street and Forest Avenue. This requirement is met. At present, there is no accessible pedestrian route from the project site to this transit stop, as the sidewalk along the west side of Riverside Street is discontinued for approximately

875 feet to the north of the project site. Similarly, there are no defined crossing points along Riverside Street in the vicinity of the project that would enable users to access the sidewalk along the east side of Riverside Street.

Staff Finding: The applicant has agreed to construct a 6-foot wide bituminous sidewalk along the west side of Riverside Street, to fill the existing gap, and has committed to making other improvements as necessary to ensure that this route is fully ADA compliant. This will involve reconstruction of portions of the existing sidewalk along the west side of Riverside Street, and

Figure 4: Depiction of Access to Available Public Transit

replacement of existing crosswalk equipment as specified by the City's Traffic Engineer. The applicant has submitted a proposed wayfinding signage program that is intended to direct transit users to the preferred pedestrian route along the west side of Riverside Street, and deter pedestrians away from the existing sidewalk along the east side of Riverside Street. Finalization of the sidewalk plans and wayfinding plan are proposed as conditions of approval.

Parking and EV Charging – The development features parking for 56 vehicles, with 12 EV charging posts being provided to satisfy the City's requirement that 20% of new off-street surface parking be equipped with Level 2 EV chargers. Electrical conduit will be run to the remaining spaces in order to satisfy the City's requirement that all spaces be made EV-ready. In addition, an outdoor pavilion with racking space for 40 bicycles and a bicycle repair station are also provided within the outdoor plaza towards the entrance of the site.

Staff Finding: In the first workshop on this application, staff requested additional information on the proposed parking count, citing the RFP issued by the City, which called for approximately 28-30 vehicle parking spaces, and Article 18 of the Land Use Code, which specified one space per two employees for emergency shelters, which amounted to 25 parking spaces. Staff also requested additional information in order to provide a recommendation on a waiver requested from providing a transportation demand management (TDM) plan, required for commercial development exceeding 50,000 square feet of floor area.

In response, the applicant rescinded the waiver request and provided a TDM based upon the City's standard template, detailed below. This plan provided an updated staffing chart, and acknowledged that a number of parking spaces would be set aside for use by clients, service providers, facility shuttles, and delivery vehicles. The parking count was evaluated by the City's traffic engineer who found the 56 spaces provided to be appropriate.

With regards to EV charging infrastructure, this proposal fully meets City site plan and technical manual standards.

Bicycle parking is provided well in excess of what is required under Article 19 of the Land Use Code, which requires two bicycle spaces for every ten vehicle parking spaces for this use. The minimum requirement therefore is twelve bicycle spaces.

3. ***Snow Storage*** – The site plan defines several locations for snow storage. In the event that snow storage areas reach capacity, the HSC management plan commits the facility to have excess snow removed from the site.

   Staff Finding: The proposed snow storage strategy complies with the City's site plan standard.

4. ***Transportation Demand Management*** – Per Article 14.6.1.E, all commercial, institutional, or mixed-use development totaling 50,000 square feet or greater are required to provide a Transportation Demand Management (TDM) plan. This standard would apply to this project as the building's square footage totals 51,690 square feet. The applicant has provided a TDM plan based upon the template developed by the City, which estimates 22 AM peak hour trips, and 13 PM peak hour trips. The plan outlines incentives for ride sharing, discounted METRO bus fare for Center guests and employees, and bicycle storage for up to 40 bikes in an outdoor pavilion with bicycle repair station, along with shower and locker facilities for those accessing the site by bicycle.

   Staff Finding: A draft TDM plan was provided in advance of the August 24th workshop, which staff found to be generally acceptable. Staff provided feedback requesting that parking reduction targets be identified in the plan, that reduction strategies and incentives be described in greater detail, that additional discussion of nearby high crash locations at the Riverside Street and Forest Avenue intersection be provided, that carpool spaces be designated on the plan, and that bicycle storage and repair facility details be provided.

   The applicant has fully responded to staff comments in the revised TDM Plan, providing additional information on nearby high crash locations, incentive programs, and timeline for

meeting parking reduction targets (Attachment Z), Staff finds the plan as presented to meet the City's requirements.

Environmental Quality Standards (Section 14.6.2)

5. *Landscape Preservation / Site Landscaping and Screening* – The project site is bordered by forested conservation area to both the north and west, which is not anticipated to be impacted as a result of this development. Stormwater features include emergency spillways in the form of rip rap channels that will ensure water flow does not compromise the down-site slope and riverbank within the conservation area.

   With regards to site landscaping, substantial buffer plantings, comprised of trees, shrubs, ornamental grasses and perennials are proposed along the southerly and easterly property boundary, with additional landscaping proposed within the two plaza areas, a healing garden to the north of the building, at the building's rear, and within the front yard area.

   Staff Finding: In reviewing the proposed landscape plan, staff have noted that CPTED informed design necessitates the use of low bushes and shrubs in certain locations to ensure adequate visibility by facility staff. Aside from this observation, staff note the site is generously landscaped, and that substantial buffer plantings are provided along all developed property boundaries. The plan shows no areas of disturbance within on-site conservation areas, and as stated in the project description, the development area at present in almost entirely cleared. In addition, the project has a requirement to provide a minimum of five street trees, based upon approximately 200 feet of property frontage. The landscape plan shows two new trees provided at the entrance of the site along the driveway, and three existing trees immediately along the property line to the north of the driveway. Staff find these site plan and technical manual requirements for site landscaping and preservation of natural features to be met.

6. *Water Quality, Stormwater Management and Erosion Control* – This development will result in approximately 3.44 acres of new impervious surface, triggering Site Location of Development Act (SLODA) Review, for which the City has delegated review. This project is subject to Maine DEP Ch. 500 stormwater standards, related to flooding, water quality and erosion control.

   The applicant requests a waiver of the flooding standard, citing the receiving capacity of the Presumpscot River. Waivers of this type have previously been granted for other projects proximate to major waterways, including the Presumpscot River. The applicant notes that level lip spreaders will direct water flow away from areas with the steepest grade, and has incorporated emergency spillways to ensure that the slope at the rear of the property remains stable.

   A full stormwater management report was provided in advance of the August 24th workshop, which outlined several stormwater BMPs to be employed, including multiple vegetated biofilters, grassed under-drained filters, and porous surfaces. The plan includes level lip

spreaders at drainage outfalls to assure that the existing conditions are satisfactorily stable and acceptable for flow discharges from the development.

Staff Comment: The City finds the proposed stormwater management plan to be generally acceptable as provided and is recommending that the Board waive the Maine DEP Ch. 500 Flooding standard given the receiving capacity of the Presumpscot River and measures taken by the applicant to ensure the stability of the Presumpscot River bank and adjacent slope area (Attachment 2). Staff are requesting that the FocalPoint design worksheet, completed by the applicant's engineer be verified by the manufacturer. Staff have added a draft condition of approval to have this verified prior to the issuance of any building permits. Staff have also added an additional draft condition requiring that the stormwater maintenance agreement be finalized and executed prior to the issuance of any building permits.

Public Infrastructure and Community Safety Standards (Section 14.6.3)

7. *Public Safety* – The overall site is designed to ensure that both indoor and outdoor spaces can be efficiently monitored; with observation vestibules that provide staff with clear lines of sight in sleeping and common areas, low shrubbery in outdoor areas to maintain better visibility, fenced-in outdoor areas intended to provide clients with a feeling of safety and security, and security cameras monitored by security staff. Vegetated buffers also provide clients with additional privacy and a greater sense of security. A copy of the Homeless Services Center management plan has been shared with the Police Department, who provided written comment on that plan. The Police Department found the plan to be acceptable, and has agreed that their comments are either addressed or will be addressed as a condition of approval. Please see Section VI.D of this report for more information.

   The site plan also includes a 20-foot reinforced turf emergency vehicle lane that surrounds the entire building. This lane features collapsible bollards that restrict unauthorized vehicle access.

   Staff Finding: Staff reviewed the application for compliance with crime prevention through environmental design (CPTED) principles and emergency vehicle access, and provided a copy of the site plan and HSC management plan to the police department for their review. The Police Department found the plan to be acceptable, and has agreed that their comments are either addressed or will be addressed as a condition of approval. The plans provide sufficient emergency vehicle access, and staff found that the design of the site with open sight lines, low shrubbery, site lighting, and use of fencing to provide defined spaces was consistent with CPTED principles.

8. *Fire Prevention and Public Utilities* – The project site will be serviced by new underground electrical service, a 4-inch main water line with additional 6-inch fire line, 12-inch sanitary sewer and natural gas. The City has received all applicable utility 'ability to serve' letters.

   Staff Finding: The utility plan has been reviewed by City staff and found to be acceptable as provided. Staff had initially provided comments asking for additional detail on the location of a

grease trap servicing the kitchen. This information has now been provided. This standard is considered to be met.

Site Design Standards (Section 14.6.4)

9. ***Massing, Ventilation and Wind Impact and Shadows*** – The proposed building is one-story with significant separation between the proposed building and adjacent property or public spaces. Therefore, no adverse impacts related to massing, ventilation, wind or shadows are anticipated.

   Staff Finding: This site plan standard is considered met. The proposed building would be one-story and significantly separated between adjacent properties. The property does contain an existing 180-foot communications tower that is approximately 72 feet at its closest point from the HSC building. In speaking with the Fire Department, staff determined that there are no relevant setback or fall zone requirements that apply to this project.

10. ***Snow and ice loading*** – The site plan defines several locations for snow storage. In the event the snow storage areas reach capacity, the HSC management plan commits the facility to have excess snow removed from the site.

11. ***View Corridors*** – *Not applicable. The site is not located within any designated view corridors.*

12. ***Historic Resources*** – *Not applicable.* The development site is not located within or proximate to any identified historic resources.

    Staff Finding: This standard is not applicable.

13. ***Exterior Lighting*** – The development features 14 pole mounted fixtures largely clustered within the parking area, two plazas and along the driveway. The building's exterior is lit by 22 wall pack fixtures, which are evenly spread around the building's exterior for security. The City also requested that the off-site pedestrian route between the HSC and nearest transit stop be evaluated for adequate lighting. Based upon this analysis, the applicant proposed to add four additional cobrahead fixtures to existing utility poles along this route.

    Staff Finding: All lighting elements comply with site lighting standards, with lumen counts of no more than 6,696 for pole mounted fixtures (maximum permitted is 15,000 lumens), and a maximum light trespass of approximately 1.8 footcandles at the driveway entrance. Section 12.3.4 of the City Technical Manual identifies an exception for light trespass within industrial zones. All fixtures proposed are full cut-off, and installed at less than 30 feet which is the maximum permitted within an industrial zone. The requirement for site lighting and street lighting is considered met.

14. ***Noise and Vibration*** – All new HVAC equipment will be located greater than 100 feet from any nearby residential uses, and no equipment will be located within 25 feet of a property line.

Staff Finding: This development is not expected to result in adverse conditions related to noise or vibration.

15. *Construction Management Plan* – The application provides a draft construction management plan.

    Staff Finding: Staff are requesting that the applicant utilize the City's template for construction management, and as well provide additional information on whether dewatering is required and if so, where it would occur. Staff recommend that finalization of the construction management plan be a condition of approval to be met prior to issuance of any building permits.

16. *Signage and Wayfinding* – A wayfinding plan has been provided for the City's review, which details the location of both pavement markings and fixed signage intended to direct transit users from the nearest public transit stops to the HSC facility along a designated preferred route. This would have pedestrians routed along the west side of Riverside Street, so as to have access to a signalized crosswalk.

    Staff Finding: Staff find the proposed locations of pavement markings and fixed signs to be appropriate. Staff have a included a draft condition of approval to finalize the signage detail prior to issuance of a certificate of occupancy.

17. *Design Standards* – The new Homeless Services Center is a 51,590 square foot single-story building custom designed based upon the program requirements outlined in the City RFP for emergency shelter operational best practices. Given the unique mixed institutional and residential nature of the shelter, it is unlike any existing development within the vicinity. The building is articulated by a large canopy that highlights the building entrance, and makes use of small, scaled windows and larger glass walls to bring in natural light and connect the building to the outdoor areas.

    Staff Finding: This proposal underwent design review by Caitlin Cameron, Urban Designer, Matthew Grooms, Senior Planner, and Kevin Kraft, Deputy Director, against the Two-Family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards (Section (d) of the Design Manual). For complete review comments, please see Attachment 1.

    Staff find that the proposed design fully meets all applicable design criteria for this type of use and this standard is found to be met.

F. Site Location of Development Act (SLODA) Review

The new Homeless Services Center development will result in more than three acres of 'structure', which by the Maine DEP Site Law definition is buildings, parking lots, roads and other paved areas.

Given this fact, this application is required to undergo SLODA review, for which the City of Portland has delegated review authority.

A summary of the project's consistency with applicable review standards has been included as part of this memorandum, which can be found below. Site Location review standards are listed under Section 14.3 of the Technical Manual, and are as follows:

1. *Financial and Technical Capacity*

   Staff Finding: The applicant has provided evidence of both the financial and technical capacity to complete this project. Gorham Savings Bank has provided a letter indicating their commitment to finance this project. With regards to technical capacity, the applicant has provided details on the full consultant team, composed of a qualified civil engineer, architect, surveyor, geotechnical engineer, landscape architect, and construction firm.

2. *Traffic Movement*

   Staff Finding: This standard specifically refers to the state's traffic movement permit process, which is triggered when there are more than 100 peak hour trips. This development will result in 22 a.m. and 13 p.m. peak hour trips and as such, this standard is not applicable.

3. *No Adverse Effect on the Natural Environment*

   Staff Finding: As stated in the application, the development will almost entirely be confined to previously developed, cleared land. Upon evaluation of the stormwater management plan, staff found that the proposed BMPs are highly unlikely to result in any erosion of the slope at the rear of the site, which has been called out by the Board and members of the public. The applicant has also committed to erecting a perimeter fence to restrict unauthorized access and use of surrounding conservation land. The HSC Management Plan also commits shelter staff to regular monitoring of nearby trails.

4. *Soil Types*

   Staff Finding: The site's soil layers are generally characterized as uncontrolled fill from three to 25 feet deep, with stable native deposits of glaciomarine clay, glacial outwash sands and glacial till, and ledge generally 30 feet or more below grade. According to the application, the site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions so as to comply with the Maine DEP Voluntary Response Action Program (VRAP).

5. *Ground water*

Staff Finding: Based upon test pit data, the groundwater table throughout the site is approximately six to nine feet below the existing grade, which is considered ample separation from any underlying groundwater resources.

6. Infrastructure

Staff Finding: Proposed utility connections are expected to adequately serve the facility and all required utility capacity letters have been received.

7. Flooding

Staff Finding: Given the site's topography and proximity to the Presumpscot River, flood risks are not anticipated to be exacerbated by this development. According to the City's Flood Map Viewer the buildings footprint is not located within a flood zone.

8. Storm Water Management and Erosion and Sedimentation Control

Staff Finding: As mentioned under site plan review, the stormwater management plan provides for on-site stormwater quality treatment through the use of bioretention filters, grassed underdrained soils filters, a roof line drop edge filter and a FocalPoint Bio-filtration system. vegetated biofilters and grassed underdrained soil filters spread throughout the site. Once treated, stormwater will be directed to the Presumpscot River, either through the existing on-site pipe drainage system, or to the vegetated northerly bank of the river, where it would sheet flow to the river. Given that the Presumpscot River will receive this treated water, the applicant has requested a waiver of the Maine DEP Ch. 500 Flooding standard. Staff have reviewed the stormwater management plan and found it to meet state and municipal standards for stormwater management, and are recommending that the Planning Board approve the waiver of the Flooding standard..

VII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning staff recommends that the Planning Board find that the proposed site plan and conditional use applications for 654 Riverside Street meet the applicable standards of Portland's Land Use Code.

VIII. MOTIONS FOR THE PLANNING BOARD TO CONSIDER

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on September 14, 2021 for application PL-001682-2021 relevant to Portland's technical standards and other regulations; and the testimony presented at the Planning Board hearing.

1. The Planning Board **[finds/does not find]** that extraordinary conditions exist or undue hardship may result from strict compliance with Technical Manual Section 5.III – Maine DEP Ch.

500 Flooding Standard. The Planning Board [waives/does not waive] Technical Manual Section 5.III – Maine DEP Ch. 500 Flooding Standard to allow treated water to directly outfall to the Presumpscot River.

B. SITE PLAN REVIEW AND SITE LOCATION OF DEVELOPMENT

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on September 14, 2021 for application PL-001682-2021 relevant to the site plan and Site Location of Development Act regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan [is/is not] in conformance with the site plan standards of the Land Use Code and [approves/does not approve] the application, subject to the following conditions of approval:

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT

1. The applicant shall coordinate with the Department of Public Works and Corporation Counsel to finalize and execute the stormwater maintenance agreement for this development.
2. The applicant shall finalize the construction management plan for the project and identify whether or not dewatering is required and if so, where it would occur. The updated construction management plan shall be submitted to the Planning Authority and Department of Public Works for review and approval.
3. The applicant shall confirm the design of the FocalPoint stormwater system with the product manufacturer, and provide confirmation of this verification to the Planning Authority.
4. The SLOD application materials shall be updated to reflect the most recent plan changes and provided to the Planning Authority to include in the post approval findings to be sent to Maine DEP.

PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY

5. The applicant shall finalize the design and construct an ADA accessible sidewalk between the HSC facility and nearest fixed transit route stops along Forest Avenue. This plan shall be submitted to the Planning Authority and Department of Public Works for review and approval.
6. The wayfinding signage plan shall be finalized to include a selected sign detail. This plan shall be submitted to the Planning Authority for review and approval.

ONGOING CONDITIONS OF APPROVAL

7. The maximum number of persons staying at the shelter at any one time shall be no more than 208 persons.

C. CONDITIONAL USE REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on September 14, 2021 for application PL-001687-2021 relevant to the conditional use standards listed under Ch. 14, Articles 6.5.2 and 6.5.6.B of the City's Land Use Code; and the testimony presented at

the Planning Board hearing, the Planning Board finds that the plan [is/is not] in conformance with the conditional use standards of the Land Use Code and [approves/does not approve] the application.

IX. ATTACHMENTS

Planning Board Report Attachments

1. Design Review Memo
2. Woodard and Curran Stormwater Comments
3. T.Y. Lin Traffic Engineering Review Comments
4. Public Comment Compiled

Applicant's Submittals

A. Cover Letter
B. Major Site Plan & Conditional Use Checklist
C. Right, Title & Interest
D. Zoning Analysis
E. Waiver Requests
F. Financial Capacity
G. Technical Capacity
H. Transportation Narrative
I. Environmental Narrative
J. Public Infrastructure & Community Safety Narrative
K. Site Design Narrative
L. Conditional Use Standards Narrative
M. Construction Management Plan
N. AutoTurn Analysis
O. Architectural Narrative Update
P. Stormwater Report
Q. HSC Survey and Listening Session Notes
R. Neighborhood Meeting Certification
S. HSC Management Plan
T. Letter of Response I (8.12.21)
U. Letter of Response II (8.31.21)
V. MHPO Response
W. MNAP Response
X. Public Meeting Sign Certification
Y. SLODA Delegated Review Submission
Z. HSC TDM Plan

Plans

P1. Cover
P2. General Notes
P3. Existing Conditions and Removals Plan
P4. Site Layout Plan
P5. Riverside Street Sidewalk Extension
P6. Grading & Drainage Plan
P7. Grading & Drainage Scale Enlargement I
P8. Grading & Drainage Scale Enlargement II
P9. Wayfinding Plan
P10. Utility Plan
P11. Overall Stormwater Plan
P12. Stormwater BMP Plan View I
P13. Stormwater BMP Plan View II
P14. Stormwater Details I
P15. Stormwater Details II
P16. Stormwater Details III
P17. Site Details I
P18. Site Details II
P19. Stormdrain & Utility Details
P20. Water Details
P21. Electrical Details
P22. Erosion Control Notes
P23. Site Cross Sections I
P24. Site Cross Sections II
P25. Utility Profiles
P26. Site Landscaping Plans
P27. Site Lighting Plan
P28. Architectural Plans

Planning and Urban Development Department
Planning Division

Subject: Design Review – 638 Riverside Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Tuesday, August 17 2021

The shelter proposal at 638 Riverside Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Matt Grooms, Senior Planner, and Kevin Kraft, Deputy Director, against *the Two-family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards* (Section (d) of the Design Manual).

Design Review Comments*: (questions and unmet standards in red)*

- Label elevations with materials

(i) Two-family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters

Standard (1) Exterior Design – The nearest residential neighborhood is a recent apartment complex with brick, clapboard, porches, pitched roofs. However, there are no residential areas directly abutting this building and as an institutional use, should not be expected to use the same architectural features as smaller, residential buildings.

- The one-story building includes variation in the roofline and a mix of fenestration, materials, and awnings/canopies to provide variation and visual interest
- Windows were added to the front entrance area. A variety of window types and sizes are used appropriate to the programs within the building.
- The material palette can help make the building feel residential rather than industrial. However, this large, one-story building should not be expected to recreate the character of small-scale residential buildings. The brick and panel provide fine-grain scale and use colors that relate to the context but are also appropriate for this building's scale and use.

Standard (2) Relationship to the Street – The placement of buildings is varied in this location. Most buildings are industrial uses without consistent relationship to the street, parcel shapes/sizes, or consistent fabric. The proposed building is consistent with the lots around it – the building is placed away from the street and provides privacy with landscape buffer.

Standard (3) Open Space – Several types of open space – passive and active – are provided for the residents.

- The circulation and access points were clarified in the latest submission.
- Access points are emphasized with canopies, paths in the landscape plan

- A transition area between the common room and landscape features was added to provide scale, transition, and comfortable ways to use the spaces that feels comparable to a residential porch.
- Landscape plans show each landscape area and where accessed through the building, what is separated or fenced from vehicle circulation.

Standard (4) d. Windows and Storage – Windows provided throughout the living spaces.

- Storage provided in locker room and at each bed location.

Standard (5) Screening of Parking – The parking areas are adequately placed, scaled, and screened to minimize the impacts on the abutters and street.

- No residential abutters, the abutting property is lined with screening landscape
- Parking is placed away from the street with wide landscape areas between the street and property line and the surface parking areas

Standard (6) Lodging House Conversion – Not applicable

Portland Maine Yes. Google's good here.

Att. 2

Matthew Grooms <mgrooms@portlandmaine.gov>

638 Riverside Street - HSC Final Comments

Lauren Swett <lswett@woodardcurran.com> Fri, Sep 10, 2021 at 12:35 PM
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Hi Matt,

I have reviewed the resubmittal for 638 Riverside Street, and have the following remaining items:

- The Applicant has provided the FocalPoint design worksheet completed by the project engineer. Per MaineDEP requirements for the FocalPoint proprietary system, this design needs to be verified by the manufacturer. That additional confirmation is required for the system. The worksheet includes a place to check off that the design has been reviewed by the manufacturer, and this has not been included.
- A stormwater maintenance agreement was included in the August stormwater management report. A final executed version will be required.
- I believe the Applicant is still waiting for confirmation of utility ability to serve.
- SLODA – For submission to the DEP for record, the SLODA application package should be updated to include the current stormwater management report and design plans that include the final stormwater management systems. The SLODA PDF in eplan currently includes the older stormwater management report and plans that were based primarily on treatment by buffers. I would also recommend that the final SLODA package include the utility ability to serve letters, the various agency responses (MNAP and SHPO have both now been submitted separately), and the FocalPoint design confirmation (as noted above) as this is a specific requirement of the DEP for BMP approval.

I am in agreement with the proposed Flooding Standard waiver for the site – the proposed stormwater management systems will result in reduction of flow, and this latest design has incorporated further emergency spillway design into each of the proposed stormwater treatment measures to ensure a stabilized place for overflow in the event that there is a larger storm event.

Please let me know if you have any further questions.

Thanks,

Lauren

[Quoted text hidden]

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.

Emergency shelter data 0 views

Subscribe

Amy Johnson Jul 27, 2021, 10:20:54 PM (12 hours ago)

to planni...@portlandmaine.gov, public...@portlandmaine.gov, md...@portlandmaine.gov

Dear Planning Board members,

During my public testimony tonight I committed to following up by email with the data I compiled about Oxford St Shelter use in recent months. That analysis is attached, and shows that we have been using substantially fewer than 200 emergency beds per night. Furthermore, if we want to plan a system that uses emergency beds only for short-term crises (and invest in better solutions for chronic homelessness), then the demand drops below 100 beds. As I indicated, this data was compiled during the course of tonight's meeting and culled from PDF documents; I'm generally pretty careful but it has not been double-checked.

In addition, I wanted to respond to a question about shelter sizes in New England. While Boston has at least one shelter larger than 200 beds, the largest shelter in Vermont is about 30 beds ; New Hampshire's largest adult emergency shelter (New Horizons in Manchester) hosts 75 guests per night. These peers are more comparable to Maine.

It also became clearer to me through discussion after the public comment period that the Planning Committee has limited jurisdiction over the size of the new shelter. While the safety of a 200-bed shelter is quite germane to the question of a conditional use permit in the zone, the more relevant question of appropriateness is a more general policy concern. Thus I have also cc'ed the remaining city council members on this email. While it may be out of context for those who were not present, I think the one-pager will still make sense.

Thanks in advance for considering this analysis, and for your service.

Amy Johnson
20 Armstrong Hts.
North Deering (D5)

Oxford Street Shelter Monthly Intake data[1]

	2020			2021		
	Total OSS Intakes	% Portland Residents	Avg OSS Beds by night	Total OSS Intakes	% Portland Residents	Avg OSS Beds by night
Jan	108	34%	182	83	34%	182
Feb	79	29%	175	8	63%	113
March	95	18%	169	53	43%	104
Apr	0	--	113+35*	119	24%	103
May	0	--	92+46*	75	31%	167
June	1	0%	75+44*	95	17%	169
July	18	50%	73+15*	--		
Aug	75	39%	84	--		
Sept	32	38%	100	--		
Oct	56	55%	104	--		
Nov	52	37%	128	--		
Dec	84	35%	142	--		

* Sullivan Wellness Center

Key points

- The stated policy goal is for **emergency shelter** stays of less than two weeks. Intake data at the Oxford Street Shelter (OSS) is the best estimate of "new" (emergency) shelter need in any given month.
- The finding that average nightly beds is substantially higher than the intakes in any given month suggests that there is unfortunately a substantial proportion of guests staying at OSS for longer than a month. The gap is a sign of the magnitude of the problem. The most recent (2019) annual report of the OSS cites 28% of guests as chronically homeless and only 44% staying fewer than 13 days.[2] If we invest public resources in emergency beds and not other options, we are cementing in place this status quo.
- Whether you use intake data or average nightly beds as the projected need you want to meet with *emergency* shelter beds, both numbers have been consistently below 200 in the past 18 months. The pre-pandemic data used to generate the target of 200 emergency shelter beds seems to be outdated.
- Portland residents account for a minority of intakes. The service model hub that has been proposed by the statewide homeless council would further reduce the need.
- Taken in combination, this data points to a need for fewer than 200 emergency beds and more investment in affordable and supportive housing models.

[1] Compiled 7/27/2021 from ESAC data posted at *http://www.portlandmaine.gov/Archive.aspx?AMID=61&Type=&ADID=*

[2] http://portlandmaine.gov/ArchiveCenter/ViewFile/Item/1039

Prepared By Amy Johnson, amyfjohn@gmail.com (Armstrong Hts.)

Homeless Service Shelter

Art Batson
unread,
Aug 23, 2021
to planni...@portlandmaine.gov

Please distribute to planning board before next meeting on August 24
Thank You
Art Batson
President
Lucas Tree Expert Co.

Sent from my iPad
LUCAS TREE EXPERTS CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

Planning Board
City of Portland
389 Congress St
Portland, Me 04101

Re: Homeless Service Shelter 654 Riverside Street
Dear Board Members:

I met with Steve Buchey from Gorrill Palmer on Tuesday 8/17 at Riverside St. We discussed some of the following issues:

1.Entrance Location onto Riverside St.

There are several issues associated with the location. When the city created the Riverside subdivision, a private road was design to service Lots 2, 4-1 and 4-2. Lot 2 was required to close its Riverside Street entrance and use the private road entrance. The reason was to eliminate in's and out's (curb cuts) onto a congested and fast-moving traffic road. During the summer months because of vehicles heading to the lake's region the traffic backs up from the light at Forest Ave past our facility at 636 Riverside St. It's nearly impossible to exit our entrance unless your turning right towards Warren Ave. Why is this project creating another curb cut only 175' from our entrance when it should be using the new created private road which I understand has spare underground conduit for a future project on Lot 4-2 and was part of the subdivision plans?
We have large trucks with trailers entering and exiting and with a new driveway it will create a new traffic hazard. With basically a 200-person hotel/w restaurant being proposed it would see to me that traffic calming device like a traffic light is needed near Waldon Way/Riverside Street.

2.Security Fence
With millions of dollars of equipment in our yard the introduction of a couple hundred people it seems only obvious that proper fencing is need to keep the flow of entrance and exits to one common area. We would be open to a shared fence on our common properly lines so that we don't have two fences side by side. In addition, outdoor security cameras would be a necessary to protect all involved.

3.Cell Tower on Lucas Property next to Portland Communication Tower on Lot 4-2.
There are several concerns regarding the towers. Everyone should remember the 1998 Ice Storm when we lost power for two plus weeks and steel tower structure came down like domino from here to Quebec City. What is a safe crash zone for these structures next to a 24 hour populated facility?
A second issue that should be explored is radio frequency exposure to humans from a duel communication antenna site. Having two towers side by side is unique. Most large towers are in isolated area without full time residency.

3.Erosion Control Issues
Other than a slope grass mix I see no landscape plans for erosion control along the steep embankment behind the facility. There is a proposed perimeter green road right along the edge of the embankment which will shed water to the embankment that consists of clay base material that was used as a fill for the site.
Test borings and pit data from S.W. Coles subsurface geo- technical findings show that the negative soils conditions and a soil remediation process will be extensive and costly to put a structure on the site

with pilings or geo-piers. Road and parking areas will require extra depth aggregate. Hopefully all these extensive costs have been considered in the planning?

4. Portland Trails
The combination of the Portland Trails easement and the proposed separate entrance and parking area in front of the property for visitors adds to the traffic on that site and questions the wisdom of where the entrance is currently planned. I think some type of fence separation is needed to give trail walkers a sense of security and guidance as they start out on their walk.

5.Conditional Use Standards and Criteria
There are several conditions that I think make this project not compatible with the current land use for our zone. The design and operation of this facility is out of character with business in this area. The introduction of 200+ people, who mostly travel by foot, into a heavy industrial zone with large volumes of commercial traffic will create many traffic hazards. Consider winter conditions, dark most of the time, after snow or ice storms with sidewalks not plowed for several days and speeding traffic with large trucks intertwined with a population traveling by foot to the bus top. My worst fear is that one of my trucks would be involved with a pedestrian . You are introducing a large residential use into a heavy industrial zoned area, excess foot traffic, litter, and safety issues to adjacent properties. The sheer volume is greater than other allowable uses in this zone. I would recommend that you deny the conditional use.

Thank You

Arthur W Batson Jr
President
Lucas Tree Expert Co.

Comment for 654 (638) Riverside Street

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0 views

Baxter Miatke Jul 27, 2021, 10:34:22 AM (yesterday)

to planni...@portlandmaine.gov

Hello,
If this comment is able to make the meeting tonight please add if possible.

I want to express my concern around the stormwater management plan at this site (654 (638) Riverside Street as it relates to the Presumpscot River specifically. I've been following along for awhile now and wanted to stress the importance of doing the due diligence as it relates to the stormwater management plan at this site. The presumpscot river is a critical resource to the city of Portland both recreationally and environmentally and I strongly disagree against any waivers from the technical manual to allow sheet flow across the site over steep banks without any controls and would rather suggest the site go above and beyond the technical manual standards to ensure the healthy, safety and stability of this site as it relates to the river and trails immediately along the bank. I have personally biked along the trail that runs along the river and this site and know how uniquely steep the banks are within that area.

Let me remind all of you, it was only one year ago that Westbrook had a PR nightmare with the landslide into the Presumpscot River literally just upstream of this site on Warren avenue.

From that event:
"A geologic investigation of the area in 1990 found that a layer of soft clay lies beneath the area and extends deep underground. The softness of the clay means that the material behaves like a viscous fluid that can “flow” rather than break into discrete pieces.This layer is referred to as the Presumpscot Formation, and a later 2008 geological survey found that the formation surrounds the river outside of its immediate banks. As per the senior geologist at the Maine Geological Survey and landslide expert (Lindsay Spigel), "said she has visited the site but didn’t get too close because the nearby land was still unstable. She cited the Presumpscot Formation as the cause of the landslide but couldn’t say for sure what triggered it."

Has anyone reached out to the geologists/engineers from that investigation and their official geologic assessment as it relates to this site specifically given the nature of that event just last year? Let's learn from those events rather than repeat them again.

Link to the source:
https://www.pressherald.com/2020/09/17/officials-test-stability-of-westbrook-riverbank-after-landslide-into-presumpscot-river/

As an environmental engineer myself registered in the state of Maine, I respect my fellow professional engineers and geologists who have prepared these designs, but would be remiss if I didn't offer my personal opinion and stress the importance of due diligence and exceeding the standards on a site as sensitive as this one and would encourage the planning board to be aware of their decisions and hold engineers like myself to a high standard and fully understand how the stormwater plan will affect the geology/erosion at the site to prevent landslides as it impacts the river given the unique characteristics of the area.

Best regards,
Baxter Miatke
12 Pinebrook Ln, Portland, ME

message for Maggie Stanley

1 view

Subscribe

Carolyn Silvius

Jul 27, 2021, 7:50:30 PM (yesterday)

to planni...@portlandmaine.gov

To address one question that you asked, There is a lovely lady on Brackett St who takes pets (cats and a few small dogs) for people living in shelters. She does not charge a penny to the clients, but relies on donations and her own income to care for them. Her home is clean with no smell, even with the 30 cats she has. I've never seen any waste in the cat boxes. She must be constantly scooping. My two cats with her for months. She gave them loving care and extra attention to prevent one of them from becoming feral. She allows the owners to visit by appointment at least once a week. Her name is Sally Rollins. Her phone # is 773 4217. For more info call her. I'm sure she'd be glad to speak to you. And if you can, send her a donation. When I picked up my cats to bring to my new home, I gave her $50.00. From her reaction you'd have thought it was a million. Just thought you'd like to know.

Homeless Services Center

Carolyn Silvius
Aug 22, 2021
to planning@portlandmaine.gov

I would like to start by saying that the proposed new Homeless Services Center is an ugly looking building with few or no inviting features. In my opinion, it looks more like a jail than a warm and comforting residence. But aesthetics aside-- my concerns are centered on practical facilities and accessibility for the elderly and handicapped guests. There are many types of handicaps, but my focus is on those that concern mobility. I have no firm numbers, but from my observations of several adult shelters, approximately one third of the populations are over 55 years old. Further many require mobility assistance such as canes or walkers, and others without these aids experience great pain in walking distances. This is a very long building. The frontage is 600 feet and when you add in the bedroom extension in the rear, it is about 800 feet or more. If a guest is in the day/cafeteria area and needs to get something from his locker, by the time he returns to the day area, he has walked about 600 feet. To use the bathroom and return is about 300 feet. These may not seem long distances to an able-bodied person, but to one with mobility issues, they could be quite incapacitating. The City is going to have to commit to a plan for mobility assistance such as wheelchairs or scooters for these individuals.

These comments are based on the diagram of the interior of the shelter included in section D of the planning board's conditional use standards. This diagram is very fuzzy and impossible to read. I have searched for a clear version of this and been unable to find one. Until a diagram is made available that can be read by concerned citizens, this shelter cannot be approved.

Another issue that arises is restroom facilities. In the diagram I see only one area for restrooms for shelter guests,and no staff restroom facilities. The one restroom is located about 600 feet from the far wall of the men's sleeping area and close to 800 feet from the far wall of the women's bedroom area. Those are very long distances to travel for anyone, and particularly for the disabled, with full bladders. The trek requires going through the sleeping areas and possibly disturbing lighter sleepers in the process. Further, there is no mention anywhere of how many stalls will be included or whether the restrooms will be designated and separated as men's room, women's room or other. I would submit that at times of high usage (early morning and before lights out), for 208 people there would need to be twenty five stalls to ensure no one has to wait more than half an hour to do his business. Also at least five more stalls must be designated as handicapped and reserved only for those who require those facilities. Since we are talking about a total of 30 stalls (and possibly 15 sinks for handwashing), it seems more practical to have a second restroom area closer to the sleeping area. In addition, to serve the fifty staff members, at least five more restroom facilities need to be established in various areas, especially near the office areas, and five more in the area of additional services (health clinic, police, etc).

The planning board has determined, in accordance with the existing rules, that metro stops must be located within a half mile of the shelter site. As far as I can tell, there are two metro stops that could serve this need, one on Riverside Street and one on Forest Avenue. The Riverside stop is about a half mile from the property line, but when you add in the footage of the driveway, which is nearly 700 feet from the shelter entrance to the road, it comes out to well over the half mile, so I would conclude that the Riverside St metro stop doesn't qualify. The Forest Ave metro stop is inaccessible to the Homeless Services Center unless the City builds an 875 foot sidewalk from the property line to Forest Ave. However, when you add in the 700 feet of the driveway and the remaining distance to the actual stop, you are very close to, if not over, the half mile required. More accurate measuring will

need to be done to determine if this metro stop actually qualifies under the half mile rule. In the case of either bus stop, that half mile is too far for the handicapped and elderly with mobility issues to access. There was also mention of a shuttle system, but no plan of funding it for the next ten, twenty, or thirty years. In my experiences with the City, I've found that programs like free bus tickets and shuttle services without long term funding plans, tend to disappear within three or four years.

The next issues don't necessarily involve handicapped access, however they are serious concerns with the management plan that I would like to include. The first involves the day/cafeteria area. The city has stated in it's plan for day space that the 212 chairs and corresponding 35 tables would be broken down and stored between meals. This raises a couple questions. It seems like it would take half an hour to an hour to break down and remove these tables and chairs, and the same length of time to put them back up for three meals a day. While this is being done, it is a total of three to six hours a day with no day space available. Where are the guests supposed to go during this time, and when they are allowed back into the day area, will they be in a big empty space with nowhere to sit? Also, where will these tables and chairs be stored when not in use? I see no storage areas in the diagram. This needs to be addressed before approval of the shelter plan, which requires adequate day space all day.

The next issue concerns laundry facilities. There is no reference in the diagram to the number of washing machines and dryers that will be included in this area. I expect that each of the 208 residents of the Center will need to do at least two wash loads of laundry each week. That's four hundred sixteen washerloads. A washer and dryer cycle, including loading and unloading will take about one and a half hours. Presuming that the machines will be running continuously for twelve hours a day, it would require ten washing machines and twenty dryers to barely meet the minimum requirements of two loads per resident per week. Although it's difficult to tell from the diagram, the space provided for laundry facilities doesn't look large enough to accommodate that many machines. Further, if these machines are running continuously, there will be breakdown time to consider, possibly requiring even more machines to take over for non functioning machine time.

I'm certain there are more practical concerns that I haven't thought of, but these seemed to be the most obvious to me. The City and DC need to answer a lot of questions before this Center can be approved and I would consider it undue haste for the planning board to go ahead with so many issues yet to be addressed.

Public comment on City Homeless Services Center Project (638 Riverside Street)

cecilia smith
to planni...@portlandmaine.gov

Dear Planning Board,

I am writing to express my concerns about the proposed Homeless Services Center in Riverside. My name is Cecilia Smith and I don't live near the proposed facility. Nevertheless, I think there are some serious problems with the current plan that I hope my Planning Board will address.

My first concern pertains to site conditions. Developing a huge impervious building on a river's edge is problematic and not in line with the City's sustainability goals. The site is surrounded by steep slopes adjacent to flood areas. The impervious cover ratio seems to be at the limit, leaving little to no room for likely changes to accommodate additional parking, or building space. According to the materials provided by the City, the impervious surface ratio = 0.4911.

- Given its proposed size, how will the site plan accommodate the need for more parking spaces or greater indoor area (such as storage) and still meet the impervious area maximum requirements?

- Does the site area take into account the area consisting of steep slopes? (This should be eliminated from the total allowable impervious area as the water is already running off directly into the river.)

- Given the site constraints there is need for a peer-reviewed stormwater management plan. A few rain gardens will not be sufficient for the size of the building and constraints on the lot. Allowing runoff into the Presumpscot River is unacceptable.

- In addition, a review should address riverbed stability issues, such as last year's landslide (very nearby) on the Presumpscot River. Is there a study that shows that the area is more stable than down the stream?

- I would like to see a reduction on the size of the building and impervious areas with more LID tools combined with subsurface systems that can adequately treat all runoff generated at the site. Has the developer considered a green roof to mitigate the building's size?

My second, yet related concern is the parking plan.

- In what basis is the assumption that people experiencing homelessness do not have vehicles? In my experience nothing could be further from the truth. While the current downtown facilities provide ample street parking how will this play out on Riverside Street? Will parking be allowed on the street in front of the Riverside site?

- Will staff members take the bus if they need transfers? At its current location, downtown, 1 parking space per employee is feasible, but once you reach an area where employees must make transfers from the METRO, it is not reasonable to assume 50% of employees will be taking the bus. Transfers add another 45 to hour time into someone's commute, making public transit not an option for many workers.

- What do we know about how many shelter staff currently ride the bus to get to work? What do we know about the number of staff who currently drive their car to work and park nearby?

I am also concerned about the transportation plan.

A basic rule in public transportation planning is frequency of bus service. Unfortunately, Portland does not have a robust public transportation system, and the only viable locations for those without vehicles is where land is most expensive, that is, Portland's downtown. Outer Forest Avenue is not served by adequate public transportation and is not walkable. The bus route serving the Riverton area has a very low frequency and is unreliable (does not run all hours).

To make this point, I urge you to consider some objective criteria: According to Walkscore.com, Riverside Street is in a car dependent neighborhood, where most errands require a car. Riverside Street site's walkscore is 42 out of 100. I understand that members of the HHS Committee and task force have visited shelters in the Boston area to learn more about how other areas operate low-barrier shelters. I want to point out that Father Bills at Quincy is 0.9 miles from Quincy's City Hall, and the subway. It is serviced by two city bus lines, running every 15 minutes. CASPAR, in Cambridge, is right by the subway station, in a heavily urbanized area, right next to MIT. All other emergency shelters in the Boston area are close to subway stations/high bus service areas/ in high-density urban locations.

While a shuttle service bus has been proposed, I worry about how it will be funded in the future, as property owners contest increases in taxes. USM transitioned to the METRO due to the high costs of operating a shuttle bus.

Last, as you may be aware, the emergency shelter siting process has been an incredibly divisive issue in our City. Not all Councilors approved the Riverside location and hundreds of residents, both housed and unhoused, spoke against both the shelter model and site selection process. At this moment Portland voters are waiting to cast their vote to change the conditional uses to limit the size of such facilities to a maximum of 50 beds. I urge you to wait until the people have cast their vote. Pushing the approval process at rapid speed to avoid a citizen referendum is not good policy and will only add to the divisiveness of this topic. Please slow down and carefully review all the concerns that have been raised and request peer-reviewed professional studies to be conducted. If this proposal is truly the best for the citizens of Portland, it will prevail post the November election.

Thank you for taking the time to read my concerns.

Sincerely,
Cecilia Smith
113 Warwick Street
Portland, ME

Stephanie Neuts
to cecilia smith, planni...@portlandmaine.gov

A plus!!!!

Public comment on City Homeless Services Center Project (638 Riverside Street)

0 views

Skip to first unread message

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Damon Yakovleff
9:57 AM (15 minutes ago)
to planni...@portlandmaine.gov

Dear Members of the Planning Board,

My name is Damon Yakovleff and I live at 72 Bolton St. in Portland. I am writing to express significant concerns about the proposed Homeless Services Center on Riverside St. The transportation infrastructure in this location is absolutely not adequate to support the proposed use, and will result in a number of pedestrian fatalities if constructed as planned.

There are very few facilities that will generate pedestrian trips on the scale this facility will. The existing facility on Oxford St. is located in an area with very good pedestrian infrastructure with generally good winter maintenance on sidewalks, especially in the adjacent Downtown area. The proposed location on Riverside Street could not be more different - it is an area primarily designed for higher-speed auto-based transportation. Sidewalks in the area are poorly cleared, if cleared at all, in the winter.

The improvements that are necessary are laid out well in the excellent letter submitted by the Portland Bicycle Pedestrian Advisory Committee, which I have attached here for your convenience. In particular, to avoid fatalities, extensive improvements must be made to all roads within one mile of road distance of the facility to do traffic calming, add full ADA compliant sidewalks, AND demonstrate that the city has fully funded winter maintenance on those sidewalks, including a complete four-season link from the facility to downtown along Forest Ave. The funded level of service for winter operations on the sidewalks must be shown to be no lower than that delivered for Portland Downtown District.

Without committed funding in place to make all of the improvements outlined in this letter, no approval should be made for this project.

Sincerely,

Damon Yakovleff

August 17, 2021

Honorable Members of the Portland Planning Board,

The Portland Bicycle Pedestrian Advisory Committee (PBPAC) has several transportation-related comments and concerns regarding the proposed Riverside St. 200-bed homeless services center.

Because this is a facility intended primarily for non-auto users, proposed to be located in a location with auto-centric design parameters, it is critical that a comprehensive Transportation Demand Management plan be developed that incorporates all modes of transportation and clearly indicates how trip generation will be managed as a condition of approval. A TDM would be an opportunity for a more comprehensive set of action steps around facility transportation needs.

Our requests are in **Bold** font:

- **Up-front details surrounding the shuttle van service including operating hours, route map, on-demand availability, and funding**. Being that a shuttle service of this type is sensitive to annual City Council budget processes, it is necessary to ensure that this service be maintained.

- Given that Portland already has at least car-camp where people live in their vehicles, an **effort should be made to understand how many shelter and day-services guests may be utilizing automobiles .** This may be challenging as the rigorous asset screening of shelter guests may make them reluctant to admit they have access to a car if it hurts their shelter eligibility. Nevertheless, given that the proposal is for a large shelter & service center on the City's periphery that is most easily accessed via automobile, one should expect the facility to generate more traffic (whether it be their own vehicle or via drop-off) than would be expected from a downtown location.

- The Management Plan included with the proposal does not include sufficient detail regarding pedestrian access to the facility. While it notes that a sidewalk is in place between the proposed location and the nearest METRO bus stop, the proposal does not indicate the adequacy of this sidewalk. Nor does it

address the adequacy of the pedestrian conditions beyond this single street segment, which will undoubtedly be in much greater use if the facility is located at this location. Nor is there any indication of the presence of any bicycle infrastructure on surrounding streets or an assessment of cycling conditions, or compliance with the City's Complete Streets guidelines. **Therefore, we recommend the Planning Board request a pedestrian and bicycle network adequacy assessment for all arterial street segments within one mile of network distance of the proposed facility location**. **Any deficiencies, such as non-ADA compliant sidewalks, lack of safe pedestrian crossing, and lack of safe bicycle routes or facilities on high speed roads should be required to be corrected as a permitting condition.**

- While it is laudable to promote transit use, and essential that a shuttle service to the proposed facility be provided, it cannot be assumed that all users will have access or feel comfortable using METRO bus services to reach the facility (for whatever reasons). **PBPAC therefore requests a full assessment of Forest Avenue between downtown Portland and the intersection with Riverside Street for full ADA level of service. If any sections are found deficient, they should be required to be funded for rebuild as a permitting condition.**

- Many users of the proposed facility will likely make extensive use of the routes outside the traditional street network. Therefore, **a full assessment of the trail and railroad network and how these routes are utilized and accessed should be provided.** [See attached trail map detail, Exhibit A]

- Regarding winter maintenance: **The City should be required to make the entire length of Forest Avenue a high-priority City-cleared sidewalk notably the gap between I-295 and Morrills Corner.**

- It must be noted that there have been recent Portland fatalities along busy byways poorly designed for pedestrian use. Edward Blumenthal (age 57) died along the stretch of Congress Street that crosses the Fore River sometime in September 2017. Robert Belanger (age 58), struck by a city truck hauling snow, died along outer Congress Street in March 2018. In both cases, the circumstances surrounding these pedestrian deaths remained mostly unexplained to the public although inadequate accommodations for safe walking (especially after dark and during poor weather) may have played a significant factor in each death. The members of the Planning Board should recognize the similarities between these deaths (and others like them) and

the possible implications for the hundreds of shelter guests each month that will be traveling to and from the new Riverside facility in the years ahead.

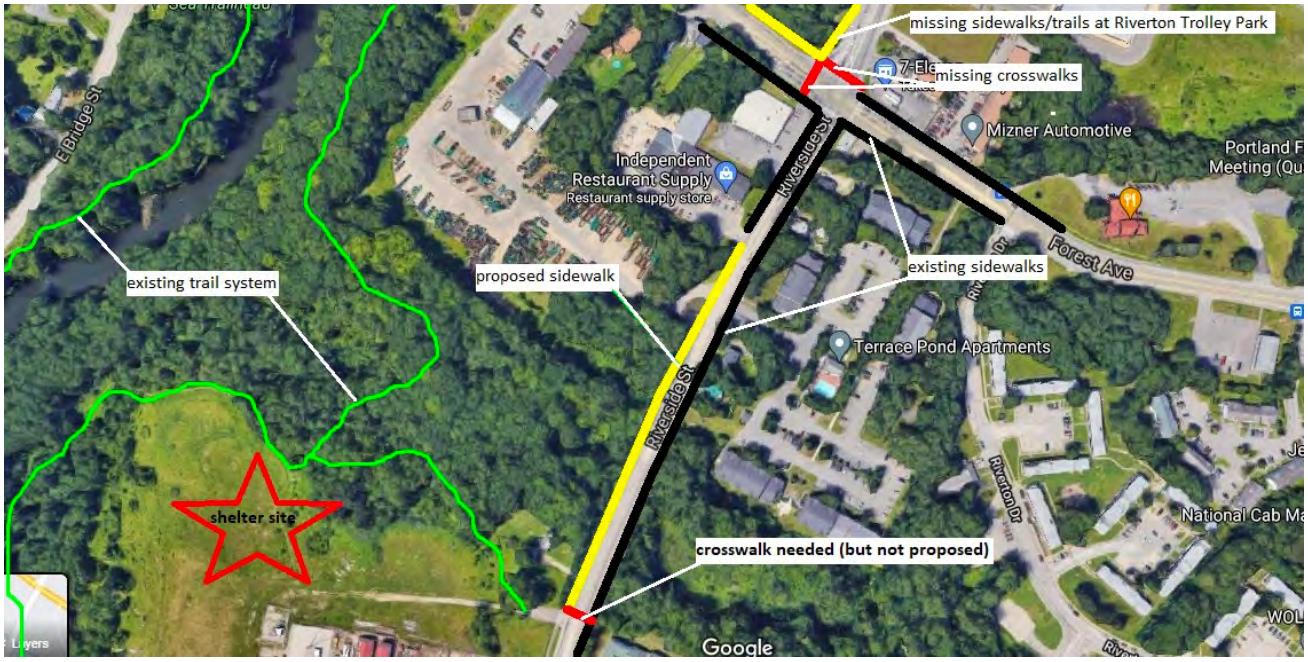
To be clear, our concerns are purely transportation-related, and our membership has diverse opinions about the merits of this proposal. However, we feel about the proposal or city homeless services policies, we stand united in believing that these transportation concerns should be addressed.

Sincerely,

Zachary Barowitz, Chair

The Portland Bicycle and Pedestrian Advisory Committee is an ad-hoc group of Portland-area residents working to make the city and region a better place to walk, bicycle, and wheel chair. We advocate and educate on bicycle, transit, and pedestrian issues, including handicap accessibility, with support from the city's Healthy Portland office, and in collaboration with other offices and organizations including the Bicycle Coalition of Maine, Portland Trails, PACTS, the Department of Public Services and the Planning Department.

EXHIBIT A



Map/image courtesy of Jaime Parker

Concerns regarding proposed Riverside st. Shelter

Damon Yakovleff

Aug 24, 2021

to planni...@portlandmaine.gov

Dear Portland Planning Board Members,

Thank you very much for giving me a chance to comment this evening despite some technical difficulties related to my rural location. I think this actually serves to highlight my concern regarding the poor prospect of doing good public outreach during the summer months, and why this proposal should not be fast tracked. The prospect of getting good outreach done in September and October is significantly better.

Regarding transportation concerns - I highlighted much of these in a earlier email. I will add that, even with some of the additional work discussed, much more remains to be done to accommodate the intense pedestrian traffic this facility will attract. It is not enough to just build a better sidewalk to Forest ave: A comprehensive sidewalk network to ada standards and cleared of snow to a high level of service is needed.

I hope you will ask the highly qualified professional staff working on this proposal to address these concerns before any approval is granted.

Thank you all for your hard work and dedication.

Sincerely,

Damon Yakovleff
Bolton St.
Portland

Planning Board meeting regarding proposed Shelter on Riverside Street

dgr...@maine.rr.com
unread,
Aug 19, 2021, 9:37:15 PM (11 hours ago)

to planni...@portlandmaine.gov

The parcel of land located on Riverside Street that is earmarked for homeless shelter is remarkably unsafe given its proximity to the Presumpscot River and the large wooded area on the city's parcel of land that is between the proposed building site and the river. This message has been conveyed to the City Council on many occasions during public comments during of the City Council meetings that have been held on the shelter location decisions when topics of this Riverside site were being discussed.

Growing up in Portland and being aware of multiple crimes of opportunity that have taken place where there has been an overgrowth of trees, such as the loss of a school-age peer Richard "Ricky" Stetson on Back Cove in 1982 (may he continue to rest in peace), the area between the Eastern Promenade and the East End Beach where several of my friends have been victimized, as well as 2 attacks on females that happened on the property behind my childhood home on Sheridan Street due to the overgrowth of shrubbery and lack of attention to landscape detail by my neighbor, I am horrified to think of the safety issues that this parcel poses for any un-housed person who is invited to the property, by the city, for safe shelter.

In addition to the wooded area of the parcel of land, at the intersection of Route 302 and Bridge Street, which is located within 2000 feet of the shelter site, the Presumpscot River regularly floods, such as in 2010 and 2011, and is under flood watch with heavy rains and every spring. The proximity of the fast moving Presumpscot river behind the city parcel is a liability for the city because there are a multitude of purposeful and accidental possibilities that can result in bodily harm or death to un-housed individuals - which the planning board must address for the benefit of any un- housed person who is invited to the property by the city for safe shelter; and for the benefit of fiscal accountability to the the tax payers in the event of a tragedy.

I feel that taxpayer support for this site to be used for a shelter should only happen if there are many SIGNIFICANT measures that will minimize harm to the shelter recipients on the grounds outside of the shelter, and reduce the legal exposure that accompany pursuit of this parcel for a large scale project for the vulnerable members of society that are un-housed.

Sincerely,

Deborah Groff
55 Harris Avenue
Portland, Maine
04103

Public Comment for 638 Riverside Megashelter: Why Planning Board Needs to Push Back on "Cop-roganda"

Assi… Subscribe

0 views

George Rheault <george.rheault@gmail.com> 11:01 AM (1 hour ago)

to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, Matthew Grooms, jmy, Abigail Reed

If the citizens of Portland had a Planning Board that was truly independent and not comprised of people deeply invested in moving our homeless neighbors 5 miles from downtown, we might actually have some real scrutiny of the megashelter proposal scheduled for a public hearing on September 14th after a dizzying and rushed 7-week long public review process.

Real scrutiny would involve taking note of the fact that all the major players in this drama:
- Kevin Bunker
- Christine Grimando
- Frank Clark
- Kristin Dow

ALL of these people owe their jobs and sinecures to the same person (Jon Jennings who is about to beat it out of town for, literally, sunnier skies). Kevin Bunker is waist-deep in various real estate ventures across Portland that depend deeply on the cooperation and forbearance of City Hall. And of course the heads of Planning, Health & Human Services and the Police Department all have their jobs chiefly because they were prepared to kow-tow to instructions from Jon Jennings whether or not their professional judgment accorded with those instructions.

It is hard to say which city department has done more to stigmatize those experiencing homelessness and the provision of services to them, but the Police Department certainly has been the "muscle" in terms of harassing homeless persons and destroying their encampments and belongings. Having done their level best for years to "herd" the homeless into West Bayside, the Police Department leadership will soon be expected to enforce a new "peninsula off-limits" policy should the megashelter plan come to fruition.

A recent perfect case study of the insidious nature of the Police Department's actions came to light in August when another law enforcement agency, from far-flung San Diego, shined a big spotlight on the campaign of misinformation and hysteria that law enforcement in our community has been waging for years against our most marginalized neighbors.

See attached several New York Times stories that demonstrate the use of intentional "cop-roganda" over fentanyl exposure to stigmatize and isolate those struggling with heroin addiction in our community.

Also attached is our own local version of such "cop-roganda" involving a May 2020 incident which of course received LOTS of media play and was cited on multiple occasions by city officials in multiple forums.

As others have pointed out, drug dealers around the globe would be THRILLED if one could receive the narcotic effects of heroin-like substances like fentanyl from simple incidental contact. In fact, the pharmaceutical industry has spent a LOT of money trying to do just that without success. But of course the law enforcement community has a vested interest in brainwashing its personnel to believe that the mere handling of fentanyl can cause an overdose reaction or worse.

Such "cop-roganda" recently deployed in our very own Portland, should give the Planning Board great PAUSE in terms of BLINDLY accepting any statements from our Portland Police Department, especially surrounding any security analysis of the megashelter's physical layout and management plan.

Our police have shown they cannot be trusted with the complex and difficult facts surrounding the swirl of poverty, untreated drug addiction and mental illness and artificial housing scarcity that has created the unending perfect storm of homelessness in Portland which Portland's selfish elites have decided can only be addressed through an inhumane and inadequate megashelter on the city's border with Westbrook.

Hopefully our Planning Board will display some shred of independence and look past the spin and the conclusory statements and demand real third-party accountability rather than accepting as truth self-serving conflicted hogwash like police officers needing NARCAN administered to them simply because they were in the presence of fentanyl.

Portland police officer taken to hospital after being exposed to fentanyl

pressherald.com/2020/05/12/portland-police-officer-taken-to-hospital-after-being-exposed-to-fentanyl/

By Edward D. Murphy May 13, 2020

A Portland police officer was taken to the hospital after being exposed to fentanyl, a powerful synthetic opioid, while searching a car Monday night, police said.

The officer, who was not identified, was questioning Colby Pidgeon, 22, of Cape Neddick after spotting Pidgeon sitting in a parked car at Federal and India streets and behaving suspiciously, Lt. Robert Martin said in a news release.

Pidgeon was free on bail and his release conditions allowed police to search him or his vehicle.

While going through Pidgeon's car, the officer pulled a napkin from a door pocket, police said. Some powder that was in the napkin blew into the face of the officer, who soon began to feel ill and called an ambulance. A police supervisor administered Narcan, a drug that counteracts an opioid overdose, and the officer was taken to Maine Medical Center. He was released from the hospital later Monday night and has returned to duty, police said.

Pidgeon was charged with unlawful possession of a drug and violating conditions of his release. He was being held without bail at the Cumberland County Jail.

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The New York Times https://www.nytimes.com/2021/08/10/us/san-diego-fentanyl-overdose-video.html

San Diego Sheriff Releases New Details About Video of Deputy's Collapse

A lab analysis revealed fentanyl in a substance handled by a sheriff's deputy who later collapsed, but medical experts cautioned that merely handling the drug is insufficient to trigger an overdose.

By Isabella Grullón Paz

Aug. 10, 2021

Facing skepticism about body camera footage showing a trainee's collapse while investigating a substance he believed to be fentanyl, the San Diego County Sheriff's Department on Monday released several reports related to the incident, including the results of a laboratory analysis that found that the substances figuring in the dramatic video included fentanyl and methamphetamine.

The footage, which shows Deputy David Faiivae collapsing in a parking lot on July 3 shortly after handling a white powder, had been met with scrutiny from medical and addiction experts who said it was impossible to overdose on fentanyl simply by handling the drug.

In an edited video that the department released last week to demonstrate the dangers of fentanyl, Deputy Faiivae's field training officer, Cpl. Scott Crane, recounted that Deputy Faiivae "was OD'ing the whole way to the hospital."

Fentanyl is a powerful synthetic drug that is widely trafficked in illicit markets. Its potency can vary, especially when mixed with other substances, making it easy to overdose with very small quantities.

But even though the newly released documents show that the substances Deputy Faiivae handled later tested positive for fentanyl, fluorofentanyl and methamphetamine, they do not say whether Deputy Faiivae was found to have overdosed. An incident report lists "possible internal injury," "other major injury" and "unconsciousness" as the deputy's injuries.

Dr. Scott Krakower, a psychiatrist at Zucker Hillside Hospital in Queens, said in an interview last week that it does not take a lot of fentanyl to do harm. Not knowing fentanyl's potency could quickly lead to overdose symptoms if someone were to inadvertently sniff it.

"The only way to overdose is from injecting, snorting or some other way of ingesting it," Dr. Ryan Marino, medical director of toxicology and addiction medicine at University Hospitals in Cleveland, said after the video was initially released. "You cannot overdose from secondhand contact."

Although the reports do not clearly state how Deputy Faiivae may have gotten fentanyl in his system, they present a picture of the events that may have led to inadvertent ingestion of a drug.

Accounts from both Deputy Faiivae and Corporal Crane say that after responding to a report of trespassing at a mortuary in San Marcos, Calif., Deputy Faiivae tested three bags found in a suspect's car using a portable narcotics analyzer in the back of the patrol vehicle.

According to a follow-up report, the first two bags tested presumptive positive for fentanyl and the smaller third bag tested presumptive positive for methamphetamine.

In his statement, Deputy Faiivae said the third bag was partly opened, and that some particles of the substance had spilled onto the surface in the upper deck of the car. He then "swept the particles back into the bindle and placed all of the bags into an evidence bag."

When the results came back positive for fentanyl, Corporal Crane told Deputy Faiivae that they needed to double-bag the items "for safety." Deputy Faiivae then reached down to retrieve a second bag from his evidence kit, and when he did, placed his face

"approximately six inches from where he had been testing the substances," according to his statement. Corporal Crane told him not to get so close, and when he stood up "he began to feel lightheaded and fell down."

After Deputy Faiivae fell back, he was administered four doses of Narcan, a nasal spray containing naloxone, a drug used to combat the effects of an opioid overdose. Deputy Faiivae showed no reaction to the Narcan and was taken to a hospital by emergency medical workers and later recovered.

According to the National Institute of Drug Abuse, naloxone can quickly restore normal breathing to a person if their breathing has slowed or stopped because of an opioid overdose. Naloxone has no effect on someone who does not have opioids in their system.

Neither Corporal Crane nor Deputy Faiivae was available for comment.

The New York Times https://www.nytimes.com/2021/08/07/us/san-diego-police-overdose-fentanyl.html

Video of Officer's Collapse After Handling Powder Draws Skepticism

Medical experts said the video promoted a false narrative and confusion about fentanyl and ways it can lead to an overdose.

By Isabella Grullón Paz

Published Aug. 7, 2021 Updated Aug. 31, 2021

- Update: The San Diego sheriff released new details about the video of a deputy's collapse.

A dramatic video posted by the San Diego County Sheriff's Department that shows a trainee collapsing while investigating a substance he believed to be fentanyl has been met with skepticism from medical and addiction experts.

The video, which the department released on Thursday to demonstrate the dangers of fentanyl, shows body camera footage of Deputy David Faiivae, 32, collapsing in a parking lot on July 3 shortly after handling a white powder suspected to be cocaine or fentanyl, the Sheriff's Department said.

After Deputy Faiivae fell backward, his field training officer, Cpl. Scott Crane, gave him doses of Narcan, a nasal spray containing naloxone, a drug used to combat the effects of an opioid overdose. Deputy Faiivae showed no reaction to the Narcan and was taken to a hospital by emergency medical workers and later recovered.

The video was part of an effort by the San Diego sheriff to raise awareness about the increasing rates of fentanyl overdoses not only in the county but across the country, and the importance of carrying naloxone to save those who might overdose. But medical

experts have said that it is impossible to overdose on fentanyl simply through exposure, and suggested that misinformation about contact highs does little to help curb the opioid crisis.

"The only way to overdose is from injecting, snorting or some other way of ingesting it," said Dr. Ryan Marino, medical director of toxicology and addiction medicine at University Hospitals in Cleveland. "You cannot overdose from secondhand contact."

Fentanyl is a powerful synthetic drug that is widely trafficked in illicit markets. Its potency can vary, especially when mixed with other substances, making it easy to overdose with very small quantities.

Dr. Scott Krakower, a psychiatrist at Zucker Hillside Hospital in Queens, said it does not take a lot of fentanyl to do harm. Not knowing the fentanyl's potency could quickly lead to overdose symptoms if someone were to inadvertently sniff it.

An opioid overdose tends to leave victims with shallow, almost undetectable breath, limp limbs, blue lips and fingertips, and gurgling sounds coming from the mouth, said Leo Beletsky, a professor of law and health sciences at Northeastern University in Boston.

He added that "it is not biologically possible" to experience overdose symptoms, or to die, from touching or being exposed to the drug, and that alternative explanations to Deputy Faiivae's reaction could be the enormous stress and panic among law enforcement officers around this issue.

Most opioids take 30 to 90 minutes to become fatal, and a fentanyl overdose can be fatal in 10 to 15 minutes, Professor Beletsky said. He clarified that the only way to get fentanyl into someone's system through their skin is by using medically prescribed fentanyl patches for pain, and those have led to very few, if any, fatal overdoses.

He added that reactions to fentanyl such as Deputy Faiivae's tend to be reported only by police departments or drug administrations, and rarely has a toxicology report or a medical follow-up shown that an officer, in fact, overdosed on fentanyl.

> Microscopic amounts can be accidentally absorbed. But not anywhere near quantities that could make you feel symptoms, let alone overdose
>
> Fentanyl patches are specially designed to do this; they take hours w help of special gels
>
> OD on contact is a myth https://t.co/p8U6gA6SH9
> — Leo Beletsky (@LeoBeletsky) March 4, 2021

The Sheriff's Department said a full report on what was found in the car would not be available until Monday. In the body camera footage, one of the men can be overheard saying that the substance "tested positive for fentanyl."

The Sheriff's Department said Deputy Faiivae and Corporal Crane were each on vacation; neither could be reached on Saturday.

A report about the risks of incidental exposure to fentanyl found that the police and other authorities, including the U.S. Drug Enforcement Administration, have published false information about how fentanyl can become present in the body as well as what leads to an overdose, promoting the notion that a small amount of fentanyl absorbed through the skin can be fatal.

Addiction experts and harm-reduction specialists said this misconception can delay lifesaving help during overdoses and cause emergency responders to report vicarious trauma, compassion fatigue and panic attacks brought on by fear of the drug.

While trying to provide a public health advisory is well intentioned, "this kind of misinformation is definitely harmful," said Professor Beletsky, who was an author of the report with Dr. Marino.

"It misrepresents the signs and symptoms of overdose," he said. "It also adds to the already very elevated levels of stress and burnout and anxiety among law enforcement officers."

It also gets in the way of intervening properly when someone is experiencing a fentanyl overdose.

"If people think that they might die of an overdose from providing emergency assistance — that might cost lives," Professor Beletsky said.

A version of this article appears in print on , Section A, Page 20 of the New York edition with the headline: Video of Officer's Collapse After Handling Powder Draws Skepticism

Public Comment: 638 Riverside - Homeless Services Center - Transit Access Issues

George Rheault

to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, Matthew Grooms

As the planning staff and Planning Board do their level best to approve a terrible project at lightning speed driven by anti-homeless gentrification politics, it feels almost fruitless to attempt to expect any honest and meaningful analysis to be completed in the review of this project.

I will at least try - while I await the publication of more details from the applicant and the planning staff (which of course is essential for forming a complete understanding of what is before the Planning Board).

My focus in this email is on the conditional use requirement regarding transit access.

I should note that the current adult homeless shelter at Oxford Street is VERY close to the HUB (Elm Street Pulse) of the entire Greater Portland METRO network. Therefore, the applicant is desiring to disrupt this simple and easy access to the ENTIRE regional bus network in order to relocate homeless services to a distant outpost that only has one line operating in its vicinity. Indeed the distance between the corner of Oxford Street and the mid-block Elm Street METRO stop is LESS than the distance between the Riverton megashelter front door entrance and the beginning of the Riverside Street megashelter driveway entrance.

Attached is the Route 2 brochure from Greater Portland METRO for the Forest Avenue/Riverton bus line which is supposed to be the lifeline for those utilizing the proposed Riverton megashelter.

I urge the Planning Board to scrutinize that brochure carefully. These are the following questions which should arise in the minds of the Planning Board members after such scrutinizing:

- Has anyone reached out to Greater Portland METRO to discuss the current conditions on Route 2 and whether the heavy reliance that the Riverton megashelter wants to place upon Route 2 will have any adverse implications - short-term OR long-term? Are delays on this route already endemic and would additional users exacerbate any "on-time" performance goals that Greater Portland METRO has for this route?

- Can anyone explain how exactly the "Hannaford/Riverton" stop is negotiated by the bus operators (when the bus goes on and off Forest Avenue to enter and exit the Hannaford shopping complex)? Is the most efficient place for shelter users to wait for a bus to downtown Portland in front of the Hannaford store entrance on the actual Hannaford premises?

- What is the adequacy of the bus stops in the vicinity of the shelter? How many stops have seating? How many stops have covered shelters and what is the condition of those shelters currently (pictures please?)? The applicant and the City should absolutely be required to do an up-to-date inventory and present their findings to the Planning Board since an entire plank of the conditional use application depends on effective transit access.

- It appears from the Route 2 schedule that there are large gaps in service on the current route. "X" under the "Hannaford/Riverton" column suggests that at regular intervals Route 2 altogether SKIPS the most convenient stop in the Riverton area. A representative from Greater Portland METRO should appear before the Planning Board to explain what service is actually like today and what shelter users can expect going forward including what exactly an "X" on the brochure timetables means.

- What is the current capacity of the bus equipment that serves Route 2? Does Greater Portland METRO have a sense of how full a bus is now on this route? For example, if current fare data indicates that say 20 riders regularly occupy morning inbound buses with 40 seats to downtown Portland, does that not suggest that, at best, the Route 2 bus is only able to absorb 20 new riders (presumably shelter guests) per bus trip and therefore any shelter guests beyond that 20 person surplus capacity must wait for a whole other bus on the next timetable before getting a seat?

- How nimble is Greater Portland METRO in terms of adding an extra bus on a route, either consistently or when short-term demand presents itself? Could an extra bus be deployed quickly if a bus operator observes significant cueing at a stop? Indeed, how will chronic overcrowding on Route 2, to the extent it develops after the Riverton megashelter begins operations, be addressed in any meaningful way? Would it take YEARS before more frequency or bus capacity is added here?

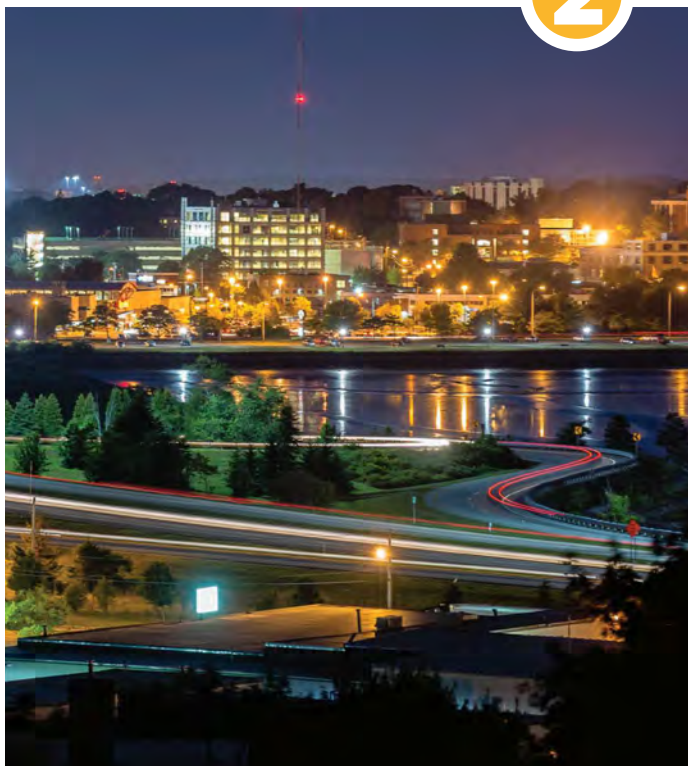
The reality is that the entire thrust of the plan for the Riverton megashelter is to exile those experiencing homelessness from the core of downtown Portland.

It is obvious that the representations that effective and efficient transit service exists within a 1/4 mile of the shelter have NOT been adequately evaluated by planning staff and therefore the Planning Board must make a far deeper inquiry into the questions raised above before it can adequately assess the transit-related prong of the conditional use application.

Effective January 24, 2021

Riverton
FOREST AVENUE

2



SATURDAY
OUTBOUND TO PRIDE'S CORNER

METRO Pulse (A)	Woodford's Corner (B)	Morrill's Corner (C)	Hannaford/ Riverton (D)	Pride's Corner (E)
6:20	6:28	6:33	X	6:45
7:20	7:28	7:33	7:40	X
8:20	8:28	8:33	X	8:45
9:20	9:28	9:33	9:40	X
10:20	10:28	10:33	X	10:45
11:20	11:28	11:33	11:40	X
12:20	**12:28**	**12:33**	**X**	**12:45**
1:20	**1:28**	**1:33**	**1:40**	**X**
2:20	**2:28**	**2:33**	**X**	**2:45**
3:20	**3:28**	**3:33**	**3:40**	**X**
4:20	**4:28**	**4:33**	**X**	**4:45**
5:20	**5:28**	**5:33**	**5:40**	**X**
6:20	**6:28**	**6:33**	**X**	**6:45**
7:20	**7:28**	**7:33**	**7:40**	**X**
8:40	**8:48**	**8:53**	**X**	**9:05**
9:40	**9:48**	**9:53**	**10:00**	**X**

SATURDAY
INBOUND TO DOWNTOWN PORTLAND

Pride's Corner (E)	Hannaford/ Riverton (D)	Morrill's Corner (C)	Woodford's Corner (B)	METRO Pulse (A)
6:50	X	7:00	7:05	7:15
X	7:52	8:00	8:05	8:15
8:50	X	9:00	9:05	9:15
X	9:52	10:00	10:05	10:15
10:50	X	11:00	11:05	11:15
X	11:52	**12:00**	**12:05**	**12:15**
12:50	**X**	**1:00**	**1:05**	**1:15**
X	**1:52**	**2:00**	**2:05**	**2:15**
2:50	**X**	**3:00**	**3:05**	**3:15**
X	**3:52**	**4:00**	**4:05**	**4:15**
4:50	**X**	**5:00**	**5:05**	**5:15**
X	**5:52**	**6:00**	**6:05**	**6:15**
6:50	**X**	**7:00**	**7:05**	**7:15**
X	**8:00**	**8:08**	**8:13**	**8:28**
9:10	**X**	**9:20**	**9:25**	**9:35**
X	**10:00**	**10:08**	**10:13**	**10:23**

SUNDAY
OUTBOUND TO PRIDE'S CORNER

METRO Pulse Elm St (A)	Woodford's Corner (B)	Morrill's Corner (C)	Hannaford/ Riverton (D)	Pride's Corner (E)
8:20	8:28	8:33	X	8:45
9:20	9:28	9:33	9:40	X
10:20	10:28	10:33	X	10:45
11:20	11:28	11:33	11:40	X
12:20	**12:28**	**12:33**	**X**	**12:45**
1:20	**1:28**	**1:33**	**1:40**	**X**
2:20	**2:28**	**2:33**	**X**	**2:45**
3:20	**3:28**	**3:33**	**3:40**	**X**

SUNDAY
INBOUND TO DOWNTOWN PORTLAND

Pride's Corner (E)	Hannaford/ Riverton (D)	Morrill's Corner (C)	Woodford's Corner (B)	METRO Pulse (A)
8:50	X	9:00	9:05	9:15
X	9:52	10:00	10:05	10:15
10:50	X	11:00	11:05	11:15
X	11:52	**12:00**	**12:05**	**12:15**
12:50	**X**	**1:00**	**1:05**	**1:15**
X	**1:52**	**2:00**	**2:05**	**2:15**
2:50	**X**	**3:00**	**3:05**	**3:15**
X	**3:52**	**4:00**	**4:05**	**4:15**

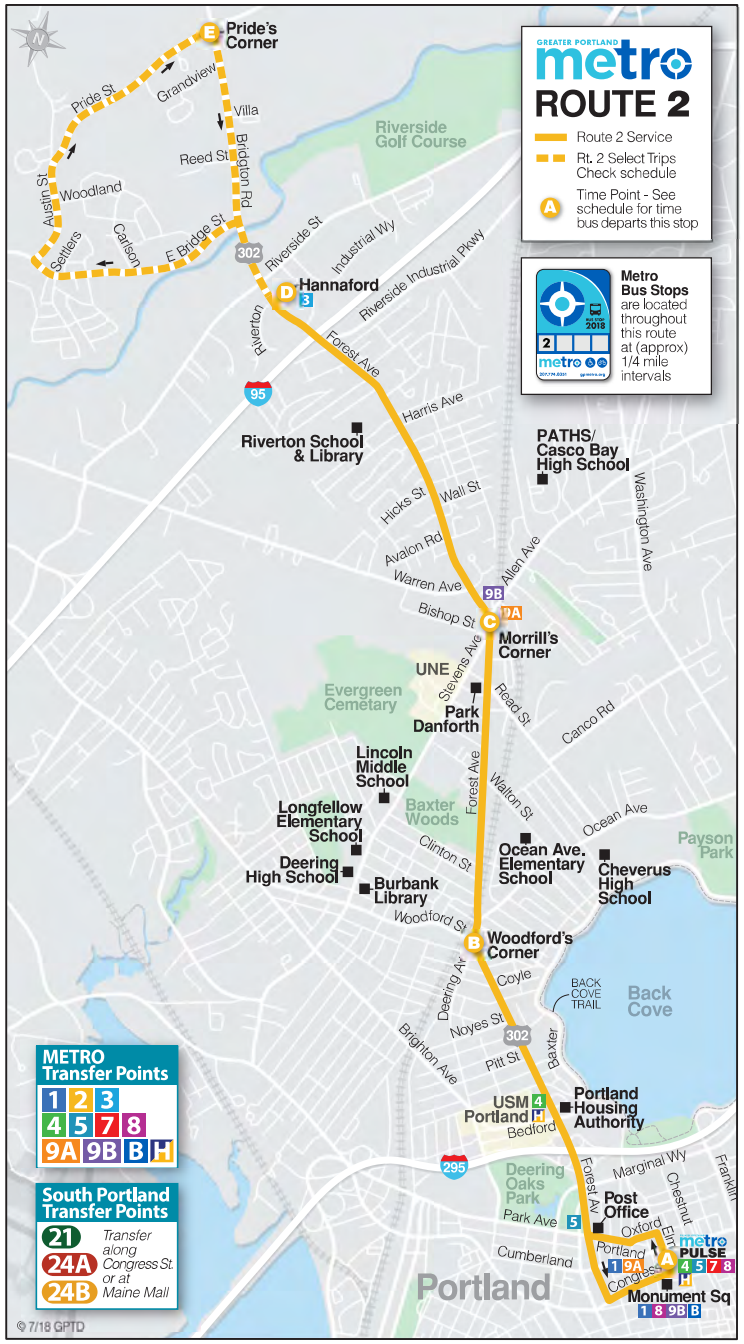
Corey Templeton Photos:
Skyline towards USM/Back Cove biking

GREATER PORTLAND metro
207.774.0351 gpmetro.org

Effective January 24, 2021

MONDAY THROUGH FRIDAY
OUTBOUND TO PRIDE'S CORNER

METRO Pulse Elm St (A)	Woodford's Corner (B)	Morrill's Corner (C)	Hannaford/ Riverton (D)	Pride's Corner (E)
5:45	5:53	5:58	X	6:10
6:15	6:23	6:28	X	6:40
6:45	6:53	6:58	7:05	X
7:15	7:23	7:28	7:35	X
7:45	7:53	7:58	X	8:10
8:15	8:23	8:28	8:35	X
8:45	8:53	8:58	X	9:10
9:15	9:23	9:28	X	9:40
9:50	9:58	10:03	10:10	X
10:20	10:28	10:33	10:40	X
10:45	10:53	10:58	X	11:10
11:15	11:23	11:28	X	11:40
11:50	11:58	**12:03**	**12:10**	**X**
12:20	**12:28**	**12:33**	**12:40**	**X**
12:45	**12:53**	**12:58**	**X**	**1:10**
1:10	**1:18**	**1:23**	**X**	**1:35**
1:45	**1:53**	**1:58**	**2:08**	**X**
2:15	**2:23**	**2:28**	**2:38**	**X**
2:45	**2:53**	**2:58**	**X**	**3:14**
3:15	**3:23**	**3:28**	**X**	**3:44**
3:50	**3:58**	**4:03**	**4:13**	**X**
4:20	**4:28**	**4:33**	**4:43**	**X**
4:50	**4:58**	**5:03**	**X**	**5:19**
5:20	**5:28**	**5:33**	**X**	**5:49**
5:55	**6:03**	**6:08**	**6:18**	**X**
6:25	**6:33**	**6:38**	**X**	**6:50**
7:30	**7:38**	**7:43**	**X**	**7:53**
8:40	**8:48**	**8:53**	**X**	**9:03**
9:40	**9:48**	**9:53**	**10:00**	**X**
10:40	**10:45**	**10:50**	**10:56**	**X**



Please note: Route does not service Prides Corner Park and Ride.

Route map and stops subject to change.

MONDAY THROUGH FRIDAY
INBOUND TO DOWNTOWN PORTLAND

Pride's Corner (E)	Hannaford/ Riverton (D)	Morrill's Corner (C)	Woodford's Corner (B)	METRO Pulse Elm St (A)
6:10	X	6:23	6:28	6:40
6:45	X	6:58	7:03	7:15
X	7:13	7:23	7:28	7:40
X	7:43	7:53	7:58	8:10
8:10	X	8:23	8:28	8:40
X	8:43	8:53	8:58	9:10
9:15	X	9:28	9:33	9:45
9:45	X	9:58	10:03	10:15
X	10:13	10:23	10:28	10:40
X	10:43	10:53	10:58	11:10
11:15	X	11:28	11:33	11:45
11:45	X	11:58	**12:03**	**12:15**
X	**12:13**	**12:23**	**12:28**	**12:40**
X	**12:43**	**12:53**	**12:58**	**1:10**
1:15	**X**	**1:28**	**1:33**	**1:45**
1:40	**X**	**1:53**	**1:58**	**2:10**
X	**2:12**	**2:22**	**2:27**	**2:40**
X	**2:42**	**2:52**	**2:57**	**3:10**
3:14	**X**	**3:27**	**3:32**	**3:45**
3:44	**X**	**3:57**	**4:02**	**4:15**
X	**4:17**	**4:27**	**4:32**	**4:45**
X	**4:47**	**4:57**	**5:02**	**5:15**
5:19	**X**	**5:32**	**5:37**	**5:50**
5:49	**X**	**6:02**	**6:07**	**6:20**
X	**6:18**	**6:28**	**6:33**	**6:45**
6:55	**X**	**7:08**	**7:13**	**7:25**
8:00	**X**	**8:10**	**8:15**	**8:30**
9:05	**X**	**9:15**	**9:20**	**9:35**
X	**10:10**	**10:17**	**10:22**	**10:35**

Brunswick's Tedford Housing plans to build new emergency shelter at Cooks Corner

pressherald.com/2021/08/30/brunswicks-tedford-housing-plans-to-build-homeless-shelter-at-cooks-corner/

By C. Thacher Carter August 30, 2021

After almost a decade of looking to expand, Tedford Housing is proposing a new emergency shelter for Brunswick's homeless.

The 17,568-square-foot facility would be built off Thomas Point Road in Cooks Corner. A preliminary review and a public hearing is scheduled for Sept. 28.

Tedford runs two shelters in downtown Brunswick, one for adults and one for families. The proposed building would replace the existing shelters and consolidate them into one facility with two wings.

Renderings of Tedford Housing's proposed new facility in Brunswick. *Courtesy of Tedford Housing.*

This would increase adult emergency housing capacity from 16 to 24 beds, and the family capacity from six to 10 families. Sixty-four emergency housing beds would be available. The facility would have office space.

"Homelessness continues to be an issue in our community," Tedford Housing Executive Director Rota Knott said. "Our buildings are not appropriate given their age and their configurations for the services that we need to be providing for residents of our community experiencing homelessness."

Between July 2020 and July 2021, Tedford turned away 284 individuals and 74 families due because it didn't have space. In total, thirty-eight adult guests and 15 families were given rooms. The average stay in the adult shelter was 74 days and 124 days for the family shelter.

Tedford Housing's Cumberland Street unit in Brunswick, as seen in this March 2017 file photo (Ben Goodridge / The Times Record)

According to Knott, the demand for beds is not a new issue.

During the 2020 fiscal year the average shelter stay was 88 days for the adult shelter, and 134 days for the family shelter. Prior to the pandemic, which Knott said caused a significant jump in stay-length, the average stay was 53 days in the adult shelter, and 92 days in the family shelter during the 2019 fiscal year.

Tedford has wanted to expand since 2013. Until recently, however, zoning stood in the way.

The Cooks Corner location — a predominantly commercial area in Brunswick — was selected after reviewing hundreds of properties and receiving feedback from clients, Knott said. The location offers clients a wide range of needed services, she added, such as proximity to the hospital, mental health services and Walmart — which provides employment, food and supplies for people.

"The other reason is that there are very few zones in the town of Brunswick where shelters are now allowed as a conditional use," Knott said. "We had to identify those sites and that narrowed it down considerably."

According to Brunswick Planning and Development Director Matt Panfil, of the 27 zoning districts in the growth area, Tedford's facility would be allowed in seven of them.

Knott said she encourages anyone with questions or concerns to contact Tedford Housing.

"We just hope that the neighbors are willing to engage in dialogue with us and to learn about us and what we really are planning," Knott said.

Tedford does not yet know how much the building will cost. Tedford plans to fund construction through gifts, grants and short-term loans and hopes to break ground on the project next year.

According to The U.S. Department of Housing and Urban Development's 2020 annual homeless assessment report, on a single night in January of 2020, 2,097 Maine people were homeless, 141 of which were unsheltered.

This translates to 15.6 out of every 10,000 people experiencing homelessness in Maine on that day, although, Knott said she believes the numbers are greater.

The Maine State Housing Authority has 42 total emergency shelters listed, nine of which are in Cumberland County.

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Public Comment 638 Riverside Street Megashelter: Compare & Contrast Proposed New Homeless Shelter for Brunswick

Assi… Subscribe

0 views

George Rheault <george.rheault@gmail.com> 11:01 AM (1 hour ago)
to Planning Board, Christine Grimando, kkraft, jra...@portlandmaine.gov, Matthew Grooms, jmy, Abigail Reed

Please see attached a recent story discussing the plans for a new small shelter that Tedford is planning on the outskirts of Brunswick.

What things can our incurious, "dog ate my homework" Planning Board and planning staff learn from what is happening up the road?

Of great note is the fact that Kevin Bunker serves on the Board of Directors and has since circa Summer 2017. Very interesting that Mr. Megashelter is also serving as a fiduciary for a homeless services organization that has been actively planning a small shelter! What a Renaissance Man, that Kevin Bunker! He can do BIG and SMALL homeless shelters!

Telford (and of course the powers that be in Brunswick) have gone done a somewhat familiar path as Portland:

1) Use convoluted zoning powers to prevent renovation/capacity upgrades to existing shelter [CHECK!]
2) Locate new shelter close by public housing project serving families [CHECK!]
3) Remove existing shelter from central core of community [CHECK!]
4) Locate new shelter in area that makes it both difficult AND unsafe for homeless to access central core of community from which they have been exiled [CHECK!]

Concerns with building design of Homeless Services Center (infectious disease perspective)

Gloria Driessnack

to planni...@portlandmaine.gov

Dear Planning Board,

I hope this email finds you well. My name is Gloria Sclar and I am a resident of Portland. I work remotely as a public health researcher for Emory University in the Department of Environmental Health.

I am writing to express my concerns with the proposed building design for the Homeless Services Center at Riverside. I have reviewed the July 23 memorandum document that goes over the site plan and conditional use standards. I have many concerns about the building, **but am primarily concerned about the design implications on the spread and transmission of infectious diseases, especially COVID-19.** No doubt this must be on your mind as well, but I wanted to be sure to send an email as I saw no mention of COVID-19 in the memorandum document (this is very concerning...).

In looking at the building plan, it is clear with the current design that a virus like COVID-19 would spread very quickly in this environment. The current design has extremely large open sleeping areas to accommodate 208 guests, as well as a kitchen/cafeteria area with seating for 212. This is *very concerning* to have such large congregate sleeping and eating areas with no structural design that separates groups to help prevent and contain a potential infectious disease outbreak.

Is there an infectious disease risk management plan in place for the operation of this building? What can be done to the actual building design to *prevent* a future outbreak or prevent a severe one? How can the ventilation system be improved to help mitigate this risk? Is it possible to have smaller sleeping areas so guests are better separated throughout the night (rather than a divider which will not be sufficient to prevent transmission)? For example, schools and daycares are able to quarantine single classrooms when a student or teacher tests positive rather than shutting down the entire building. A similar approach could be taken with the Homeless Services Center if it is structurally designed this way.

Thank you so much for your time and efforts on critically reviewing this project! I am just concerned that poor building design has the potential to do more harm than good here.

All best,
Gloria Sclar
25 Sandy Terrace
Portland, ME

654 Riverside Street Property Questions

Subscribe

0 views

Jason Lambert Jul 25, 2021, 8:57:37 AM (yesterday)

to planni...@portlandmaine.gov

Hello,

I live on Ruby Lane in Portland and had a few questions for the developer/city about the subject property:

-Most of the subject property is flat, but there is a precipitous drop at the back that leads to the Presumscot River. Are there plans for a fence here?

-On August 30, 2010, the State of Maine Department of Agency produced a report on this site. According to this report of the State, remedial action was taken to remove almost 300 tons of contaminated soil from the property. The report also says that, “Use of the property shall be limited to industrial, commercial, municipal, and other non-residential uses and not be residential without prior written permission of the Department.” Has the city obtained this permission? (see attached)

-In thinking about the contaminated soil, is the city going to allow clients to sleep outside on the property if they so choose? If so, are there specific areas where remediation occured that will be marked off.

-Has there been any contact with the city of Westbook to discuss potential impact of this project on the residential neighborhoods just across the river?

Attached is the VARP associated with this site.

Thank You,
Jason Lambert

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF PORTLAND ATTN: GREG MITCHELL DIRECTOR OF ECONOMIC DEVELOPMENT 389 CONGRESS STREET PORTLAND, ME 04101	))))))	COMMISSIONER'S CERTIFICATION OF COMPLETION OF REMEDIAL ACTIONS UNDER A VOLUNTARY RESPONSE ACTION PLAN

FILE COPY

JURISDICTION

This certification of completion of a Voluntary Response Action Plan ("VRAP") is made pursuant to the authority vested in the Commissioner of the Maine Department of Environmental Protection ("Department") or the Commissioner's delegee under 38 M.R.S.A. Section 343-E.

FINDINGS OF FACT

1. The covered property (property and/or site) is the former Lucas Tree site located at 636 Riverside Street in Portland, and is identified on the City of Portland Tax Map 322 as Lot A-001 and Tax Map 323 as Lot A-003. The site is 40.85 acres in size. A map of the property is included as Attachment A.

2. The property use in the area is mixed residential and commercial.

3. A Phase I Environmental Site Assessment (ESA), a Phase II ESA, and a Supplemental Phase II ESA were prepared by Tewhey Associates ("Tewhey") in September and December of 2005 and January 2008, respectively, with funding from the City of Portland's Municipal Brownfields Program. These reports identified two areas requiring remedial actions: the spent sand blast grit area and the former greenhouse area.

4. In July 2010, Ransom Environmental Consultants, Inc. ("Ransom") directed remedial activities on the property. Under Ransom's direction, soils were removed from both areas of contamination and loaded on trucks for appropriate disposal. The spent sand blast grit area was cleaned to a visual standard, as earlier sampling had demonstrated that contamination was directly related to the easily identified black sand blast grit. The former greenhouse area was excavated to a standard 2 feet below grade level, based on earlier sampling results for the contaminant of concern, arsenic. Post excavation sampling demonstrated that soils had been cleaned up to typical background in 5 of the 6 samples, with one sample area having a higher level. Given that the bulk of the contaminated soil volume was removed from this area, the actual risk from this small hotspot area is low, and additional remedial action will not be necessary. A total of 296.74 tons of arsenic contaminated soils and spent sand blast grit were excavated from the property and sent to Commercial Paving and Recycling in Scarborough, Maine for recycling. The remedial actions are documented in a letter report dated August 23, 2010 and submitted by Ransom entitled "Lucas Tree Site, 636 Riverside Street, Excavation and Remediation Activities".

CITY OF PORTLAND ATTN: GREG MITCHELL DIRECTOR OF ECONOMIC DEVELOPMENT 389 CONGRESS STREET PORTLAND, ME 04101	2 COMMISSIONER'S CERTIFICATION) OF COMPLETION OF REMEDIAL) ACTIONS UNDER A VOLUNTARY) RESPONSE ACTION PLAN)

CONCLUSIONS

1. The City of Portland, as an applicant, has submitted a Voluntary Response Action Plan application to the Commissioner pursuant to 38 M.R.S.A. § 343-E for the property located at 636 Riverside Street in Portland, Maine which is identified on the City of Portland Tax Map 322 as Lot A-001 and Tax Map 323 as Lot A-003 .

2. Site assessments conducted at the site included investigations and reports that adequately identified the nature and extent of contamination associated with identified sources at the property.

3. Actions addressing identified contamination on the property have been completed. These actions included the removal of arsenic contaminated sand blast grit and soils associated with a former greenhouse.

4. Provided the City of Portland, as applicant, and their successors and/or assigns comply with the conditions of this certification, the response actions that have been completed and the activities associated with the continued use of the site will not cause, contribute, or exacerbate releases, or threatened releases, if they exist at the site, that are not required to be removed under the VRAP.

THEREFORE, pursuant to 38 M.R.S.A. § 343-E(5), Mark Hyland, Director, Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection certifies, subject to the conditions set forth below, that remedial actions have been completed at the property located at 636 Riverside Street in Portland, Maine, identified on the City of Portland Tax Map 322 as Lot A-001 and Tax Map 323 as Lot A-003, and further described in Book 27870, Page 299, at the Cumberland County Registry of Deeds. Upon issuance of this CERTIFICATE, the City of Portland, as applicant, and the persons qualified for protection under 38 M.R.S.A. § 343-E(6) are entitled to the protection from liability to the extent provided by 38 M.R.S.A. §343-E(1) and (5). This protection from liability is limited to the matters addressed by and identified by the environmental reports and is subject to the qualifications and conditions set forth below and in 38 M.R.S.A. § 343-E.

CONDITIONS

1. The future installation of potable wells on the property is prohibited without prior written permission from the Department.

2. Use of the property shall be limited to industrial, commercial, municipal and other non-residential uses and not be residential without prior written permission of the Department.

3. A copy of this certificate for the property located at 636 Riverside Street in Portland shall be recorded at the Cumberland County Registry of Deeds. A copy of the recorded document must be supplied to the Department.

CITY OF PORTLAND ATTN: GREG MITCHELL DIRECTOR OF ECONOMIC DEVELOPMENT 389 CONGRESS STREET PORTLAND, ME 04101	3))))	COMMISSIONER'S CERTIFICATION OF COMPLETION OF REMEDIAL ACTIONS UNDER A VOLUNTARY RESPONSE ACTION PLAN

4. A Declaration of Environmental Covenants, as defined in 38 M.R.S.A. § 3001 et seq., that is consistent with this Certificate and acceptable to the Department must be prepared and recorded at the Cumberland County Registry of Deeds. A copy of the recorded document must be supplied to the Department.

DONE AND DATED AT AUGUSTA, MAINE, THIS 30TH DAY OF AUGUST 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: _____
Mark Hyland, Director
Bureau of Remediation & Waste Management

STATE OF MAINE
KENNEBEC, ss.,

August 30th, 2010

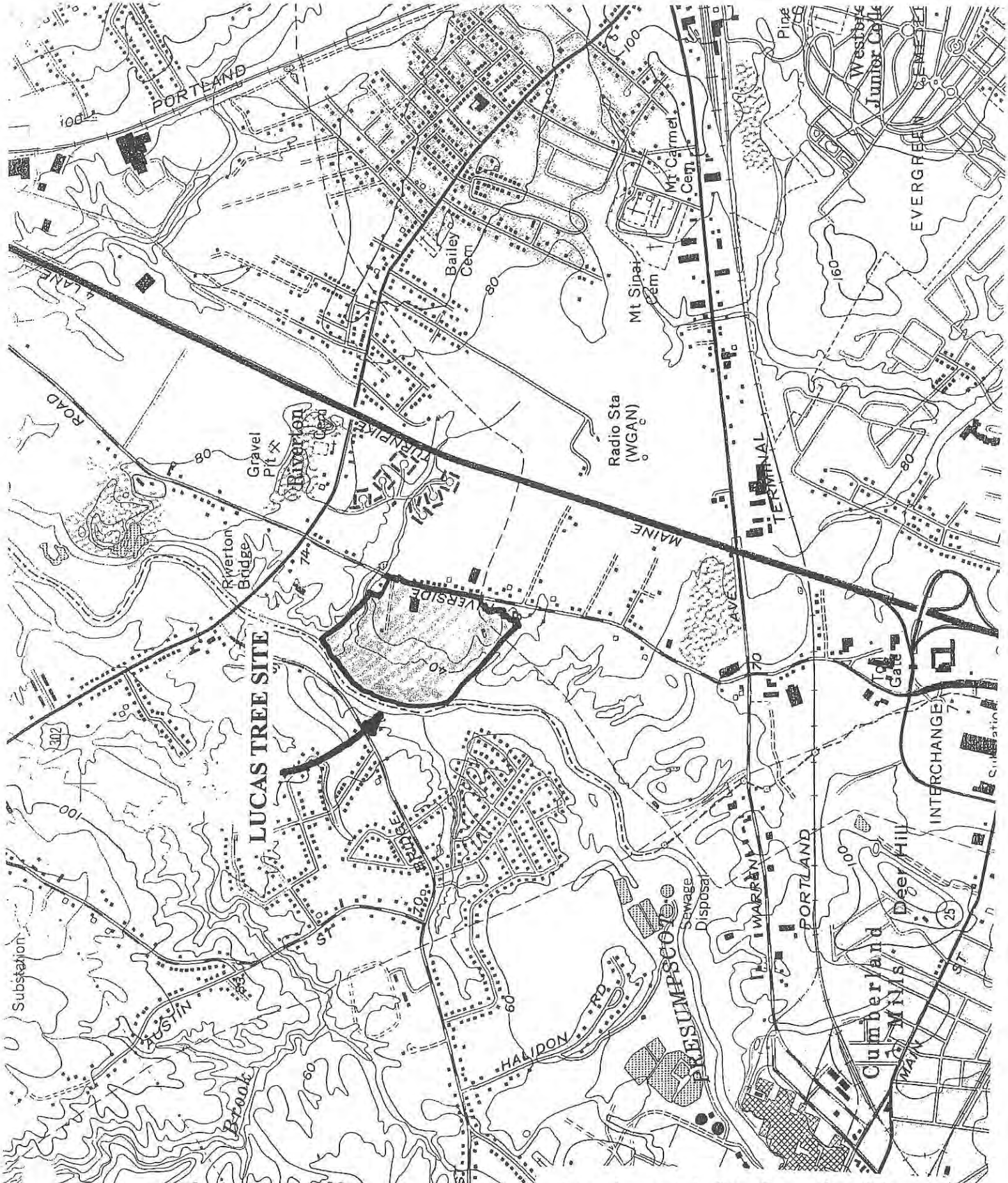
Then personally appeared the above-named Mark Hyland, Director, Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection and duly authorized delegee for the Commissioner, and acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of the Department of Environmental Protection.

Before me,

Laura L. Gay
Notary Public

Laura L. Gay
(Print Name)

This order was prepared by Nicholas J. Hodgkins, Bureau of Remediation & Waste Management.



Attachment A-Site Location Map

Riverton Homeless Shelter 654 (638) Riverside Street

0 views

Skip to first unread message

Subscribe

Jason Lambert
unread,
Jul 30, 2021, 8:41:16 AM (6 days ago)

羊

to planni...@portlandmaine.gov

Dear Planning Board;

First of all, thank you for holding a workshop on the Riverton Shelter proposal on Tuesday, July 27th. It was informative, and I appreciate that the board asked many great questions. I hope it is evident to all that this is not a project to be rushed, if it is to be built at all. Thank you in advance for reading the following concerns.

-In reference to a comment Mr. Dunfey made about Riverton residents thinking every person experiencing homelessness is horrible. I don't hear that at all. In fact, Riverton is the only neighborhood in the city that has been willing to accept a shelter. The concern is that the proposed shelter would be the second largest low-barrier shelter in New England, and it is going into a largely residential neighborhood on the edge of town.

-There was nearly 300 tons of contaminated soil removed from the property. If the developers have the appropriate permits and certificates from the state, why wouldn't they include them in their proposal? It makes it seem as though the developer is hiding something. Also, is the developer aware of where the contaminated soil was removed? Are plans for gardens away from these areas?

-The developer expressed much concern about erecting a fence because of fears it would appear prison-like, yet the proposal creates sight lines to watch over sleeping guests. What is more prison like, sight lines, or a fence? The back of this property abuts a steep decline that leads to a river. Wouldn't it be prudent to put up a fence there to avoid accidents?

-In their proposal, the developers shared a map that only showed the industrial properties that directly abut the subject property, yet Terrance Pond Apartments is right across the street, and Riverton Park is very close by. Why weren't these properties included in the map? Also, there are residential homes directly across the river in Westbrook. This area around the subject property is much more residential than the developer led the board to believe.

-Lastly, shouldn't the neighborhoods along East Bridge Street in Westbrook be part of this discussion?

Thank you for taking the time to read through my concerns.

Sincerely;
Jason Lambert
Ruby Lane

Justin B
to planni...@portlandmaine.gov

To the Members of The Planning Board,

My name is Justin Beth... a renter at 86 Congress St. Apt. 6. I am writing to you regarding many concerns about the proposed Riverside Homeless Service Center with regards the Conditional Use Standards and to unintended impacts on the city of Portland. I would urge you to take your time and ignore the pressure to fast track this approval process. The public (myself included) is very sensitive to making sure this is done with great care and thorough detail.

I am primarily concerned with impact to traffic and to pedestrian safety, related to this project. With the increased population, due to new residents at the proposed shelter, will result in increased demands on public transportation and will result in higher traffic volume at the intersection of Riverside Street and Forest Avenue. During rush hour, the traffic is already incredibly backed up and this will only get worse. Add to that the need for more people crossing the road at this busy intersection, which increases the frequency at which pedestrians may be at risk of injury or death.

We are talking about progress lives. Please.... take the time to get this right, because their lives are literally in your hands.

Sincerely,
Justin Beth
justin.p.beth@gmail.com
Cell: (207) 841-3464

HOMELESS SERVICE CENTER, RIVERSIDE STREET

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Leslie E. Lowry
to planni...@portlandmaine.gov

Jul 27, 2021, 4:17:00 PM (yesterday)

Leslie E. Lowry, Esq.

Attorney

JENSEN BAIRD

Ten Free Street

P.O. Box 4510

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11 MAIN STREET, SUITE 4
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(207) 985-4676 (Phone)
(207) 985-4932 (Fax)

July 27, 2021

Members of the Planning Board
City of Portland
387 Congress Street
Portland, Maine

Re: Homeless Service Center, Riverside Street

Dear Planning Board Members:

We are submitting this letter on behalf of Suburban Propane as part of the public planning process for the Riverside Street Homeless Service Center project begins.

First, Suburban wants to be clear that it is not opposed to the concept of the Homeless Service Center being sited on Riverside Street. Second, Suburban believes it is important for the developer and the Board to understand the area and take appropriate account for the circumstances existing in this neighborhood.

As an initial matter, we want the Board to consider how the IM zone is described in the Ordinance as follows:

> "To provide zones in areas of the city in which low- and moderate-impact industries and transportation-related uses will coexist. I-M and I-Ma zones are located on arterials or collectors. The I-Mb zone is similarly located on the peninsula. These locations provide for direct access onto arterials, thereby protecting residential neighborhoods from drive-through traffic. The purpose of the I-M, I-Ma and I-Mb industrial zones is also to provide for larger industrial buildings and for the limited or controlled use of areas outside of structures for storage of materials and machinery. These facilities often require large volumes of

> imported materials and products which result in large volumes of shipping and receiving. Often uses may be highway-oriented and transportation-related, thus relying on citywide and regional transportation infrastructure. Industrial uses in these moderate-impact industrial zones may require separation from higher-impact uses."

With the potential of increased foot traffic along Riverside and through Suburban Propane's property, there are security concerns that will need to be addressed. The concerns fall under two general categories Employee/Customers Safety and Plant/Facility Safety. The safety of our employees, customers and the general public is our biggest concern and below points out categories that identify some of the most serious concerns that could lead to injury in the event anyone that tampers with or does not follow proper safety protocol or which can adversely effect Suburban Propane's ability to run the business.

Employee/Customer Safety

- Employees & customers getting to and from their vehicles while accessing the building, the portion of the parking lot used by employees and customers is not fenced or secured.
- Entrance to the building by people looking to use the bathroom or asking for money, food, etc.

Plant/Facility Safety

- Accessing parts of the facility that are highly dangerous is a major concern, note there is over five thousand feet of piping connecting the below equipment that run both Liquid and Vapor Propane. Tampering with any of this equipment could result in serous injury:
    - Bulk Liquid Propane storage of 3-30,000 gallon tanks.
    - 3 Liquid Propane loading racks used to fill Bobtail delivery trucks
    - Pump house used to offload and charge liquid propane tanks
    - A cylinder charging station
- There are 4 Bobtails and 5 Service vehicles with cranes and often loaded with tanks that frequently enter and exit the facility.
- At various times of the day and night Liquid Propane tractor trailers carrying up to 10,000 gallons enter and exit the facility to transfer product.
- Dismantling or tampering with any of the safety equipment i.e. fire extinguishers, (ESV) emergency shut off values or security cameras could result in system failure and cause serious injury.

There are similar safety concerns from other abutting business, each of which also use heavy machinery involved in their industrial operations.

- Schnitzer Northeast – This is a large scrap metal recycling plant. The equipment used at the facility is highly dangerous.
- Lucas Tree Service – Tree maintenance and removal service business. They have vehicles and equipment on location that would provide attractive shelter for those not inclined to use the shelter facility.
- Seacoast Scaffold – This company is in the business of supplying large contractors with scaffolding equipment which is located on-site at Riverside.

We expect that the developer is aware of these existing conditions in this vicinity. We expect that the Board and the developer will work together to ensure a facility that is not only safe for those utilizing and working at the HSC, but will also undertake all reasonable efforts for the safety of those persons using and those who are simply "attracted" to the area of the facility. In that regard, a full understanding of the risks to all of those persons and the impact on the neighbors needs to be realistically addressed with forethought.

Suburban looks forward to reviewing the materials with these primary goals of safety and security in mind.

Sincerely,

Leslie E. Lowry

portlandbikeped

PORTLAND BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE

August 17, 2021

Honorable Members of the Portland Planning Board,

The Portland Bicycle Pedestrian Advisory Committee (PBPAC) has several transportation-related comments and concerns regarding the proposed Riverside St. 200-bed homeless services center.

Because this is a facility intended primarily for non-auto users, proposed to be located in a location with auto-centric design parameters, it is critical that a comprehensive Transportation Demand Management plan be developed that incorporates all modes of transportation and clearly indicates how trip generation will be managed as a condition of approval. A TDM would be an opportunity for a more comprehensive set of action steps around facility transportation needs.

Our requests are in **Bold** font:

- **Up-front details surrounding the shuttle van service including operating hours, route map, on-demand availability, and funding**. Being that a shuttle service of this type is sensitive to annual City Council budget processes, it is necessary to ensure that this service be maintained.

- Given that Portland already has at least car-camp where people live in their vehicles, an **effort should be made to understand how many shelter and day-services guests may be utilizing automobiles .** This may be challenging as the rigorous asset screening of shelter guests may make them reluctant to admit they have access to a car if it hurts their shelter eligibility. Nevertheless, given that the proposal is for a large shelter & service center on the City's periphery that is most easily accessed via automobile, one should expect the facility to generate more traffic (whether it be their own vehicle or via drop-off) than would be expected from a downtown location.

- The Management Plan included with the proposal does not include sufficient detail regarding pedestrian access to the facility. While it notes that a sidewalk is in place between the proposed location and the nearest METRO bus stop, the proposal does not indicate the adequacy of this sidewalk. Nor does it

address the adequacy of the pedestrian conditions beyond this single street segment, which will undoubtedly be in much greater use if the facility is located at this location. Nor is there any indication of the presence of any bicycle infrastructure on surrounding streets or an assessment of cycling conditions, or compliance with the City's Complete Streets guidelines. **Therefore, we recommend the Planning Board request a pedestrian and bicycle network adequacy assessment for all arterial street segments within one mile of network distance of the proposed facility location**. **Any deficiencies, such as non-ADA compliant sidewalks, lack of safe pedestrian crossing, and lack of safe bicycle routes or facilities on high speed roads should be required to be corrected as a permitting condition.**

- While it is laudable to promote transit use, and essential that a shuttle service to the proposed facility be provided, it cannot be assumed that all users will have access or feel comfortable using METRO bus services to reach the facility (for whatever reasons). **PBPAC therefore requests a full assessment of Forest Avenue between downtown Portland and the intersection with Riverside Street for full ADA level of service. If any sections are found deficient, they should be required to be funded for rebuild as a permitting condition.**

- Many users of the proposed facility will likely make extensive use of the routes outside the traditional street network. Therefore, **a full assessment of the trail and railroad network and how these routes are utilized and accessed should be provided.** [See attached trail map detail, Exhibit A]

- Regarding winter maintenance: **The City should be required to make the entire length of Forest Avenue a high-priority City-cleared sidewalk notably the gap between I-295 and Morrills Corner.**

- It must be noted that there have been recent Portland fatalities along busy byways poorly designed for pedestrian use. Edward Blumenthal (age 57) died along the stretch of Congress Street that crosses the Fore River sometime in September 2017. Robert Belanger (age 58), struck by a city truck hauling snow, died along outer Congress Street in March 2018. In both cases, the circumstances surrounding these pedestrian deaths remained mostly unexplained to the public although inadequate accommodations for safe walking (especially after dark and during poor weather) may have played a significant factor in each death. The members of the Planning Board should recognize the similarities between these deaths (and others like them) and

the possible implications for the hundreds of shelter guests each month that will be traveling to and from the new Riverside facility in the years ahead.

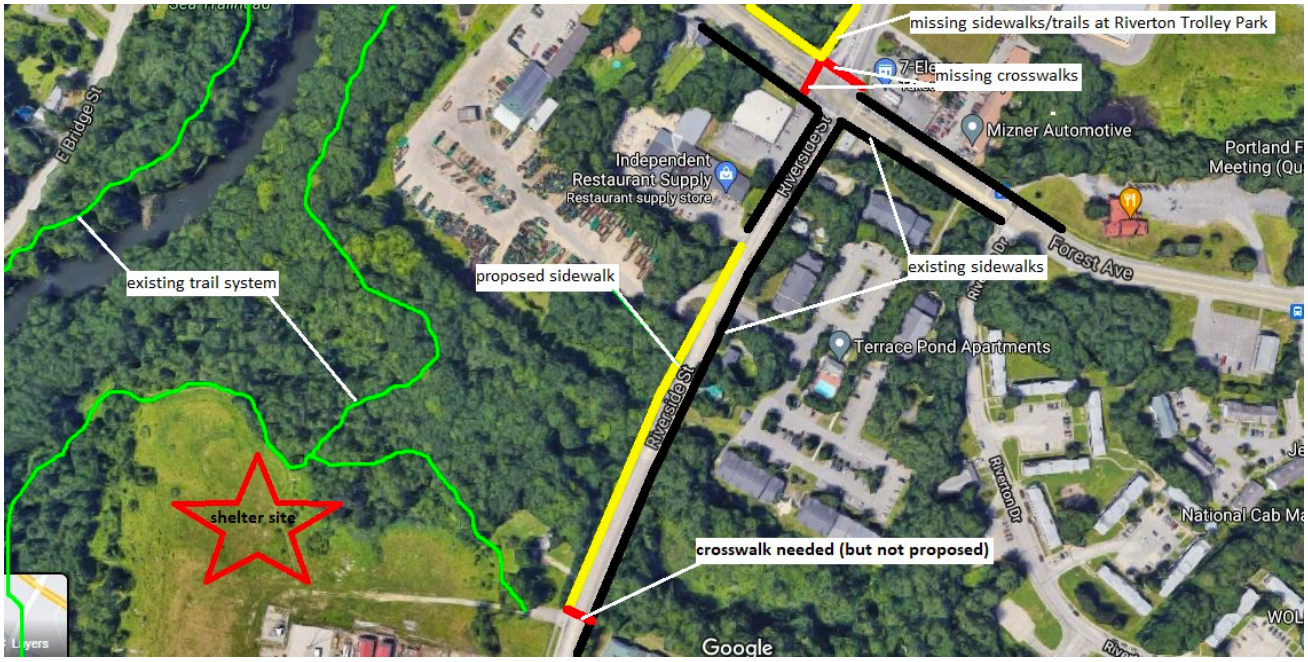
To be clear, our concerns are purely transportation-related, and our membership has diverse opinions about the merits of this proposal. However, we feel about the proposal or city homeless services policies, we stand united in believing that these transportation concerns should be addressed.

Sincerely,

Zachary Barowitz, Chair

The Portland Bicycle and Pedestrian Advisory Committee is an ad-hoc group of Portland-area residents working to make the city and region a better place to walk, bicycle, and wheel chair. We advocate and educate on bicycle, transit, and pedestrian issues, including handicap accessibility, with support from the city's Healthy Portland office, and in collaboration with other offices and organizations including the Bicycle Coalition of Maine, Portland Trails, PACTS, the Department of Public Services and the Planning Department.

EXHIBIT A



Map/image courtesy of Jaime Parker

Sally Bowden-Schaible
to planni...@portlandmaine.gov

To the Planning Board:
I urge you to postpone any approval given to proceed with the HSC on Tuesday. I will be more specific in a follow-up email and in my comments that I will give on Tuesday. I have concerns about the design and location of the building and believe a postponement is important in order to address the questions many members of the community have.

Thank you,

Sally Bowden-Schaible, LCPC, CCMHC
1sallybs@gmail.com
207.939.3254

27 Birchvale Dr
Portland, ME 04102

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Letter urging a pause to approval for Riverside HSC proposal

Sally Bowden-Schaible
Aug 21, 2021, 1:12:59 PM (yesterday)
to planni...@portlandmaine.gov

To the Portland Planning Board:

As a clinical mental health counselor with nearly 35 years of experience, I have worked for organizations such as Shalom House, York County Counseling Services Inc., Crisis & Counseling, and the ACCESS Team. And many years ago, I provided regular consultation to the staff of what was then the Family Crisis Shelter and is now Through These Doors. Most of my clients over these years have experienced significant trauma (emotional, physical, sexual abuse, neglect, abject poverty), so I understand the complexities inherent in providing appropriate support and treatment for these individuals.

As you know, there are many reasons people become homeless—and traumatic and abusive experiences further complicate those reasons. Persons experiencing mental illness, addiction, and poverty, for example, oftentimes also have experienced significant trauma increasing their vulnerability during times of crisis—such as when facing homelessness. It is hard enough to negotiate life challenges at the best of times, so needing to negotiate in ways that are safe and non-traumatizing in **a large shelter system at the edge of town is a horrible option to have face.**

My concern extends to the geographic closeness of a Portland Trails trailhead where there could be easy access to secluded, unmonitored trails and wooded areas for using or dealing drugs and/or alcohol. I am also concerned about the safety of women (and vulnerable men and transgender persons) who could be assaulted on the trail.

A model of a 200-bed shelter where adults in crisis (men, women, transgender persons of all ages who have had *adverse life experiences* of a wide range) are together, even if for a short period of time, only adds to the likelihood that they will experience further trauma. And ***further trauma complicates the path of healing and recovery*** which, in turn, perpetuates the suffering and probable need for treatment programs, services, shelter, etc. in the future.

From a financial perspective, as well as from a humanitarian perspective, to proceed without seriously considering this reality is short-sighted and, I believe, irresponsible. In addition to the cost of human lives, including costs to the health and well-being of the community and society as a whole, there will be the financial costs to clean up, repair, and re-develop a shelter system that cannot succeed for the long-term.

Trauma-Informed Care (TIC), which *includes* ***design of buildings*** such as a homeless shelter, is considered "best practice". And the research increasingly has become clear as to what a trauma-centered shelter design needs to consider. *(I can provide you links to these documents if you are interested in reviewing them. I've provided one below.)* The model proposed by the City and Developers Collaborative does not appear to have taken these needs into consideration.

Psychologist, Joe Colletti, PhD, a social reformer, educator, consultant in California with years of experience working to end homelessness wrote: *"As shelters developed over the last few decades, the impact of trauma on a homeless person's health and well-being was not earnestly considered when designing a shelter or providing services and care. Although shelters may have trauma-informed trained staff, often the shelter environment and physical surroundings are not trauma-informed."*

I urge you to pause in this approval process to consider the *MANY* flaws in the design and in the location of Developers Collaborative and the City's Homeless Service Center model.

Thank you for the work you do on behalf of the City of Portland and thank you for considering the information being presented to you.

Respectfully,

Sally Bowden-Schaible, MS, LCPC, CCMHC
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Portland, ME 04102
207.939.3254
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https://homelessstrategy.com/author/joecolletti/

Sally Bowden-Schaible

To the Planning Board—

I thought I would forward a summary from a large review of data gathered related to COVID transmission and homeless shelters. Also, Maggie Stanley asked questions about staffing, so I'm also attaching a link to HUD staffing guidance:

https://files.hudexchange.info/resources/documents/COVID-19-Homeless-System-Response-Case-Management-Ratios.pdf

RESEARCH RELATED TO COVID transmission and homeless shelters:

ABSTRACT
Background: People experiencing homelessness (PEH) may be at risk for COVID19. We synthesised evidence on SARS-Cov-2 infection, transmission, outcomes of disease, effects of non-pharmaceutical interventions (NPI), and the effectiveness of strategies for infection prevention and control (IPC).
Methods: Systematic review of articles, indexed in electronic databases (EMBASE, WHO Covid19, Web of Science), institutional websites and the Norwegian Institute of Public Health's live map of COVID-19 evi- dence, and published from December 1st, 2019, to March 3rd, 2021. Empirical papers of any study design addressing Covid-19 and health(-related) outcomes in PEH or shelters' staff were included. (PROSPERO- 2020-CRD42020187033)

Findings: Of 536 publications, 37 studies were included (two modelling, 31 observational, four qualitative studies). Random-effect meta-analysis yields a baseline SARS-Cov-2 prevalence of 2 32% (95% Confidence- Interval, 95%CI=1 30 334) in PEH and 1 55% (95%CI=0 79 231) in staff. In outbreaks, the pooled preva- lence increases to 31 59% (95%CI=20 48 42 71) in PEH and 1480% (95%CI=10 73 18 87) in staff. **Main IPC strategies were universal rapid testing, expansion of non-congregate housing, and in-shelter measures (bed spacing, limited staff rotation, reduction in number of residents).**

Interpretation: 32% of PEH and 15% staff are infected during outbreaks of SARS-Cov-2 in homeless shelters. Most studies were conducted in the USA. No studies were found quantifying health-related outcomes of NPI. Overview and evaluation of IPC strategies for PEH, a better understanding of disease transmission, and reliable data on PEH within Covid-19 notification systems are needed. Qualitative studies may serve to voice PEH and shelter staff experiences, and guide future evaluations and IPC strategies.

From page 18:
As the quality of included studies varies, findings should be considered with caution. Yet, they clearly suggest that PEH are at high risk of being infected with SARS-Cov-2, especially in case of outbreaks in shelters. Potential pathways for transmissions deserving further investigation are the "mobile nature of the community and use of multiple homeless service sites among residents" [37], crowded sleeping arrangements and difficulties in adhering to recommended behavioural interventions due to lack of resources and private space. Furthermore, PEH face serious mental health challenges [38,53] and economic difficulties that prevent them from accessing preventive material and maintaining physical distancing in general [58].

FROM: A. Mohsenpour et al., **SARS-Cov-2 prevalence, transmission, health-related outcomes and control strategies in homeless shelters: Systematic review and meta-analysis, EClinicalMedicine (2021)**, https://doi.org/10.1016/j.eclinm.2021.101032

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The Increasing Need for Trauma-informed Care Shelters

Joe Colletti, PhD/Policy Insights/August 3, 2020
Last Updated August 3, 2020 / 1 Comment

Merely Creating Conventional Shelters will Minimally Reduce the Number of Homeless Persons Who Are Languishing on the Streets

It is time to realize that

- many homeless persons are not willing to live in large open spaces for long periods of time with many people they do not know and some that they may know but do not trust and a few that they fear;
- for a significant number of homeless persons, living on the streets in survival mode is the preferred choice over living in a shelter that is not trauma-informed; and
- the physical and social environment of homeless shelters can contribute to traumatizing and re-traumatizing experiences to shelter residents.

Trauma-informed shelters can eliminate many of the reasons why persons living homeless on the streets refuse to stay in a shelter.

Reasons include:

1. Do not want to live in an open warehouse type setting with little or no privacy day after day;
2. Living in a facility that offers little room for movement;
3. Lack of confidence that another shelter stay will be different from previous stay(s);
4. Will not be able to follow all the early check-in and early wake-up rules because of a disability, illness, work, and appointments;
5. Concern for personal safety once inside the shelter;
6. Feel too vulnerable to potential verbal and physical abuse from others;
7. Fear of potential violence by others to self and others;
8. Do not want to be separated from a partner, friend, or pet;
9. Very limited space with locks to store personal belongings;
10. Having to leave the shelter and possessions behind during the day;
11. Concern that personal possessions will be stolen;
12. Fear of having personal possessions thrown away;
13. Lack of privacy while using restroom and shower;
14. Unsanitary conditions;
15. Fear of other people's infectious diseases;
16. Feelings of shame, blame, guilt, and stigma;
17. Inadequate staffing especially overnight;

18. Living in a shelter may be filled with one confrontational experience after another with staff;
19. Insufficient supportive services to obtain permanent affordable housing; and
20. Shortage of permanent affordable housing.

Next Steps

An increase in trauma-informed shelters is necessary in order to eliminate many of the reasons why homeless persons languishing on the streets refuse to live in a shelter and to encourage them to end their homelessness experience by obtaining and maintaining permanent housing.

As shelters developed over the last few decades, the impact of trauma on a homeless person's health and well-being was not earnestly considered when designing a shelter or providing services and care. Although shelters may have trauma-informed trained staff, often the shelter environment and physical surroundings are not trauma-informed.

Principles for Trauma-informed Design and Tenets of Trauma-informed Care

Trauma-informed shelters incorporate trauma-informed design into the physical environment of the shelter to support the tenets of trauma-informed care and evidence-based practices, which also integrate well with the trauma-informed approach of Housing First, Harm Reduction, and Progressive Engagement.

Principles for Trauma-informed Design

The Substance Abuse and Mental Health Services Administration (SAMHSA) model provides three principles that serve as guidelines for trauma-informed design

- ***Realizing*** *how the physical environment effects [sic] an individual's sense of identity, worth, dignity, and empowerment*
- ***Recognizing*** *that the physical environment has an impact on attitude, mood, and behavior, and that there is a strong link between our physiological state, our emotional state, and the physical environment.*
- ***Responding*** *by designing and maintaining supportive and healing environments for trauma-experienced residents or clients to resist re-traumatization.*

SAMHSA's design guidelines and recommendations for trauma-informed care design focus on 1) aesthetics; 2) spatial layout; 3) visual interest; 4) color; 5) furniture; 6) lighting/daylighting; 7) plants; and 8) art. SAMHSA has also described what each focus of design implies.

1. **Aesthetics**

- *Facilities need to be aesthetically pleasing – not institutionally sparse – but visual complexity should be kept to a minimum*
- *Visual complexity reduces a service environment's attractiveness. Visual complexity was determined by factors such as the irregularity, detail, dissimilarity, and quantity of objects; the asymmetry and irregularity of their arrangement; and the variations in color and contrast.*
- *Research has shown that an agency that was perceived as pleasant, beautiful, well kept, above average, neat, calming, efficient, etc., was considered more professional, believable, and offering a higher level of customer service in handling a customer complaint than one which was perceived as disorganized, unpleasant, etc.*
- *Staff and volunteers should avoid clutter, piles of paperwork or other stacks of boxes or supplies that may prove distracting or irritating to residents or clients.*

2. **Spatial Layout**

- *Social density is measurable. Crowding is an emotional response to density.*
- *How space is laid out can have a significant impact on individuals' perception of space, and have a profound impact on mood and behavior.*
- *If space is perceived as open, with clear sightlines and few barriers, it will increase the sense of safety as well as that of "spatial availability," which mitigates perceived sense of crowding. Simple, linear and easy to navigate space is calming.*
- *Emphasis on personal space, i.e. individual chairs with arms, choices in where/with whom to sit, quiet areas vs. engaged areas, etc.*

3. **Visual Interest**

- *Regularity, detail, similarity, an appropriate quantity of objects, the symmetry and regularity of their arrangement, and coherent variations in color and contrast.*
- *Can serve as a distraction from perceived crowding and stress.*
- *A land or waterscape painting that can serve as a connection to nature is calming.*
- *Sight lines should be unobstructed as much as possible to reduce perceived crowded and stress. Too much visual complexity can increase stress and anxiety.*

4. **Color**

- *Avoid deeply hued warm colors (i.e. red, orange, yellow) that may arouse negative emotions.*
- *Cool colors (i.e. blue, green, purple) have a calming effect.*

- *Lighter-colored rooms are perceived as more open, less crowded ("spatially available"), and thus safer and more calming.*
- *Avoid the use of arousing colors in confined spaces to help reduce feelings of crowdedness. Avoid stark white walls.*

5. **Furniture**

- *Durable and easy to clean.*
- *Arrangement of furniture needs to be considered for how it affects residents' sense of safety, perceived crowdedness, and relationship to staff (e.g., communicative or authoritative).*
- *Sitting face-to-face across a desk or table may be perceived as confrontational, whereas sitting corner to corner invites conversation and interaction.*
- *In waiting or common areas, orient seating so users are facing out from sheltering walls.*
- *Seating can be arranged to increase socialization, which can be a challenge for homeless individuals but is mentioned in research as an important benefit of being in a shelter, and a means of developing social networks to support transitioning into more permanent housing.*
- *Allowing residents to rearrange a chair or other small pieces of furniture enhances their sense of control and independence.*
- *Natural materials and colors increase connection to nature and a sense of calm.*

6. **Lighting/Daylighting**

- *Rooms with more natural light appear less crowded.*
- *Rooms with window space (even if blinds are closed) can make a space appear less crowded and more spatially available.*
- *Quality of light, i.e. color temperature and CRI, impacts mood and behavior.*
- *Lower levels of illumination also can mitigate perceived crowding and the resulting sense of stress and discomfort.*
- *Lighting should not buzz, hum, or flicker.*
- *Giving residents control over task lighting, such as a reading lamp, enhances their sense of independence and autonomy.*

7. **Plants**

- *Are decorative and beneficial to guests and staff.*
- *Research shows that settings that include vegetation reduce stress, promote peace, tranquility, enhanced self-esteem, and a sense of mastery of the environment.*
- *Plants perform an important biophilic function by connecting occupants to the natural world, which has been found to reduce stress and pain, and to improve mood.*

- *Views of nature and landscape paintings, as well as indoor plants, are all associated with increased positive affect and comfort.*

8. **Art**

- *Adds visual interest*
- *Can create a visual distraction that alleviates stress, improves mood, comfort, and customer satisfaction.*
- *Landscape paintings are all associated with increased positive affect and comfort, and doubles as a natural view.*
- *Attention should be paid so that the art does not convey meaning or symbolic significance that would generate or arouse negative feelings.*

Tenets of Trauma-informed Care

Tenets of trauma-informed care have evolved from a greater realization and understanding that trauma in the lives of persons experiencing homelessness may have resulted from incidents experienced in childhood or throughout the lifespan, events leading up to homelessness, and experiences while homeless. Also, there is greater recognition that homelessness in itself is a traumatic experience and that persons experiencing homelessness are living in a constant state of survival.

Staff who provide assistance in shelter systems of care have become increasingly aware of the past and present trauma that is affecting the ability of persons experiencing homelessness to achieve a permanent housing outcome and well-being. However, they may not have all the training and expertise in order to offer the level of trauma-informed care to help homeless persons achieve a permanent housing outcome and well-being.

SAMHSA has developed a framework for understanding trauma and developing a trauma-informed approach for behavioral health specialty sectors that can be adopted to help increase trauma-informed care shelters. The framework integrates three significant threads of work, which are "trauma focused research work; practice-generated knowledge about trauma interventions; and the lessons articulated by survivors of traumatic experiences who have had involvement in multiple service sectors."

SAMSHA's work generated the following definition of trauma:

Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being.

SAMHSA's concept of a trauma-informed approach is grounded in a set of four assumptions and six key principles.

Four assumptions

The four assumptions have helped a propelled a growing number of organizations and service systems to explore ways to make their services more responsive to people who have experienced trauma. A program, organization, or system that is trauma-informed:

1. Realizes the widespread impact of trauma and understands potential paths for recovery;
2. Recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
3. Responds by fully integrating knowledge about trauma into policies, procedures, and practices; and
4. Seeks to actively resist re-traumatization.

The four assumptions are described in SAMHSA's report on pages 9 and 10.

Six Key Principles

SAMSHA noted that

A trauma-informed approach reflects adherence to six key principles rather than a prescribed set of practices or procedures. These principles may be generalizable across multiple types of settings, although terminology and application may be setting- or sector-specific.

The six key principles are listed below and described in SAMHSA's report on page 11.

1. Safety;
2. Trustworthiness and Transparency;
3. Peer Support;
4. Collaboration and Mutuality;
5. Empowerment, Voice, and Choice; and
6. Cultural, Historical, and Gender Issues.

SAMHSA's concept of a trauma-informed approach is also grounded in "change at multiples levels of an organization and systematic alignment with the six key principles described above.

The guidance provided for change at multiple levels of an organization was provided within 10 Implementation Domains that are listed below and described in SAMHSA's report on pages 12 – 14.

1. Governance and Leadership;
2. Policy;
3. Physical Environment;
4. Engagement and Involvement;
5. Cross-Sector Collaboration;
6. Screening, Assessment, Treatment Services;
7. Training and Workforce Development;

8. Progress Monitoring and Quality Assurance;
9. Financing; and
10. Evaluation.

Conclusion

It is time to realize that 1) many homeless persons are not willing to live in large open spaces for long periods of time with many people they do not know and some that they may know but do not trust and a few that they fear; 2) for a significant number of homeless persons, living on the streets in survival mode is the preferred choice over living in a shelter that is not trauma-informed; and 3) the physical and social environment of homeless shelters can contribute to traumatizing and re-traumatizing experiences to shelter residents.

Trauma-informed shelters can eliminate many of the reasons why persons living homeless on the streets refuse to live in a shelter. The reasons stem from traumatizing experiences and concern of being re-traumatized. Traumatizing experiences for persons living homeless are the result of physical and emotional abuse that can create or further mental health issues, such as depression, anxiety, and substance abuse problems. Their injuring experiences are often compounded by chronic health illnesses such as arthritis, asthma, cancer, chronic obstructive pulmonary disease and diabetes, and permanent physical disabilities.

Homelessness is in itself a traumatic experience. In fact, many persons experiencing homelessness are likely suffering the effects of cumulative traumatic experiences lived in childhood or throughout the life span, which also includes events precipitating or leading up to homelessness. The cumulative effect of traumatic experiences has left many a person languishing and coping with life on the streets and in a constant state of survival.

Merely creating conventional shelters will minimally reduce the number of homeless persons who are languishing on the streets.

Substance Abuse and Mental Health Services Administration (SAMHSA); Trauma-informed Care in Behavioral Health Services.

SAMHSA's Trauma and Justice Strategic Initiative; SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach.

Designing for Healing Dignity & Joy

Promoting Physical Health, Mental Health, and Well-Being Through Trauma-Informed Design

Shopworks Architecture

Group 14 Engineering

University of Denver
Center for Housing and
Homelessness Research

Acknowledgments

Thank you to our community partners, particularly the residents who shared their time and insights and opened their homes to us: Housing Catalyst and Redtail Ponds; The Delores Project and Arroyo Village; and the St. Francis Center and St. Francis Apartments at Cathedral Square. We also thank our funders—Energy Outreach Colorado, Gary Community Investments, and the members of the Housing and Homelessness Funders Collaborative—whose generosity made this research possible. We extend our gratitude to the people and organizations who have contributed to our understanding of trauma-informed design, including Florida State University Professor Jill Pable, founder of Design Resources for Homelessness; Raul Almazar, a senior consultant at the SAMHSA National Center for Trauma-Informed Care; Enterprise Community Partners and Cultural Resilience Program Director Meghan Venable-Thomas; the Corporation for Supportive Housing; the National Equity Fund; Colorado Health Foundation; Housing Now Colorado; and the Mental Health Center of Denver.

Designing for Healing, Dignity, & Joy

Promoting Physical Health, Mental Health, and Well-Being Through a Trauma-Informed Approach to Design

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It's Time for a Trauma-Informed Approach to Design

When we started designing The Delores Project shelter and The Delores Apartments at Arroyo Village, we attended a training on the importance of trauma-informed care in engaging shelter guests. We learned that most adults have experienced childhood trauma, that many residents of the buildings we design have experienced substantial trauma throughout their lifetimes, and that trauma can have lifelong physical and mental health consequences and multi-generational effects—changing the brain and how we view and respond to the world around us.

We also learned that the negative effects of trauma can be mitigated. For us, this understanding sparked a revelation: ***We have a responsibility to not just design housing, but housing that promotes healing and well-being.***

As we've expanded our work building housing for vulnerable populations, we have sought to better understand how traumatic experiences shape residents' needs and to apply a trauma-informed lens to design from the get-go. Here we share some of what we've learned and propose a preliminary framework for trauma-informed design practice and process.

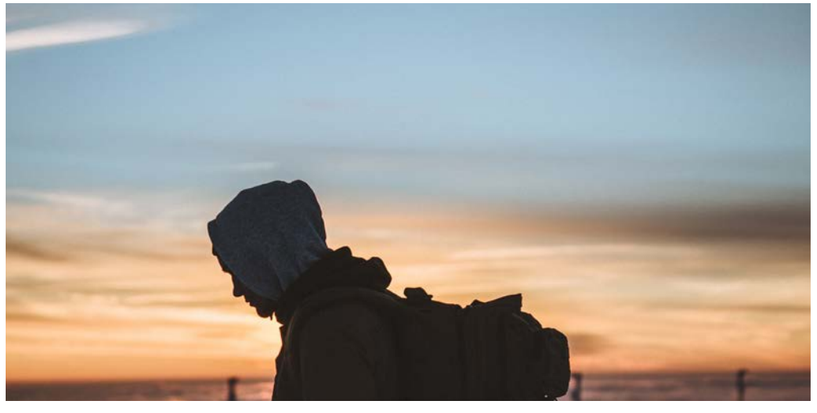
Our aim is to create greater awareness of and interest in the potential for our work—as architects, designers, engineers, developers, nonprofits, and others creating housing—to not just shelter people but to also promote healing, dignity, and joy through a built environment in which all people can thrive. ***We invite you to join us in this work.***

Trauma is a leading health concern in the U.S., where 61% of adults have had at least one adverse childhood experience (ACE)—a potentially traumatic event that occurs during childhood (Centers for Disease Control and Prevention [CDC], 2019). ACEs include abuse and neglect, growing up in a family with substance use or mental health problems, economic hardship, or parental divorce or separation, among others (Felitti et al., 1998), and the more ACEs one has, the greater the potential effect on health and well-being.

Although experiences with and responses to trauma are highly variable and aren't necessarily harmful (Center for Substance Abuse Treatment, 2014), ***traumatic stress can be toxic, altering brain development and affecting a variety of physiological systems.***

For example, trauma can make the brain less responsive to rewards, which can, in turn, increase risk of addiction and obesity (Biological Psychiatry, 2015; USC Suzanne Dworak-Peck School of Social Work, 2017). Trauma can also trigger flight, fight, or freeze responses that can become a recurring pattern (Kozlowska et al., 2015) lasting years or even decades and affecting memory, concentration, and other physical, emotional, and cognitive processes (Mayo Clinic, n.d.). Thus, trauma is linked to a host of adverse outcomes, including chronic health problems such as asthma and diabetes in adulthood (CDC, 2019). Additionally, 5 of the top 10 leading causes of death in the U.S. are linked to childhood trauma (CDC, 2019).

Trauma is a nearly universal experience of people with mental health and substance use disorders, those who have experienced violence (SAMHSA, 2014), those living in poverty (Collins et al., 2010), and those who have experienced homelessness (Hopper et al., 2010)—the very people likely to be served by shelters, supportive housing, and affordable housing.



5 of the top 10 leading causes of death in the U.S. are linked to childhood trauma.

Maslow's Hierarchy of Needs

Because of its prevalence and the significance of related physical and mental health outcomes, trauma is a critical consideration for design of all housing types—and for shelters and supportive housing in particular. But addressing trauma isn't just the responsibility of individuals and the services that walk beside them. An effective response demands participation from the broader community and public (SAMHSA, 2014), including architects, designers, engineers, developers, and all others involved in building housing.

As damaging as trauma can be, healing and recovery are possible. But for healing to happen, the housing we build can't simply prioritize physiological or safety needs (Maslow, 1943). With a holistic, user-centered, trauma-informed approach to design—one that attends to higher-order needs such as love and belonging, esteem, and self-actualization (Maslow, 1943)—we can not only prevent and mitigate further harm but actually promote healing.

Learn More:
Watch pediatrician Nadine Burke Harris's TED Talk on
"How Childhood Trauma Affects Health Across a Lifetime"
Scan code or go to www.ted.com/speakers/nadine_burke_harris_1

Early Examples of Trauma-Informed Design

A small number of architects, designers, and trauma experts have already embarked on this work, and early examples are promising. In Colorado, for instance, the Mental Health Center of Denver's Sanderson Apartments (designed by Davis Partnership Architects) was among the nation's first trauma-informed supportive housing communities. Opened in 2017, Sanderson provides 60 apartments for individuals and couples who have experienced chronic homelessness. According to JoAnn Toney, the center's director of residential services, "We know in our residential programs that if we practice good trauma-informed care … there is better engagement, people stay longer, and there are better outcomes" (Enos, 2017).

Sanderson has been followed by several similarly trauma-informed supportive housing developments in Colorado, including the Delores Apartments at Arroyo Village and St. Francis Apartments at Cathedral Square. Our own exploratory research (see pg. 14) on the experiences of residents at some of these developments has shown that trauma-informed design has supported residents' physical and mental health and well-being.

These outcomes matter. The U.S. currently spends more than $4 billion on homelessness (Council of Economic Advisors, 2019) and more than $100 billion on trauma-related health conditions each year (CDC, 2019). We believe that trauma-informed design of housing—from shelters to market-rate apartments—holds promise for reducing trauma-related costs and interrupting the intergenerational transmission of trauma and its adverse outcomes.

As an industry whose work directly or indirectly impacts virtually everyone in the U.S., we have an onus to act—to ensure that we're creating buildings and communities that contribute to prevention and healing and prioritize the physical and mental health and well-being of residents and the larger community.

Warm wood tones and joy-inspiring colors were used in the lobby and amenity areas at the Sanderson Apartments. (Photos courtesy of Davis Partnership Architects and Mental Health Center of Denver)

Establishing a Trauma-Informed Design Framework

Although there is no broad consensus on what trauma-informed design is and relatively little evidence to indicate how it should be implemented in process and practice, most conceptualizations are based on trauma-informed care guidelines developed by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014). Jill Pable, founder of Design Resources for Homelessness, has suggested a definition of trauma-informed design that adapts Hopper and colleagues' definition of trauma-informed care:

> Trauma-informed design encompasses adaptations in the designed built environment that support "a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment." (Hopper et al., 2010, p. 133; J. Pable, personal communication, October 7, 2019)

At the broadest level, trauma-informed design aims to promote healing and improved physical health, mental health, and overall well-being of individuals and their communities.

Learn More:
Design Resources for Homelessness provides a list of architectural ideas to support specific health, mental health, and well-being outcomes, as well as case studies from completed projects.
Scan code or go to www.designresourcesforhomelessness.org

Core Values

Informed by Pable's "six human qualities that most people desire for physical and mental health in the places they inhabit" (Design Resources for Homelessness, n.d., p.1) as well as our work with residents and practitioners in affordable housing, we have arrived at a set of core values that must be prioritized during the design process by all members of the housing team.

Hope, Dignity, and Self-Esteem
We celebrate each individual's inherent worth, communicating positivity, emphasizing strengths, and maximizing potential.

Connection and Community
We create spaces that encourage camaraderie and collaboration—among residents as well as between residents and staff—and offer the opportunity to belong, helping residents to rebuild relationships built on trust.

Joy, Beauty, and Meaning
We honor culture and identity while creating spaces that spark and nurture imagination, hope, and aspiration.

Peace of Mind
We cultivate a comfortable, calm ambiance that supports relaxation, self-soothing, stress management, and coping through design details such as lighting, sound mitigation, natural elements, and access to nature.

Empowerment and Personal Control
We encourage individual agency, welcome self-expression, and offer choices for residents.

Safety, Security, and Privacy
We understand that residents' perceived safety is just as important as actual safety. We prioritize clear wayfinding, sight lines, and boundaries; minimize negative triggers; offer vantages of both prospect and refuge and paths of retreat; and recognize the role of program staff in creating a sense of safety and security.

The 3 C's of Designing for Health and Healing

From the core values that guide our trauma-informed design approach, we've operationalized three key concepts of trauma-informed design—the "3 C's"—to extend our work to the higher-level needs on Maslow's hierarchy and shift from providing housing to promoting healing:

1 **Choice**
Emphasizes individual access, agency, and ownership; describes elements of personalization (e.g., color selection or furniture arrangement) and level of resident engagement with the space (e.g., choosing between relaxing in a community space or in one's own apartment)

2 **Community**
Responds to the ways that residents may engage—with staff, other residents, and guests—through placement and design of programmatic spaces, office spaces, and public gathering spaces that facilitate relationship-building

3 **Comfort**
Includes aspects such as the quality and variety of materials; sensory experiences of light, sound, and smell; and elements such as nature and artwork that bring calm or spark joy

Together, these core values and key concepts frame the intent of the trauma-informed design process and influence design decision-making across all building systems and features—from natural elements and access to nature, to safety and security, to circulation and wayfinding, to light and color, to flexibility and scale.

Our Exploratory Study of Trauma-Informed Design

To better understand how residents experience buildings designed with a trauma-informed approach, in summer 2019, Shopworks Architecture, Group14 Engineering, and the University of Denver Center for Housing and Homelessness Research began gathering exploratory data from staff and residents of three recently completed affordable housing communities in Colorado: Housing Catalyst's Redtail Ponds (Fort Collins supportive housing designed by Studio Completiva), the St. Francis Center's St. Francis Apartments at Cathedral Square (Denver supportive housing designed by Humphries Poli Architects), and The Delores Project and Delores Apartments at Arroyo Village (Denver shelter and supportive housing designed by Shopworks Architecture).

We gathered data from observational tours, resident and staff focus groups, and resident surveys. Resident demographic characteristics varied, but most residents reported having experienced homelessness. A majority of residents said they preferred to relax and socialize in their own apartments and felt safest there. Noise was a common concern at two sites, and residents in all three buildings expressed a desire for more control over lighting—including natural and artificial light—in common areas and apartments.

Notably, we learned that residents preferred public spaces that were in proximity to staff and that amenity spaces without a staff presence were underused. Staff are critical to creating a sense of community—facilitating relationship- and trust-building among residents. This finding has important implications for both building and program design.

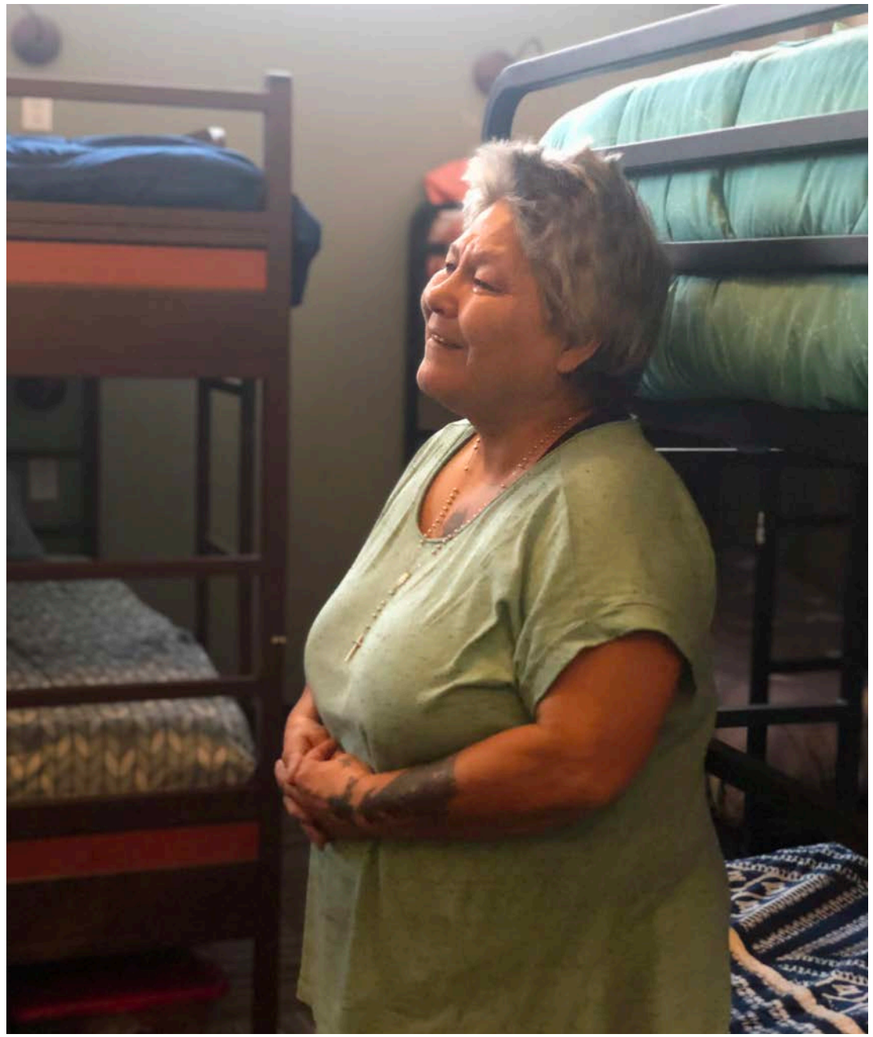
Across all three communities, most respondents said they felt safe, they had a personal connection to other residents, and that they felt healthier than before they moved in—primary aims of trauma-informed design.

Because the three buildings studied vary in design and programming features, much of the resident feedback was related to specific features. We're using study findings to inform our work on other housing developments and shape our feedback on national building standards.

Key Takeaway: Amenity areas for residents need to feel safe to residents. Locate amenity areas close to staff offices to help build connections among residents and between residents and staff.

"It's been six months, and I really have gotten used to my home. I'm able to relax here in a way I haven't relaxed in a while … This is home. This is my home. I couldn't have gotten a better view; I couldn't have gotten a better apartment. It's my world."

Sandi Barros, Resident of the Delores Apartments at Arroyo Village



Biophilia describes the human need to interact with nature, and that interaction provides a range of physical and mental health benefits, including reduced stress, better sleep, lower blood pressure, and improved immune function. The central courtyard provides outdoor space for gathering and gardening at **Arroyo Village**, a homeless shelter, supportive housing, and affordable housing apartment building designed by Shopworks Architecture in Denver, Colorado.

Flexible, light-filled interior spaces surrounding the courtyard invite the outdoors in and offer residents both prospect and refuge. Color and artwork create a welcoming, joyful atmosphere infused with culture, meaning, and memory through incorporation of quilts (a Delores Project tradition) and quilt-inspired design elements.

Photos by Matthew Staver (top, bottom) and Ben Eyster (left, middle)

At the **Karis Apartments**—supportive housing for youth experiencing homelessness in Grand Junction, Colorado, designed by Shopworks Architecture—a soaring atrium reflects residents' possibilities and potential, infusing the space with a sense of awe and aspiration. Wood and other natural elements ground and warm the space. Rather than reinforcing us–them power dynamics with a traditional reception desk, Karis features a café-style lobby where residents can interact casually and authentically with staff at the heart of the building or tuck into a cozy alcove. The main stairway opens into the lobby, corridors are short and wide with clear sight lines for resident safety, and each department has an easy connection with the central space so youth always feel close to people who care.

Renderings by Shopworks Architecture (left, top) and Flow Design Collaborative (bottom)

Because our research has shown that laundry spaces and trash collection areas can be triggering for people who have experienced homelessness, and because residents fear that their clothes may be stolen if left unattended, **The Elisabetta** rethinks the typical "afterthought" laundry space. We prioritized laundry, creating a beautiful, spa-like space that fosters community as residents gather to talk, listen, and laugh—or just relax—as they do laundry. Operated by Laradon, this mixed-use project designed by Shopworks Architecture in Denver, Colorado, includes low-income housing, apartments for residents with disabilities, and a day program for people with intellectual and developmental disabilities. Larger family units face a central courtyard where kids can play safely, and each floor of the building offers a different experience: fitness, library, or lounge.

Photos by Matthew Staver

We Must Retool The Design Process

Practical considerations such as budgetary constraints, zoning requirements, and building best practices typically drive the housing design process.

Although these factors remain relevant, a trauma-informed approach to design elevates other contextual considerations—particularly the resident experience—to create a holistic framework for prioritizing design decisions, especially at the outset.

As we've observed, a trauma-informed approach to housing design can improve the design decision-making process—and ultimately resident outcomes—without increasing the cost or complexity of a building.

Understanding & Establishing Context

From day-one of the trauma-informed design process, we must consider the context of future residents (particularly their experiences with trauma), the programs and systems they interact with, the community in which they reside, and the environment in which they're located..

Cultural Context
Culture forces are complex, dynamic, provide identity and tie communities to their environment.

Environmental Context
Environmental forces not only include the climate and land on which the community resides, but also includes: historical contexts, economic contexts, and the systems / institutions they interact with.

Lived Experiences
A multi-layered, series of opportunities and obstacles that shape both individual and community perceptions of the world around them.

Tips for Success

- Gather feedback from stakeholders throughout the process.
- Seek the help of professional facilitators to navigate power dynamics and program evaluators to help organizations understand and anticipate needs.
- Enlist help from the research community to incorporate evaluation of short- and long-term indicators of individual and community physical and mental health and well-being.
- Seek to understand what worked and what didn't from a trauma-informed perspective; apply that knowledge to future work and share it within your field / industry.

The housing team must take into account the unique community a specific building is designed to support, and the neighborhood and culture it will be a part of. It is critical to listen to those with lived experience, potential residents, and community members to hear what will be healing for them. Follow their vision and hopes to ensure the built design truly helps individuals move toward health and resilience.

It is critical in trauma informed design that those with lived experience are interviewed and brought into the design conversation from day one. We have found it helpful to host a conversation at a local service provider and ask a variety of questions to ensure we are not making assumptions about individual's lived experience, what they connect to in their community, and what support has helped them heal to ensure those same supports are possible in the building you design.

Questions for the housing team to consider:

- What are the lived experiences of the population, both staff and residents, that the building will serve?
- How do we design for the real and perceived safety of all residents, considering their past experiences with trauma?
- What assumptions, stereotypes, and biases influence your understanding of the target population and the community (internal and external)?
- What are the identities, culture, traditions, and history of the target population, the community, and the land on which they reside?
- What systems and institutions intersect with and influence the housing development, either directly or indirectly? Are there amenities nearby?

Questions to ask potential residents:

- What makes this neighborhood/community unique?
- What do you love about this city/community/neighborhood?
- What has helped you heal?
- When you think about your first day in a new apartment, what does that look like?

Because there is no singular "trauma experience," we must revisit these questions and the building context for each and every housing development and do so in collaboration with the target population and larger community throughout a building's planning, design, and construction. Even among a specific population (e.g. veterans experiencing homelessness) the neighborhood and community they are a part of will impact how they experience certain spaces.

Trauma-Informed Design Framework

Core Values

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Empowerment and Personal Control
We encourage individual agency, welcome self-expression, and offer choices for residents.

3 C's / Key Concepts

With each design decision, the housing team should ask:

- Is this giving the residents and staff **choice?**
- Is this helping to create **community** among residents, and between residents and staff?
- Are we creating **comfort** for residents—does this bring calm or spark joy?

Context

Throughout the design process, the housing team should seek to understand the **cultural and environmental context** through direct conversations with those with **lived experiences** of homelessness and trauma.

Trauma-Informed Design Process

The traditional design methodology is a natural fit for a trauma-informed process that purposefully and thoughtfully engages the target population, community, and intersecting systems and organizations early.

Goal-Setting & Agreement
A trauma-informed design process must be trauma-informed at the outset: Physical and mental health and well-being outcomes must be a shared priority. Agreeing on goals and developing a project mission statement can be a great place to start (Enterprise Community, n.d.).

Research & Discovery
A trauma-informed process seeks to understand and anticipate program needs as well as the lived experience, identities, culture, traditions, and history of the target population and community. Get feedback from future residents, and identify and interrogate the assumptions, stereotypes, and biases of stakeholders.

Collaboration
Invite the target population and the broader community into the project, creating and facilitating meaningful opportunities for collaboration and engagement that can help you deliver on your mission and goals. Think about how you might weigh competing priorities or needs, such as those suggested by staff and those suggested by residents: Are marginalized voices truly being heard in the process?

Evaluation
Weigh features and costs against trauma-informed decision-making criteria and desired outcomes. Competing priorities can be expected, but evaluate all decisions through a trauma-informed lens: For instance, how do materials, the placement of windows and doors, the type and location of amenities, and the scale of rooms and buildings impact experiences of light, sound, smell, and human interaction inside and outside the space?

Shifting the Focus From Housing to Healing

By prioritizing the physical and mental health and well-being of residents and the larger community, our work has the potential to interrupt cycles of poverty and trauma, ultimately improving the lives of individuals, strengthening communities, and reducing costs. But how do we get there from here?

We've proposed a starting place, but more work is needed to develop an effective, evidence-based, trauma-informed approach to design practice and process. To move ahead, we need:

- **Ongoing empirical research** into the short- and long-term outcomes of trauma-informed design across a range of domains (e.g., physical health, mental health, socioeconomic status)
- **Further exploration, testing, and refinement** of the preliminary trauma-informed design framework and development of trauma-informed design process and practice guidelines
- **Deeper insights into funding and policy implications** and development of incentives and funding mechanisms for housing that implements trauma-informed design

These answers won't come quickly, but our work building housing can't wait. Given the individual and collective toll of trauma, the public resources already allocated to housing, and the even greater unmet need, we feel an urgency to act, evolving and refining the trauma-informed design approach as we go along.

Most immediately, our industry must begin developing a formal set of best-practice guidelines in trauma-informed design. We need to introduce education about trauma into college and university curricula and develop continuing-education opportunities in trauma-informed design. And we must broadly share what we know—including developing case studies of what has worked, what hasn't, and why.

A larger challenge is prioritizing the trauma-informed approach and ensuring that as we strive to meet the vast need for housing, we don't miss the opportunity to do more than simply provide square footage.

We must be particularly thoughtful about space, creating wider hallways but smaller apartments, for example, or offering more flexible shared spaces instead of apartment balconies. Ultimately, we believe prioritizing trauma-informed design decisions will result in better resident outcomes and lower associated costs in areas such as health care utilization or criminal justice involvement.

Shifting our focus from housing people to healing people—and ultimately to promoting dignity and joy through a built environment in which all people can thrive—will be required at all levels, from service providers to policymakers.

As designers of the built environment and stewards of the precious public resources allocated to do so, we must elevate our thinking and center human experience in our own work.

"Man, I have gone from bed bugs to honey bees!"

Patrick, Resident Sage of Providence at the Heights

Keep the Conversation Going

Addressing trauma is not just the responsibility of individuals and the services that walk beside them. An effective response to trauma demands participation from the broader community and public, including all those involved in building housing. Learn more about trauma-informed design and share this paper with your colleagues, clients, and professional organizations.
www.shopworksarc.com/tid

Additional Resources

The Enterprise 2020 Green Communities Criteria for integrative and healing-centered design provide excellent guidance for implementing for a trauma-informed design process. **www.greencommunitiesonline.org**

The WELL Building Standard (v2) provides detailed guidance on both process and features that support health, mental health, and well-being outcomes.
v2.wellcertified.com

Design Resources for Homelessness provides a list of architectural ideas to support specific health, mental health, and well-being outcomes, as well as case studies from completed projects. **designresourcesforhomelessness.org**

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socialwork.du.edu/chhr

The goal of trauma-informed design is not to just shelter people, but to also promote healing, dignity, and joy through a built environment in which all people can thrive.

We invite you to join us in this work.

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BMC Public Health

RESEARCH ARTICLE Open Access

Recognizing and responding to women experiencing homelessness with gendered and trauma-informed care

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Abstract

Background: The purpose of this study is to highlight the experiences of women who are often hidden in what we know and understand about homelessness, and to make policy and practice recommendations for women-centred services including adaptations to current housing interventions.

Methods: Three hundred survey interviews were conducted with people experiencing homelessness in Calgary, Alberta, Canada. The survey instrument measured socio-demographics, adverse childhood experiences, mental and physical health, and perceived accessibility to resources. Eighty-one women participants were identified as a subsample to be examined in greater depth. Descriptive statistics and logistic regressions were calculated to provide insight into women respondents' characteristics and experiences of homelessness and how they differed from men's experiences.

Results: Women's experiences of homelessness are different from their male counterparts. Women have greater mental health concerns, higher rates of diagnosed mental health issues, suicidal thoughts and attempts, and adverse childhood trauma. The results should not be considered in isolation, as the literature suggests, because they are highly interconnected.

Conclusion: In order to ensure that women who are less visible in their experiences of homelessness are able to access appropriate services, it is important that service provision is both gender specific and trauma-informed. Current Housing First interventions should be adapted to ensure women's safety is protected and their unique needs are addressed.

Keywords: Women, Mental health, Addiction, Trauma-informed care, Homelessness

Background

While women made up 27% of the Canadian homeless population in 2016, 89% of families in shelters were found to be headed by women [1]. Homeless women are considered "one of the most vulnerable subpopulations among the homeless," [2] which is attributable to many interrelated factors such as a shortage of women-centred services [3], women's vulnerability to violence, exploitation and marginalization [4], and higher rates of poverty [5] often lacking the necessary resources when escaping violence. Evidence suggests that women are largely underrepresented in homeless counts as they are less visible in their experiences of homelessness [6, 7], .Women often seek shelter in "non-service-led situations" such as sleeping rough, couch surfing or staying in unsafe housing [8]. It has been suggested that women experience both "spatial and policy invisibility," [9] and as a result are less likely to be effectively served by conventional health and social services. One study identified that "women as a homeless population have conventionally been left out of societal discourse, public policy, and research agendas, thereby affecting funding priorities and the development of service delivery models." [7] Evidence also shows that without appropriate interventions, women have a high likelihood for multiple episodes of homelessness [10].

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Housing First is an intervention that provides affordable housing and case management services and has been identified as a 'best practice' intervention that can sustainably end homelessness for people with complex physical and mental health issues. However, in a Canada wide research study to determine its effectiveness, "the 'typical' participant was a male in his early 40's…" [11]. This research team concluded that further research is needed to determine how to adapt the model for particular sub-groups including women.

Much of the homelessness literature indicates that homelessness for women is unique from men's experiences as women's experiences are governed by oppression, gender inequality, and stigma [7, 12]. For instance, women are particularly vulnerable to victimization and are at higher risk for physical and sexual violence while living on the streets or in shelters [9, 13, 14]. Furthermore, intimate partner violence is a common path into homelessness for women [7, 12] as a lack of affordable housing in Canada and limited financial and social resources often require women to choose between staying with their abusive partner and falling into homelessness [15]. Adverse childhood experiences have been associated with concurrent mental health concerns and substance use disorders [16], frequent health care use in adulthood [17], and poor physical and mental health outcomes [18]. Physical and sexual abuse during childhood has been found to be particularly prevalent amongst women experiencing homelessness [19–21] and women disproportionately require hospital care, particularly with regards to recent violence and mental health concerns [2, 22].

Women experiencing homelessness have also been found to report high rates of gender-specific health concerns related to gynaecological health, pregnancy, feminine hygiene, and sexually transmitted infections [23, 24]. Women living on the streets are particularly vulnerable as women sleeping rough, have been found to have higher rates of poor physical and mental health issues and higher reported rates of substance use than women living in shelters [25, 26].

Women experiencing homelessness face many barriers to accessing appropriate health care services, such as long wait times, lengthy travel time, and lack of transportation [27, 28]. It has also been identified that for some women, addiction "may be overshadowing other pressing health concerns." [29] The physical, mental, and sexual health concerns of women experiencing homelessness are complex, thus indicating that it is critical to facilitate access to appropriate and safe interventions.

In order to ensure that women can easily obtain primary, preventative, and specialized health care, access to appropriate services must be facilitated through establishing gender-sensitive and trauma-informed care [29]. However, there is little pre-existing research examining the perceived need for health care services amongst women experiencing homelessness nor is there much that has focused on adverse childhood experiences and their impact on women's long-term health and social outcomes.

It is prudent to recognize the history of victimization and exploitation of women and how their experiences of homelessness are different than men. The needs of women must be addressed through homeless reduction strategies as gendered homelessness for women is gendered [7]. Strategies to address homelessness must adopt a gendered and trauma informed perspective.

The purpose of this study is to better understand if women are more likely to experience suicide attempts and/or psychiatric stays than men and if these experiences are influenced by mental illness and/or childhood trauma. Applying a gendered lens to our analysis meant we carefully and deliberately examined the data and its implications considering the different needs and experiences of women as compared to men. The following analysis will help fill existing gaps, providing insight and recommendations into how services and practices can be improved to respond to the gender and trauma specific needs of women. We posit suggestions for enhancements to homelessness interventions including Housing First programs that are reflective of and responsive to the unique needs and vulnerabilities of women.

Methods

Survey interviews were conducted with 300 people experiencing homelessness in Calgary, Canada between January and March 2017. The interview guide used some of the questions from the *Perceived Need for Care Questionnaire* [30] with some additions and adaptions thought relevant by the research team. The fulsome version of the *Adverse Childhood Experiences survey* was also used [31]. Eligibility criteria required participants to have been homeless for at least 6 months or more than four times in the last 2 years. All participants provided informed consent prior to completing the survey and received a $25 (CAD) honorarium for their time. Research was conducted primarily at two emergency shelters in Calgary, and a small group ($n = 18$) of rough sleepers were also interviewed outside. Respondents were asked a series of 88 questions regarding their sociodemographics, adverse childhood experiences (the ACE survey), mental and physical health, and access to services.

The data were inputted electronically, checked for consistency and analysed using SPSS. For the purposes of our analysis, the 81 self-identified women participants comprise the subsample of respondents examined in greatest depth. When running comparative analyses, the 217 self-identified men respondents comprised the other subsample of respondents. Remaining respondents were excluded from the analysis, as the sample size was too

small to examine independently. SPSS was then used to examine respondents' demographics, adverse childhood experiences, substance use, and mental health status. Descriptive statistics and logistic regressions (adjusted and unadjusted) provide insight into women respondents' characteristics and experiences of homelessness and how they differed from men.

Measures

Respondents were asked to report the various places that they had slept in the past 6 months. Seven of the options provided to respondents were collapsed to create the hidden homeless score variable: sleeping in friends places, sleeping in family members' places, couch surfing, sleeping in jail/prison, in hospitals, in vehicles, or walking all night. Respondents' ACE scores were scores out of 10 and were based on whether or not respondents experienced the following experiences before the age of 18: verbal, physical, sexual, and emotional abuse, neglect, abandonment, witnessing a parent being abused, if a parent struggled with addiction, if a household member had a mental health issue or attempted suicide, and if a household member went to prison. The higher the number of adverse childhood experiences the participant had prior to the age of 18, the higher the ACE score.

Respondents identified the length of time and the number of times they had been homeless in their lives (once, twice, three times, four times, five times, or more than five times). These variables provide relative measures of patterns of homelessness. The same method was used to create variables for patterns of alcohol use, six or more drinks on one occasion, non-beverage alcohol consumption, drug use, polydrug use, and using both alcohol and drugs at the same time. Each of these variables were measured based on respondents' self-report of how often each occurred: these were scored using the following scale: never, monthly or less, weekly, and daily or almost daily, which were then used to provide relative measures of substance use frequency. Respondents were asked to identify if they had any diagnosed or undiagnosed mental health issues, suicidal thoughts and attempts, and whether or not they had been in a mental health facility.

The outcome variables were selected based upon evidence that suggest these variables may impact the relationships between gender and the outcome variables of interest. For instance, an individual's age and Indigenous identity shape their experiences and their help-seeking behaviour. The length of time experiencing homelessness may impact an individual's likelihood to attempt suicide and/or stay in a psychiatric hospital. Further, mental illness diagnoses and higher ACE scores may impact an individual's likelihood to require psychiatric attention or to attempt suicide.

This study received ethics approval from the University of Calgary Conjoint Health Research Ethics Board, REB17–2064.

Results

Women were found to be significantly more likely to have stayed in a psychiatric hospital. Women were significantly more likely to have reported having suicidal thoughts in their lifetime, having attempted suicide in their lifetime, and having been diagnosed with a mental health issue. Identifying as a woman was also associated with the number of reported mental health diagnoses.

When examining associations with substance use and addiction diagnoses, women's experiences with substance use were not significantly different than men's; however, examining their substance use patterns provides insight into the consequences of use for women. The largest proportion of women reported using drugs other than alcohol daily or almost daily (37%), while 18.5% use drugs monthly or less and 13.5% reported using drugs weekly. Of those who use drugs, 71.6% reported never using more than one drug at the same time, 54.3% reported never using alcohol and drugs at the same time, while 22.2% reported doing so monthly or less, 13.6% did so weekly, and 9.8% did so daily or almost daily. Besides alcohol and marijuana, the most commonly reported substances used were crack (34.6% of respondents), cocaine (22.2%), and methamphetamines (21%). The consequences of using were notable as 60.5% of respondents had legal difficulties as a result of drinking or drug use and 49.4% reported that their drug use had hurt themselves or others. Additionally, 22.2% of women felt that their longing for drugs was irresistible daily or almost daily and 17.3% had guilty feelings or a bad conscience for using drugs.

Women reported disproportionately high levels of adverse childhood experiences, including notably higher rates of verbal and sexual abuse in childhood than men. These results are supplemental to the analysis using respondents' ACE score in Table 1 that identified the statistically significant correlation between gender and the number of adverse childhood experiences.

Table 2 shows that suicide attempts in women's lifetime and psychiatric hospital stays emerge statistically significant when controlling for age, Indigenous identity, number of times that participants were homeless, and participants' ACE scores. Women were found to be 1.82 times more likely to have attempted suicide in their lifetime [$p = 0.04$] and twice as likely to report having a psychiatric hospital stay [$p = 0.03$] in model 2 of each respective regression. When factoring in mental illness diagnoses, gender is no longer statistically significant. This suggests that women are at greater risk of staying in a psychiatric hospital and experiencing a suicide attempt not

Table 1 Systems Usage and Health Status

	Women ($n = 81$)					Men ($n = 217$)				
	Frequency	Mean	Median	Std. Dev.	Range	Frequency	Mean	Median	Std. Dev.	Range
Systems usage										
Stay in psychiatric hospital[c, b]	25 (30.86%)					41 (18.89%)				
Substance use										
Alcohol consumption frequency[d]		1.58	1.00	1.11	3.00		1.68	2.00	1.11	3.00
6+ drinks on one occasion frequency[d]		1.16	1.00	1.15	3.00		1.35	1.00	1.17	3.00
Non-beverage alcohol use frequency[d]		0.31	0.00	0.92	4.00		0.25	0.00	0.72	4.00
Drug use frequency		1.57	2.00	1.27	3.00		1.49	1.00	1.23	3.00
More than one type of drug at the same time frequency[d]		0.54	0.00	1.00	3.00		0.53	0.00	0.94	3.00
Alcohol and drug use at the same time frequency[d]		0.79	0.00	1.02	3.00		0.83	0.00	1.02	3.00
Addiction										
Diagnosed addiction in last year[c]	26 (32.10%)					50 (23.04%)				
Diagnosed addiction previous to last year[c]	18 (22.22%)					56 (25.81%)				
Undiagnosed addiction in last year[c]	11 (13.58%)					40 (18.43%)				
Undiagnosed addiction previous to last year[c]	9 (11.11%)					27 (12.44%)				
Adverse childhood experiences										
ACE score[d, b]		5.02	5.00	2.72	10.00		4.19	4.00	2.97	10.00
Mental health										
Suicidal thoughts in last year[c]	29 (35.8%)					62 (28.57%)				
Suicide attempt in last year[c]	9 (11.11%)					12 (5.53%)				
Suicidal thoughts in lifetime[c, a]	60 (74.07%)					125 (57.60%)				
Suicide attempt in lifetime[c, a]	43 (53.09%)					73 (33.64%)				
Mental health diagnosis[c, a]	51 (62.96%)					80 (36.87%)				
# of diagnosed mental health issues[d, a]		1.85	1.00	1.99	8.00		0.76	0.00	1.29	7.00

Frequencies with percentages provided in parentheses
[a]Significant at the 0.01 level
[b]Significant at the 0.05 level
[c]Independent samples t-test
[d.] Pearson's Correlation Coefficient

Table 2 Logistic Regressions

	Suicide Attempt				Psychiatric Stay			
	Unadj.	Model 1	Model 2	Model 3	Unadj.	Model 1	Model 2	Model 3
Female	2.23[a] (1.33–3.75)	1.82[a] (1.04–3.16)	1.80[a] (1.02–3.18)	1.52 (0.85–2.73)	1.92[a] (1.07–3.43)	1.94[a] (1.05–3.56)	1.95[a] (1.05–3.63)	1.45 (0.75–2.79)
Age	0.95[a] (0.93–0.97)	0.96[a] (0.94–0.98)	0.97[a] (0.95–0.99)	0.98 (0.96–1.00)	0.98 (0.96–1.00)	0.98 (0.96–1.01)	0.99 (0.97–1.02)	1.01 (0.98–1.03)
Indigenous identity	2.06[a] (1.25–3.41)	1.34 (0.77–2.33)	0.96 (0.53–1.72)	1.06 (0.58–1.94)	0.68 (0.36–1.28)	0.50[a] (0.26–0.99)	0.37[a] (0.18–0.76)	0.42[a] (0.20–0.88)
Times homeless	1.22[a] (1.08–1.38)	1.16[a] (1.02–1.32)	1.12 (0.98–1.28)	1.10 (0.96–1.26)	1.05 (0.91–1.21)	1.06 (0.92–1.23)	1.02 (0.88–1.19)	0.98 (0.84–1.15)
ACE score	1.31[a] (1.20–1.43)		1.24[a] (1.12–1.37)	1.21[a] (1.09–1.34)	1.16[a] (1.05–1.28)		1.20[a] (1.07–1.34)	1.14[a] (1.01–1.28)
Mental illness diagnosis	4.12[a] (2.51–6.75)			2.59[a] (1.50–4.47)	6.46[a] (3.42–12.20)			5.64[a] (2.82–11.26)

Odds ratios with 95% confidence intervals provided in parentheses
[a]Significant at the 0.05 level

solely due to being female, but because of the likelihood that they will receive a mental illness diagnosis.

Discussion

Our results indicate that a greater proportion of women in our sample experienced suicidal ideation and suicide attempts, childhood trauma, and stays in psychiatric hospitals when compared to male respondents. However, women did not have significantly different rates of substance use from their male counterparts. The literature suggests mental health diagnoses are more prevalent in women than men and mental illness is a significant contributor to women's homelessness [32, 33]. This is mirrored in the results where mental illness diagnoses acted as a confounding variable, thus suggesting that women are more likely to have a mental illness diagnosis. Being a woman is not statistically significant with the inclusion of a mental illness diagnosis, likely due to the higher prevalence of mental illness among women in our sample (approximately double). In other words, being a woman is not a risk to the outcome, but is highly correlated with other risk factors. Women, therefore, are much more likely to exhibit these health risks than males, implying that front-line service delivery needs respond appropriately.

Given the significance of mental illness and gender, the impact of traumatic experiences need to be considered and factored into the way we support and work with women who are experiencing homelessness.

Experiences of homelessness are gendered and females must be considered independently from their male counterparts. While it is important to consider how women's experiences of mental illness shapes their experiences of homelessness, policy makers and service providers must also recognize the ways in which gender shapes an individual's experiences of suicide and psychiatric stays. Women's higher ACE scores are indicative of both the gendered vulnerability to violence and the prevalence of trauma that women experience in their childhood [19–21]. Ensuring that services are gendered challenges traditional approaches, including many Housing First programs that are gender-neutral. Gender-neutrality is the belief that men and women are the same and therefore should be treated the same [34]. A neutral approach leads to interventions without acknowledgment that there are unique vulnerabilities and experiences associated with gender [35]. This emphasizes the importance of adapting or enhancing Housing First programs to ensure women receive trauma-informed therapeutic supports. For example, organizations that primarily support women could receive funding to implement housing programs. Alternatively, partnerships between existing Housing First programs and women-centred organizations could be facilitated to ensure that staff can provide counselling and/or referrals to trauma-informed counselling services.

As our study demonstrates that women's experiences of trauma and homelessness are closely interconnected, collaboration must also be facilitated between the trauma/violence and homeless-serving sectors [15]. This would help ensure that Housing First interventions can address the safety needs of women who are vulnerable to previous abusers who may attempt continued exploitation once women are housed.

Conclusion

This research focuses on female homelessness in order to more closely examine gendered experiences of housing insecurity and plan for both responsive and protective interventions to meet their unique needs. Women's experiences of homelessness are largely influenced by high rates of adverse childhood experiences and mental health diagnoses. This research points to the need for holistic care that addresses the social determinants of health and provides gender-specific and trauma-informed care.

Intersectoral collaboration and funding specifically for women-centred programming is necessary to bridge gaps between public systems and ensure that interventions including Housing First programs are enhanced to protect women's safety and provide therapeutic supports to deal with trauma. Future research should focus on ways to engage women who are rough sleeping and/or are staying in unsafe or temporary housing to facilitate access to Housing First programs. Future research should also assess the effectiveness of gendered and trauma-informed Housing First programs in improving women's health and wellbeing.

Supplementary information

Supplementary information accompanies this paper at https://doi.org/10.1186/s12889-020-8353-1.

Additional file 1: the adapted *Perceived Need for Care Questionnaire*. This survey was created for a study in Edmonton, Alberta but was adapted to the local context of the research site and a copy was added to the supplementary files section.

Abbreviation

ACE: Adverse childhood experiences

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Authors' contributions

K. M. was the principal investigator and led all aspects of the research project and manuscript development. N. W. was a research assistant and helped lead data collection, analysis and writing of the manuscript. S. L. L. provided editorial support and writing of the manuscript. D. J. D. provided leadership in data analysis, interpretation of the results and writing of the manuscript. E. H. provided content expertise, review of data analysis, writing of the manuscript and was the original author on the survey tool. The authors read and approved the final manuscript.

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Availability of data and materials
Data may be available by contacting the corresponding author. However, any analysis of the data would need separate ethics approval from corresponding institution and partnership with the original research team.

Ethics approval and consent to participate
Ethics approval was obtained from the University of Calgary Conjoint Health Research Ethics Board REB17–2064. All participants provided signed consent to participate.

Consent for publication
Not applicable.

Competing interests
The authors declare that the have no competing interests.

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An Introduction to Trauma Informed Care

Creating Physically and Emotionally Safe Environments for Clients, Families and Staff

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Sue McWilliam, PhD, Evaluation and Research Leader for TIC

Trauma Informed Care Launch

February 3,4,5, 2016

IWK Health Centre

Welcome and Agenda

- Welcome! Thank you for attending!
- Introduction to Trauma Informed Care
- Creating Cultures of Trauma Informed Care
- Break
- Staff Support in Human Service Settings: An Essential Element of Trauma Informed Programs
- Moving Toward Becoming a Trauma Informed Organization
- Logo and Website Launch

Purpose of Today's Session

- To provide foundational information about Trauma Informed Care (TIC) and associated staff support as we start our 3-5 year journey toward becoming a trauma informed organization.

Objectives

- To introduce you to the key concepts and principles of trauma and trauma informed care.
- To discuss how to create a culture of trauma informed care.
- To discuss how organizations can support staff experiencing stress, burnout, and/or vicarious trauma.
- To describe specific ways in which organizational responses, professional responses and personal responses contribute to a psychologically safe and healthy workplace.
- To describe the IWK's process/plan toward becoming trauma informed.

Types of Stress

- **Positive stress**
- **Tolerable stress**
- **Toxic stress**

What is trauma?

- Definition

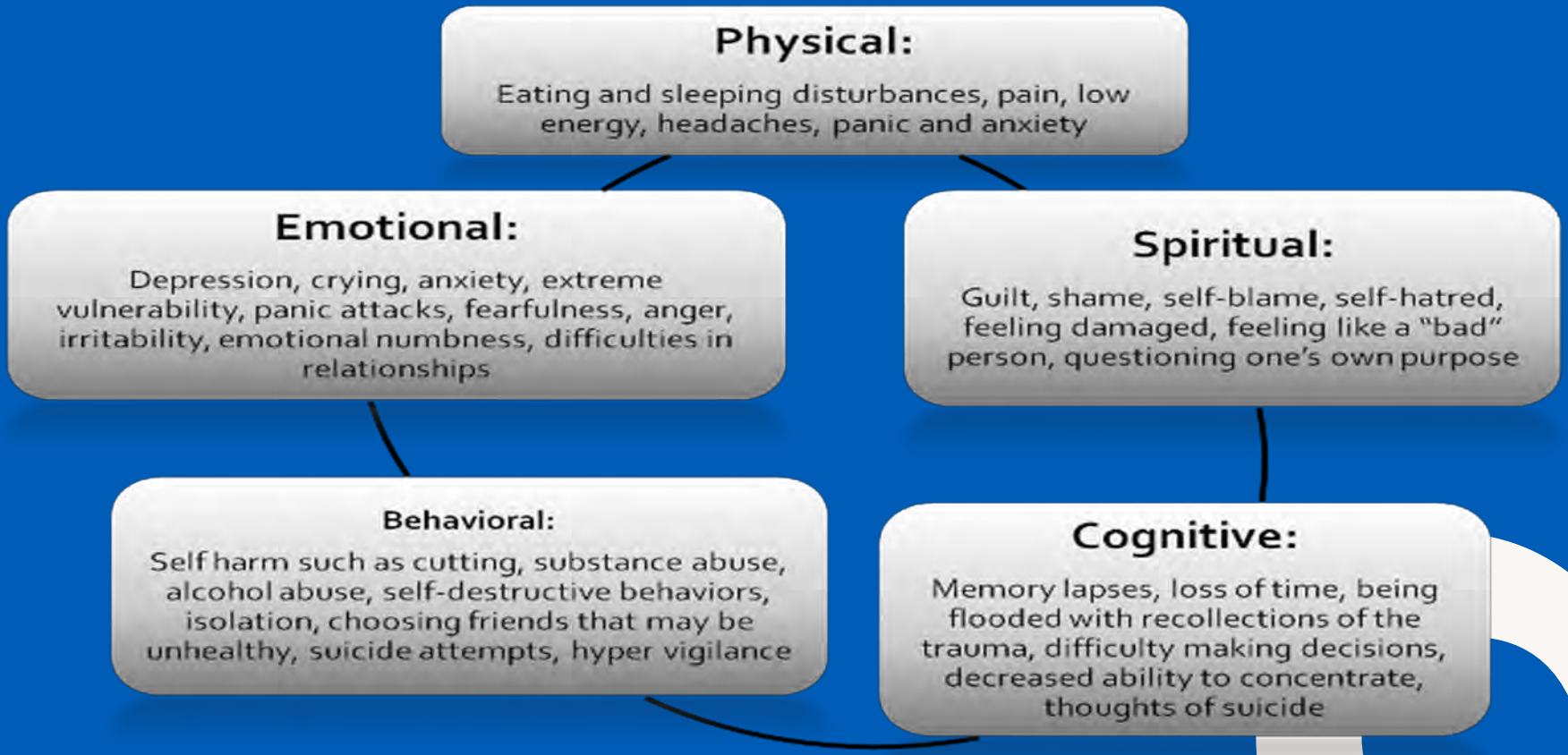
  Trauma can be anything that results from experiences that overwhelm an individual's capacity to cope. Trauma can result from abuse and neglect, family conflict, poverty, having a life-threatening illness, undergoing repeated and/or painful medical interventions, accidents, witnessing acts of violence, grief and loss, intergenerational events, etc.

  (Adapted from BC MHSU, 2013)

Some Different Types of Trauma

- **Acute trauma**
- **Repetitive trauma**
- **Complex trauma**
- **Complex Developmental trauma**
- **Vicarious trauma**
- **Cultural, historical and/or**
  Intergenerational trauma

Effects of Trauma



(Figure taken from N. Poole, Building a Trauma-Informed Practice Framework, 2014).

Resiliency and Recovery

"In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways."

Resilience Research Centre. Retrieved from: resilienceresearch.org (See also Ungar, 2008 and Ungar, 2011).

Resiliency and Recovery

https://www.youtube.com/watch?v=cqO7YoMsccU

Center on the Developing Child. Harvard University. Retrieved with permission from http://developingchild.harvard.edu/science/key-concepts/resilience/

How Common is Trauma?

- A large body of research estimates that between 55-90% of the population has experienced one or more forms of trauma in their lives (CDC & Kaiser Permanente, 1995-2011; Harris & Fallot, 2009; Farro et al., 2011).

- In a Canadian study, 76% of participants identified being exposed to at least 1 traumatic event in their lifetime (Van Ameringen et al., 2008)

- In a community-based mental health clinic in the US, researchers found that 90% of their 505 clients had been exposed to trauma (Cusack et al., 2004).

- As such, we need to presume the clients we serve and our staff members may have a history of traumatic stress and exercise “universal precautions” (Hodas, 2005)

Trauma Informed Care Definition

TIC is a strengths-based service delivery approach that is rooted in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and clients.

(Hopper, Bassuk, & Olivet, 2010)

TRAUMA INFORMED CARE (TIC)

DEFINITION

Being trauma informed is about creating safety and trustworthiness within health care practices, our physical/emotional environments and daily interactions with clients, families and staff.

PRINCIPLES

Awareness

Safety

Trustworthiness

Choice

Collaboration

Skills Building

Why We're Becoming Trauma Informed

Optimizing Patient Experience

- To be proactive, prevention focused and strengths based
- To create and sustain ingredients for Patient and Family Centered Care: choice, power and control
- To reduce the possibility of re-traumatization
- To reduce negative encounters and events (seclusion and restraint)
- To increase client and family satisfaction
- To reduce unnecessary costs and reduce the need for unnecessary interventions

Engaged Workforce

- To support engagement of the work force through support for self care
- To increase success/performance and job satisfaction
- To reduce sick time
- To reduce negative encounters and events which may lead to burn out and/or vicarious trauma.

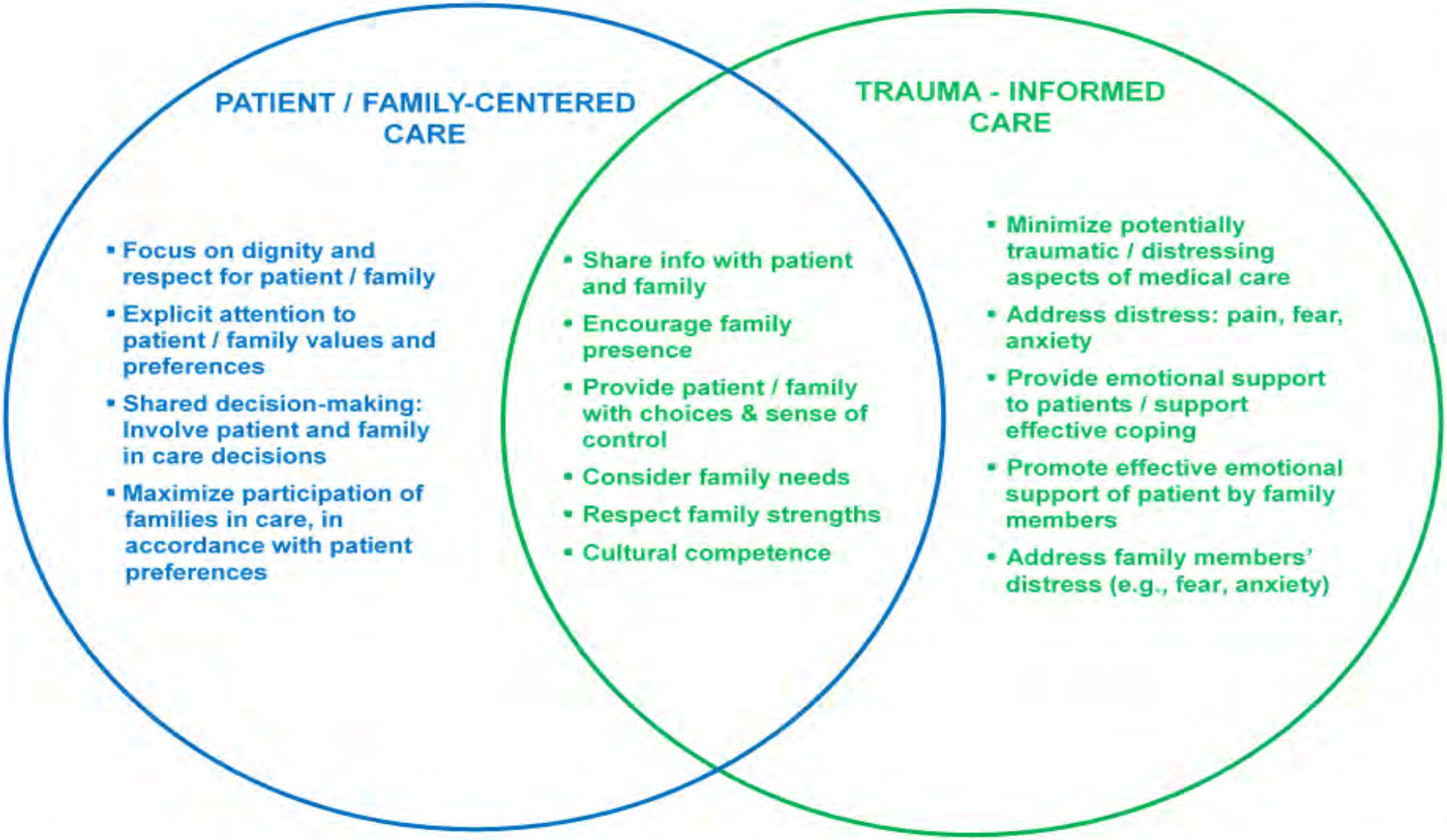
(Barton, Johnson & Price, 2009; Hodas, 2006; modified from National Council for Behavioral Health, 2013)

Evidence-Based Benefits

- Reduced trauma symptoms, drug use severity and mental health symptoms (Moses et al., 2003)
- Increased effectiveness of services – in engagement, retention, and outcomes (SAMHSA, 2011)
- Cost effective treatment (Community Connections, 2005)
- Decreased patient use of acute care and crisis services (SAMHSA, 2011)
- Increased organizational outcomes, such as: enhanced staff skills and morale; more collaboration within and outside their agencies; reduced vicarious trauma; fewer negative events
  (Hopper, Bassuk, Olivet, 2010)

(List adapted from: Trauma Matters Report, 2012)

Complimentary Approaches



www.healthcaretoolbox.org

Examples of TIC applicability

- Many medical interventions are traumatizing or re-traumatizing for clients and families.
- Recognizing the impact trauma, sexual abuse or domestic violence, can have as women experience prenatal care and child birth.
- Creating a safe and secure environment that supports disclosure of trauma.
- Recognizing the traumatic impact of seclusion and restraint.
- First contact staff
- Designing spaces that are trauma informed.

Community Connections

Creating Cultures of Trauma-Informed Care

Lori L. Beyer, LICSW

Community Connections

Community Connections

Community Connections

- Community mental health center in Washington DC
  - Serve 3000 adults, 800 children and adolescents
  - Substance addiction, homelessness, legal involvement, medical conditions
- Developed Trauma Recovery and Empowerment Model (TREM), published in 1998
- Trauma specific work led to our development of trauma informed initiative
- Consult to agencies/organizations/states all across US and in Canada

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

A Culture Shift: Scope of System Change

- Involves all aspects of program activities, setting, relationships, and atmosphere (more than implementing new services)
- Involves all groups: administrators, supervisors, direct service staff, support staff, and consumers (more than service providers)
- Involves making trauma-informed change into a new routine, a new way of thinking and acting (more than new information)

Community Connections

A Culture Shift: Changes in Understanding and Practice

- Thinking differently as a prelude to acting differently
- Thinking differently initiates and sustains changes in practice and setting
- Acting differently reinforces and clarifies changes in understanding

Community Connections

Changes in Understanding: Trauma-Informed Services

- Trauma-informed vs. trauma-specific
- Trauma-informed services:
  - Incorporate knowledge about trauma—prevalence, impact, and the diverse paths to recovery—in all aspects of service delivery and practice
  - Are hospitable and engaging for people who have experienced trauma
  - Minimize revictimization: “do no harm”
  - Facilitate healing, recovery, empowerment
  - Emphasize collaboration throughout the system

Community Connections

Changes in Understanding: Why Trauma-Informed Services?

- Trauma is pervasive
- Trauma's impact is broad and diverse
- Trauma's impact is deep and life-shaping
- Trauma, especially interpersonal violence, is often self-perpetuating
- Trauma differentially affects the more vulnerable
- Trauma affects how people approach services
- The service system has often been re-traumatizing
- Staff members are deeply affected by systemic stressors

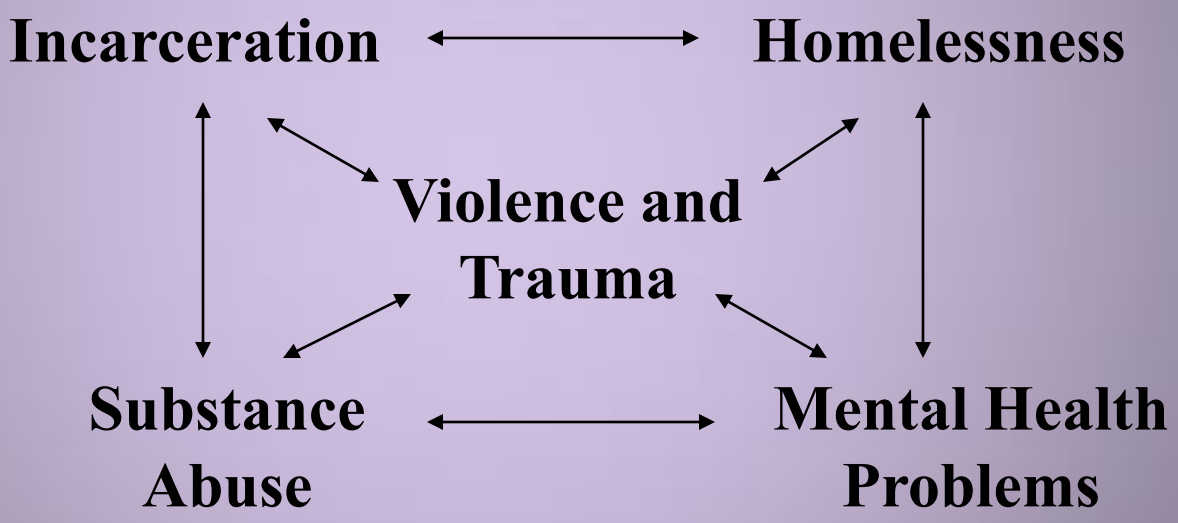
Community Connections

Is Trauma-Informed Care a Fad?

- History of TIC
  - SAMHSA Matrix: Trauma as Cross-Cutting Principle; Women, Co-Occurring Disorders, and Violence Study; National Center for Trauma-Informed Care; NCTSN
  - Harris, M. & Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
  - NASMHPD Initiatives
- Current Initiatives
  - Federal: inclusion in RFAs
  - States: State Public Systems Coalition on Trauma

Community Connections

Changes in Understanding: The Centrality of Trauma



Community Connections

Changes in Understanding: The Paradigm Shift

- Understanding of Trauma
- Understanding of the Individual Who Has Experienced Trauma
- Understanding of Services
- Understanding of the Service Relationship

Community Connections

Traditional Human Services Paradigm

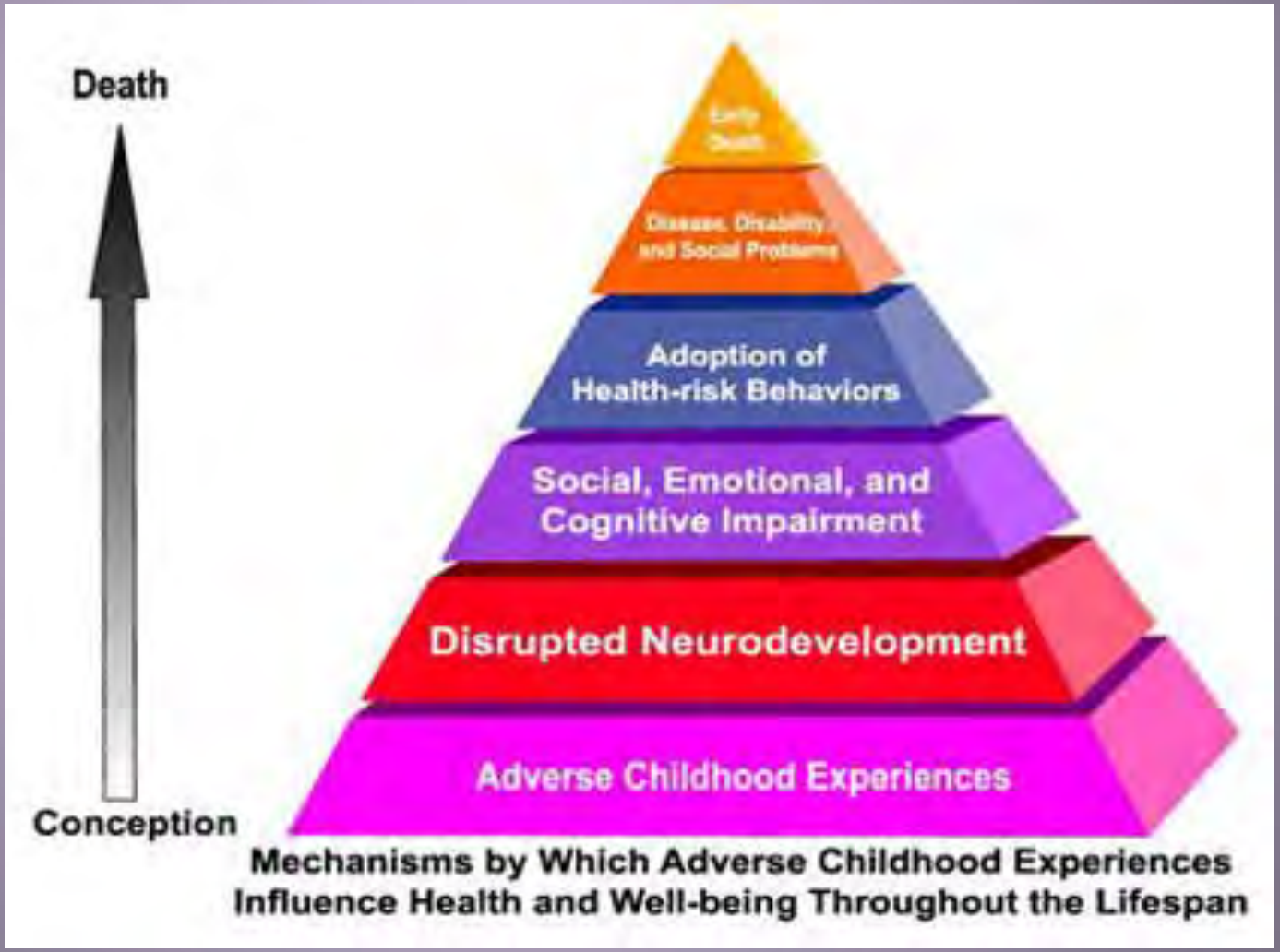
- Understanding of Trauma
  - PTSD as organizing model
  - The impact of trauma is seen in predictable and obviously related domains of functioning
  - Trauma is viewed as a discrete event
  - The impact of trauma follows a definable course with specifiable time limits

Trauma-Informed Human Services Paradigm

- Understanding of Trauma
  - Traumatic events are not rare; experiences of life disruption are pervasive and common
  - The impact of trauma is seen in multiple, apparently unrelated life domains
  - Repeated trauma is viewed as a core life event around which subsequent development organizes
  - Trauma may begin a complex pattern of actions and reactions which have a continuing impact over the course of one's life

Community Connections

Adverse Childhood Experiences (www.ACEstudy.org)



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Community Connections

Traditional Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - Each separate service system has its own view of the individual and her or his problems
  - The “problem” is understood as an individual difficulty independent of context
  - The problem and the symptom are synonymous
  - The individual is often attributed either too little or too much responsibility

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - An integrated, whole person view of both the individual and his or her challenges
  - A contextual, relational view of both challenges and solutions
  - Symptoms understood not merely as problems but primarily as attempts to cope and survive; “symptoms” may be “solutions”
  - Appropriate allocation of responsibility

Community Connections

Traditional Human Services Paradigm

- Understanding of Services
  - The primary goals of services are stability and the absence of symptoms or social problems
  - Services are often reactive rather than proactive
  - Service time limits are economically and administratively driven

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Services
  - Primary goals are growth, empowerment, resilience, and life skill development
  - Service priorities are prevention driven
  - Service time limits are determined by the individual's needs

Community Connections

Traditional Human Services Paradigm

- Understanding of the Service Relationship
  - The individual is seen as passive recipient of services
  - The individual's safety and trust are taken for granted
  - Provider/patient relationships remain uniformly hierarchical

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Service Relationship
  - Both patient and service provider have a unique and valuable perspective
  - Patient voices need to be drawn out in empathic relationships, sensitized to the silencing impact of trauma
  - The individual's safety must be guaranteed and trust must be developed over time
  - Service relationships involve appropriate collaboration

Community Connections

Changes in Practice: Protocol for Developing a Trauma-Informed Culture

- Services-level changes
  - Service procedures and settings
  - Formal service policies
  - Trauma screening, assessment, service planning, and trauma-specific services
- Systems-level/administrative changes
  - Administrative support for program-wide trauma-informed culture
  - Trauma training and education
  - Human resources practices

Community Connections

Changes in Practice: Reviewing Service Procedures and Settings

- 1) Identify formal and informal activities and settings; specify sequence of events
- 2) Ask key questions about each activity and setting
- 3) Prioritize goals for change
- 4) Identify specific objectives, responsible person(s), and allotted time

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

Safety: Physical and Emotional Safety

- To what extent do service delivery practices and settings ensure the physical and emotional safety of patients?
- How can services and settings be modified to ensure this safety more effectively and consistently?

Community Connections

Where is the "here" in this quote?

"If people don't feel safe here, nothing else is going to happen."

http://www.youtube.com/embed/Pwghabw4N80?rel=0

Community Connections

Denial Stops Here!

Community Connections

Optimism Lives Here!

We Believe in Kids!

Community Connections

"You are entering a safe and special place"

Community Connections

From wherever you are,
enter and be welcome.

Community Connections

Trustworthiness: Clarity, Consistency, and Boundaries

- To what extent do current service delivery practices make the tasks involved in service delivery clear? Ensure consistency in practice? Maintain boundaries, especially interpersonal ones, appropriate for the program?
- How can services be modified to ensure that tasks and boundaries are established and maintained clearly, consistently, and appropriately?

Community Connections

Learning from the Remodelers

Community Connections

Choice: Consumer Choice and Control

- To what extent do current service delivery practices prioritize patient experiences of choice and control?
- How can services be modified to ensure that patient experiences of choice and control are maximized?

Community Connections

"An Ounce of Choice is Worth a Pound of Cure"

- Patient preferences in routine practice
- Patient preferences in crisis
- Small choices can have big consequences

Community Connections

Collaboration: Collaborating and Sharing Power

- To what extent do current service delivery practices maximize collaboration and the sharing of power between providers and patients?
- How can services be modified to ensure that collaboration and power-sharing are maximized?

Community Connections

"All Abuse is the Abuse of Power"

- Doing to
- Doing for
- Doing with

Community Connections

Empowerment: Recognizing Strengths and Building Skills

- To what extent do current service delivery practices prioritize patient empowerment, recognizing strengths and building skills?
- How can services be modified to ensure that experiences of empowerment and the development or enhancement of patient skills are maximized?

Community Connections

A Starbucks Customer Satisfaction Survey Story

- Was your drink prepared properly?
- Did anyone greet you by name?
- Was your visit to Starbucks _____?

(fill in the blank)

Changes in Practice: Revisiting the Core Principles Yet Again—for Staff this Time

- Safety: How can we ensure physical and emotional safety for staff members throughout our system of care?
- Trustworthiness: How can we maximize trustworthiness as administrators and supervisors? Make tasks and procedures clear? Be consistent?
- Choice: How can we enhance staff members' choice and control in their day-to-day work?
- Collaboration: How can we maximize collaboration and sharing of power with staff members?
- Empowerment: How can we prioritize staff empowerment and skill-building at every opportunity? Provide resources?

Community Connections

Review of Formal Policies

- Confidentiality policies are clear and shared with patients
- Policies avoid involuntary or coercive elements of treatment
- De-escalation policy is formalized and minimizes possibility of retraumatization
- Program prioritizes patient preferences in responding to crises (e.g., use of preference forms)
- Program has clearly written, accessible statement regarding patient rights and grievances

Community Connections

Trauma Screening, Assessment, Service Planning, and Trauma-Specific Services

- Universal trauma screening
- Follow-up with appropriate assessment of trauma exposure history and impact
- Include trauma-based information in collaborative, person-centered recovery planning
- Offer, or link to, trauma-specific services

Community Connections

Administrative Support for Trauma-Informed Culture

- Support for the integration of knowledge about trauma into all aspects of agency functioning
- Possible indicators:
  - Formal policy or mission statements
  - Developing a “trauma initiative”
  - Making resources available
  - Active administrator participation

Community Connections

Trauma Training and Education

- General trauma education for all staff (including administrators and support staff)
  - Recognize trauma dynamics; avoid retraumatization; understand range of coping behaviors; boundaries
- Clinical trauma education for direct service staff
  - Modifications for their specific areas; trauma-specific interventions; staff self-care

Community Connections

Human Resources Practices

- Hiring or identifying “trauma champions”
  - Knowledgeable about trauma; prioritize trauma sensitivity in service provision; communicate importance of trauma
- Including trauma content in interviews of prospective staff
  - Knowledge about trauma, trauma sequelae, and recovery
- Including trauma-related activities in performance reviews

Community Connections

Conclusion

- What we know about trauma, its impact, and the process of recovery calls for trauma-informed service approaches
- A trauma-informed approach involves fundamental shifts in thinking and practice at all programmatic levels
- Trauma-informed services offer the possibility of enhanced collaboration for all participants in the human service system

Community Connections (www.ccdc1.org): Materials for "Creating Cultures of Trauma-Informed Care"

- Harris, M. and Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
- "CCTIC Program Self-Assessment and Planning Protocol"
- "CCTIC Program Self-Assessment Scale"
- "CCTIC Program Services Implementation Form"

Community Connections

15 min Break

Enjoy!!!

Staff Support in Trauma Informed Programs

Lori L. Beyer, LICSW
Community Connections
Washington, DC

Staff Support and Well-Being

Understanding trauma-informed change as a "cultural" and "systemic" process means:

- Support and care for entire staff is essential, not an option or luxury
- Staff support is an organizational obligation as well as a "personal" or "professional" concern
- In stressed systems, trauma is a literal and figurative reality for many administrators and staff
- In such settings, we can apply much of what we know about trauma and recovery to the agency or program as a whole

The Basic Lesson

Staff members—all staff members—can create a setting of, and offer relationships characterized by, safety, trustworthiness, choice, collaboration, and empowerment only when they experience these same factors in the program as a whole. It is unrealistic to expect it to be otherwise.

A Culture Shift: The Core Principles of a Trauma-Informed System of Care (Revisited)

- Safety: Ensuring staff physical and emotional safety
- Trustworthiness: Maximizing trustworthiness of the system and making staff tasks clear
- Choice: Enhancing staff choice and control
- Collaboration: Maximizing collaboration and sharing of power with staff
- Empowerment: Prioritizing staff empowerment and skill-building

Name that Stressor

Some Common Stressors in Human Services

- Goals/demands exceed resources: do more with less
- Conflicting obligations or expectations
- Ambiguous standards for success
- Physical danger
- Emotional challenges, including vicarious trauma
- Few staff supports

Adapted from Russo, 2007

Vicarious Trauma and Burnout

- Vicarious Trauma (Compassion fatigue): Client-related flashbacks, troubling dreams, intrusive thoughts, sudden recall of frightening experiences, losing sleep
- Burnout: Work-related feelings of being trapped, hopeless, tired, depressed, worthless; unsuccessful at separating work from personal life

Adapted from Adams et al., 2006

Levels of Work-Related Stress

- Organizational: budget constraints; limited leave, supervision, physical resources (space, e.g.); increased caseloads
- Professional: beliefs about empathy, independence, and stoicism; number of education/consultation events
- Personal: personal trauma history; ineffective coping attempts; current stressors in personal life

Adapted from Russo, 2007

A Multi-Level Response to Stress

- Organizational: what the agency, program, or setting can do to support staff
- Professional: what the staff member and agency can do to enhance professional and work-related strengths
- Personal: what the staff member and agency can do to enhance personal well-being

Psychologically Healthy Workplaces

- Employee involvement
- Work-life balance
- Employee growth and development
- Health and safety
- Employee recognition

American Psychological Association, 2007

Toxic vs. Healthy Work Cultures

Adapted from Kahn & Langlieb, 2003 and Russo, 2007

- People do not help each other.
- Human needs are ignored.
- People feel alienated and dehumanized.
- Alternative approaches are met with derision.
- Cliques are common.
- There is systemic rigidity; boss is always right.

- Workers know what is expected of them.
- They have the resources to do the work.
- They have daily opportunities to do what they do best.
- Praise is offered regularly.
- Personal and professional development is encouraged.

What Helps? Organizational Responses

- Supervision/consultation/case discussion
- Time off for staff
- Education/training/new skills
- Opportunities to discuss and debrief about client- and work-related stressors
- Variety in caseload and work tasks
- Mental health benefits

Adapted from Russo, 2007

What Helps? Professional Responses

- Understand your own work needs
- Take time off from work
- Find education/training for new skills
- Take advantage of supervision/consultation
- Identify strengths—clients' and your own
- Accept reality of stress and strain
- Nurture your sense of humor

Adapted from Russo, 2007

What Helps on a Daily Basis?

- Pace yourself; take breaks when possible
- Talk to someone else—someone helpful
- Develop your own list of self-soothing activities that "fit" at work—and use them
  - Breathing, relaxation, meditation
  - Self-talk that is reassuring
- Monitor your body's reactions to the day

Adapted from Russo, 2007

Helping Yourself/Helping Others

- Accept stress and related feelings as legitimate—for yourself and for coworkers
- Express support and find supportive others
- Promote solutions rather than complaints
- Contribute to cohesion of your workgroup
- Strive for open and direct communication
- Frame problems and solutions as group concerns rather than individual ones

Adapted from Russo, 2007

What Helps?
Personal Responses

- Be honest about your exposure to emotionally stressful material
- Attend to inner experience; therapy?
- Build in transition times between work and home
- Use coping skills common in trauma curricula
- Have fun, be spontaneous, laugh
- Personal life? Balanced life? Spiritual life?

Adapted from Russo, 2007

Conclusion

- Trauma-informed service approaches involve the entire culture and all constituencies of a program
- Staff support and care are therefore a key element in this model
- Organizational, professional, and personal resources can help staff deal more effectively with work-related stress

How We're Becoming Trauma Informed

Implementing Trauma Informed Care in Nova Scotia

First Steps

- External Review – Child and Adolescent Mental Health and Addictions Services in the Halifax Regional Municipality (DHW/IWK)
- Action plan developed regarding how to proceed with recommendations (IWK/DHW)

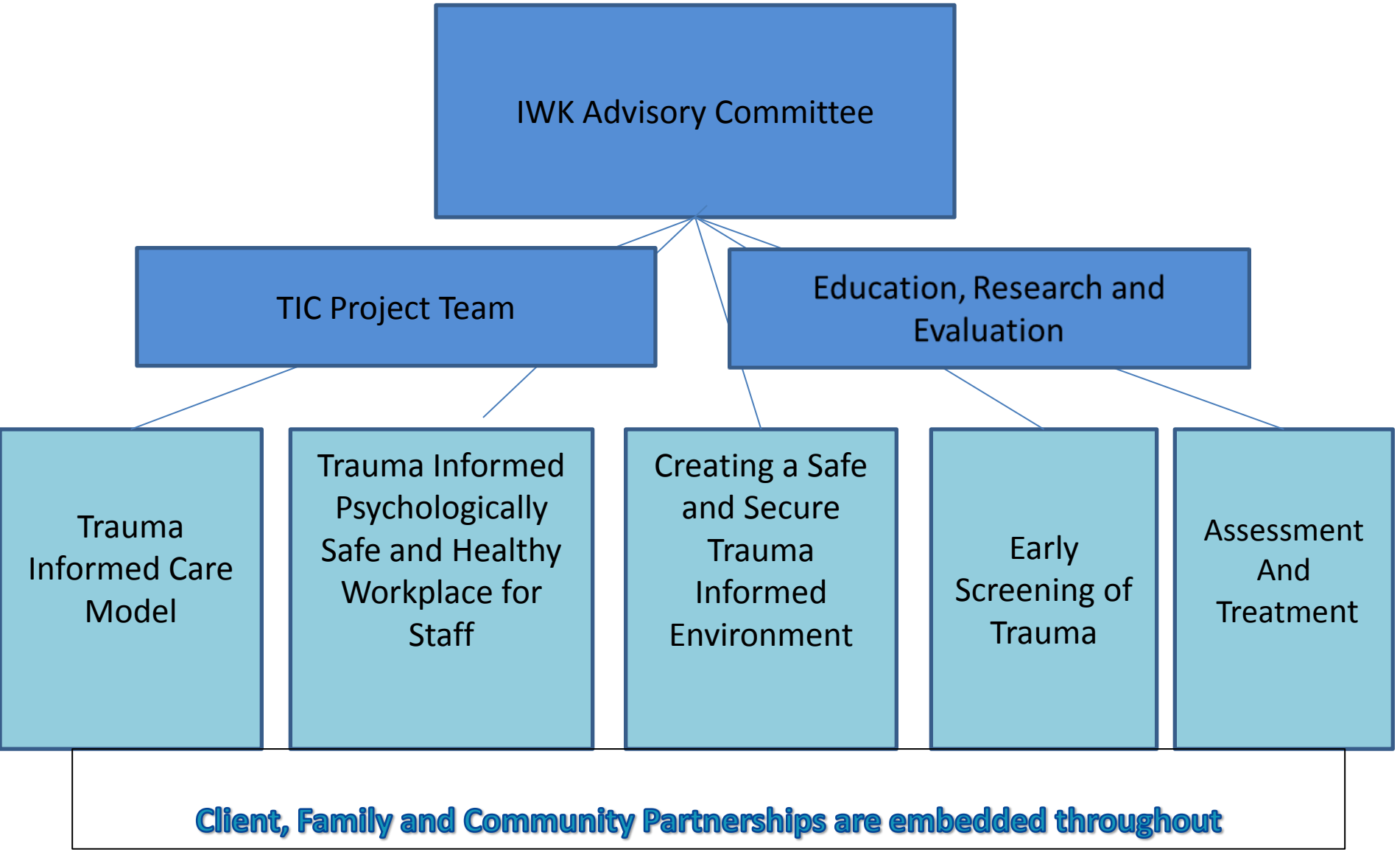
DHW /IWK Initiatives

- Formation of Provincial Project Advisory Team
- Provincial Consultations
- Webinars
- Framework ,Practice Briefs and Standards.

IWK Initiatives

- Formation of IWK CDHA Advisory Committee and Working Groups
- Work started on all working groups

Trauma Informed Care Team Structure



Some Examples of Working Group Initiatives

- Staff Mindfulness Training Pilot Study
- Debriefing Process and Resources
- Support for Staff - Resource List
- Website
- Trauma Informed Environmental Checklists

Look Around Your Physical Environment

- Examine your physical spaces to ensure they are comfortable, safe and calming
- Signage– Is the wording framed as what you can do vs. what you can't do?
- Are your waiting areas welcoming and friendly with comfortable furniture with maintenance up to date?
- Do you have information in client/patient areas that is intended to assist staff but may be triggering for clients/patients?
- Provide culturally appropriate symbols of safety in the physical environment (e.g. if you received Ali training -LGBTQI rainbow flag on an office door, culturally diverse posters, age appropriate)
- Artwork- Is the art work displayed calming to most people?

Be Mindful of the Emotional Environment

- Create interactions that are kind, calm, reassuring, safe, strengths-based and respectful
- Engaging around the client's/patient's goals
- Provide relationships which are honest and transparent and provide the client/patient with a developmentally appropriate degree of power and control. The child should understand what is about to happen, have a say and some control over pain management.
- Ask what helps when you or your child are upset/in pain? What was successful in the past? What are the triggers? What can we do?
- Continually seeking feedback regarding the client/patient's experience.
- Recognizing a coworker may be experiencing difficulty and offering support at the team level and also the organizational level.

OUR WORDS HAVE POWER

OLD WAY OF THINKING/DEFICIT BASED VS. TRAUMA INFORMED LANGUAGE/STRENGTHS BASED

What is wrong with you?	What happened to you? How did you cope?
This person is being manipulative	They are trying to get their needs met
They want attention	They are trying to connect the best they can
They have poor coping methods	They have survival skills and we can further support them by offering ideas for additional coping strategies
They'll never get over it, or they are permanently damaged	People can continue to learn effective coping strategies, and can recover from trauma
I shouldn't raise the issue of trauma or they will get upset	Talking about trauma (without forcing disclosure) gives opportunity to discuss, normalize & learn coping strategies. Failing to ask may reinforce society's denial of either prevalence or impact of trauma.

Introduction to Education Plan

Level 1: For EVERYONE

- **KICK OFF EVENT!!!!**
- General Awareness Campaign (e.g., Posters, 'Did You Know' emails)
- All IWK Staff Core Competencies (in development)
- Website (now available)
- TIC Education Sessions
  - Cultural Sensitivity/Competence/Relevance and TIC
  - Patient and Family Panel
  - Community Partners Panel
  - TIC Safe and Secure Environments

Sustainability Plan:

- Team-specific and Community-Based Organization consultations
- Train the Trainer Program/Trauma Informed Care Champions
- IWK TIC-Specific Staff Orientation/Onboarding Modules
- IWK Online/E-Source Education and 'Re-certification' Module
- TIC principles incorporated into Non-Violent Crisis Intervention

Level 2: For Designated Mental Health and Addictions Staff & Identified Individuals/Teams

- Attachment, Regulation and Competency (ARC) Training

- Clinician Core Competencies (in development)

Level 3: For Designated Clinicians who provide Trauma-Specific Services

- Evidence-Based Trauma-Specific Interventions Training for Mental Health and Addictions Clinicians

Sustainability Plan

Evaluation

- Community Connections Protocol for Certification (Harris and Fallot, 2009)
- Annual All Staff Survey (aka Readiness Survey)
- Annual Team TIC Evaluation Template
- Core Competencies
- Checklists

Potential Future Initiatives

- Online Education and Recertification Modules/Onboarding
- Performance Review Considerations
- Human Resources Considerations
- Student Training and Research Opportunities
- Curriculums for Health Professions

Examples of Research Opportunities

- Benchmarking Study
- TIC Pre-2016 at the IWK Study
- Patient/Family Driven Research Projects
- Client, family, staff, community partner satisfaction/feedback surveys/Focus groups
- Seclusion and restraint prevention research
- Screening
- Evidence-based trauma-specific intervention outcomes/Patient reported outcomes
- IT systems and trauma tracking
- IWK Resources/Services for Newcomers to Canada

Introducing our New Logo/Tagline

Website

www.yourexperiencesmatter.com

Acknowledgements

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- Lori Beyer, Community Connections Inc.
- Department of Health and Wellness
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- Nova Scotia Health Authority
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- Trauma Informed Care Project Team
- Trauma Informed Care Working Groups
- Trauma Informed Care Working Group Co-Leads
- Our system and community partners
- Revolve Branding
- All of you for taking the time out of your day to learn more about trauma informed care.

Special Thanks to the TIC Project Team for making this week happen!

- Jennifer Jeffrey, Project Manager
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- Charlene Martell, TIC Administrative Assistant
- Jennifer McCarron, TIC Policy and Communications Lead
- Joanne Zevenhuizen, MHA Advanced Practice Leader: Education

Questions

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Open Access

Shelter from the Storm: Trauma-Informed Care in Homelessness Services Settings

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Abstract: It is reasonable to assume that individuals and families who are homeless have been exposed to trauma. Research has shown that individuals who are homeless are likely to have experienced some form of previous trauma; homelessness itself can be viewed as a traumatic experience; and being homeless increases the risk of further victimization and retraumatization. Historically, homeless service settings have provided care to traumatized people without directly acknowledging or addressing the impact of trauma. As the field advances, providers in homeless service settings are beginning to realize the opportunity that they have to not only respond to the immediate crisis of homelessness, but to also contribute to the longer-term healing of these individuals. Trauma-Informed Care (TIC) offers a framework for providing services to traumatized individuals within a variety of service settings, including homelessness service settings. Although many providers have an emerging awareness of the potential importance of TIC in homeless services, the meaning of TIC remains murky, and the mechanisms for systems change using this framework are poorly defined. This paper explores the evidence base for TIC within homelessness service settings, including a review of quantitative and qualitative studies and other supporting literature. The authors clarify the definition of Trauma-Informed Care, discuss what is known about TIC based on an extensive literature review, review case examples of programs implementing TIC, and discuss implications for practice, programming, policy, and research.

Keywords: Homelessness, trauma, trauma-informed, systems change.

INTRODUCTION

Trauma-Informed Care: A Paradigm Shift for Homeless Services

> *"Homelessness deprives individuals of…basic needs, exposing them to risky, unpredictable environments. In short, homelessness is more than the absence of physical shelter, it is a stress-filled, dehumanizing, dangerous circumstance in which individuals are at high risk of being witness to or victims of a wide range of violent events"* [1].

Homelessness is a traumatic experience. Individuals and families experiencing homelessness are under constant stress, unsure of whether they will be able to sleep in a safe environment or obtain a decent meal. They often lack a stable home and also the financial resources, life skills, and social supports to change their circumstances. In addition to the experience of being homeless, an overwhelming percentage of homeless individuals, families, and children have been exposed to additional forms of trauma, including: neglect, psychological abuse, physical abuse, and sexual abuse during childhood; community violence; combat-related trauma; domestic violence; accidents; and disasters. Trauma is widespread and affects people of every gender, age, race, sexual orientation, and background within homeless service settings.

Early developmental trauma—including child abuse, neglect, and disrupted attachment—provides a subtext for the narrative of many people's pathways to homelessness [2]. Violence continues into adulthood for many people, with abuse such as domestic violence often precipitating homelessness [3-5], and with homelessness leaving people vulnerable to further victimization. The impact of traumatic stress often makes it difficult for people experiencing homelessness to cope with the innumerable obstacles they face in the process of exiting homelessness [6], and the victimization associated with repeated episodes of homelessness. Research has found that people who experienced repeated homelessness were more likely than people with a single episode of homelessness to have been abused, often during childhood [6].

Trauma refers to an experience that creates a sense of fear, helplessness, or horror, and overwhelms a person's resources for coping. The impact of traumatic stress can be devastating and long-lasting, interfering with a person's sense of safety, ability to self-regulate, sense of self, perception of control and self-efficacy, and interpersonal relationships. Some people have minimal symptoms after trauma exposure or recover quickly, while others may

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develop more significant and longer-lasting problems such as Posttraumatic Stress Disorder (PTSD) and Complex Trauma.

Trauma reactions are not the only psychiatric issue facing people who are homeless; many people experiencing homelessness also suffer from depression, substance abuse [7-10], and severe mental illness [8, 10]. These issues leave individuals even more vulnerable to revictimization [11], interfere with their ability to work, impair their social networks [8], and further complicate their service needs.

These findings suggest that we will be unable to solve the issue of homelessness without addressing the underlying trauma that is so intricately interwoven with the experience of homelessness. Those working in homeless services have the opportunity to reach many trauma survivors who are otherwise overlooked. Providers in these settings address the immediate crisis by offering food, shelter, and clothing; but they can also contribute to longer-lasting changes by helping an individual or family develop supportive connections in the community and begin to heal from past traumas. Despite this fact, few programs serving homeless individuals and families directly address the specialized needs of trauma survivors. Homeless services have a long history of *serving* trauma survivors, without being *aware of* or *addressing* the impact of traumatic stress [12]. Overwhelmed by the daily needs of their clients, providers in these settings often have few resources to address issues of long-term recovery.

With increasing recognition of the pervasiveness of traumatic stress among people experiencing homelessness, awareness is growing of the importance of creating Trauma-Informed Care within homeless services settings. Trauma-Informed Care (TIC) involves "understanding, anticipating, and responding to the issues, expectations, and special needs that a person who has been victimized may have in a particular setting or service. At a minimum, trauma-informed services endeavor to do no harm—to avoid retraumatizing or blaming [clients] for their efforts to manage their traumatic reactions" [13]. Implementing TIC requires a philosophical and cultural shift within an agency, with an organizational commitment to understanding traumatic stress and to developing strategies for responding to the complex needs of survivors.

Despite its importance, the implementation of TIC within homelessness service settings is still in its infancy. Currently, the nature of TIC remains ill-defined. Strategies for implementation are obscure, few program models exist, and there is limited communication and collaboration among programs implementing TIC. The descriptive and research literature in this area is sparse, with only a handful of studies examining the nature and impact of TIC. More clarification is needed about what exactly defines TIC, what changes should be made within systems wishing to offer TIC, and how these changes should be implemented.

The purpose of this paper is to review the evidence base that supports the use of TIC for individuals and families experiencing homelessness. In this review, we have attempted to:

- Establish a consensus-based definition of TIC
- Discuss what is known about TIC based on our literature review
- Describe models and case examples of what is being done in the field to implement TIC within homeless service settings

We conclude by summarizing implications of our current state of knowledge for practice, programming, policy, and research and by highlighting next steps for developing evidence-based, trauma-informed homeless services.

What is Trauma-Informed Care (TIC)?

What is meant by TIC? Although there is agreement that "trauma-informed" refers generally to a philosophical/ cultural stance that integrates awareness and understanding of trauma, there is no consensus on a definition that clearly explains the nature of TIC.

TIC supports the delivery of Trauma-Specific Services (TSS). TSS refers to interventions that are designed to directly address the impact of trauma, with the goals of decreasing symptoms and facilitating recovery. TSS differs from TIC, in that TSS are specific treatments for mental disorders resulting from trauma exposure, while TIC is an overarching framework that emphasizes the impact of trauma and that guides the general organization and behavior of an entire system. TSS may be offered within a trauma-informed program or as stand-alone services [12].

Based on the literature review, we summarized the basic principles of TIC proposed by various workgroups, organizations, expert panels, and researchers. (see Table **1**). Each of these sources posited a unique definition of TIC. We identified and highlighted common cross-cutting themes and then synthesized them into a single definition. Themes include:

- **Trauma awareness**: Trauma-informed service providers incorporate an *understanding of trauma* into their work. This may involve altering staff perspectives, with providers understanding how various symptoms and behaviors represent adaptations to traumatic experiences. *Staff training*, *consultation*, and *supervision* are important aspects of organizational change towards TIC and organizational practices should be modified to incorporate awareness of the potentially devastating impact of trauma. For example, agencies may implement routine screening for histories of traumatic exposure, may conduct routine assessments of safety, and may develop strategies for increasing access to trauma-specific services. Dealing with *vicarious trauma* and *self-care* is also an essential ingredient of trauma-informed services. Many providers have experienced trauma themselves and may be triggered by client responses and behaviors.
- **Emphasis on safety**: Because trauma survivors often feel unsafe and may actually be in danger (e.g., victims of domestic violence), TIC works towards building *physical and emotional safety for consumers and providers*. Precautions should be taken to ensure the physical safety of all residents. In addition, the organization should be aware of *potential triggers* for consumers and strive to avoid retraumatization. Because interpersonal trauma often involves boundary violations and abuse of power, systems that are aware of trauma dynamics should establish *clear roles and boundaries* that are an outgrowth of collaborative decision-making.

Privacy, confidentiality, and *mutual respect* are also important aspects of developing an emotionally safe atmosphere. Additionally, *cultural differences and diversity* (e.g., gender, ethnicity, sexual orientation) must be addressed and respected within trauma-informed settings.

- **Opportunities to rebuild control:** Because control is often taken away in traumatic situations, and because homelessness itself is disempowering, trauma-informed homeless services emphasize the *importance of choice* for consumers. They create *predictable environments* that allow consumers to re-build a sense of *efficacy and personal control* over their lives. This includes involving consumers in the design and evaluation of services.
- **Strengths-based approach**: Finally, TIC is *strengths-based*, rather than deficit-oriented. These service settings assist consumers to identify their own strengths and develop coping skills. TIC service settings are *focused on the future* and utilize *skills-building* to further develop resiliency.

These principles form a standard for programs wishing to develop TIC within homeless service settings. Based on these combined principles, we developed a consensus-based definition of TIC:

Consensus-Based Definition

> "Trauma-Informed Care is a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment."

Trauma-informed approaches are designed to respond to the impact of trauma. The principles described above target the specialized needs of trauma survivors and describe how services can be delivered through the lens of trauma.

METHODS

This paper reviews the evidence base supporting the effectiveness of TIC for people experiencing homelessness. To date, most determinations of what constitutes evidence-based practice have relied on outcome-based quantitative research. However, this approach neglects qualitative analyses that examine the nature and process of the intervention, as well as a wealth of information that reflects what is occurring in practice. In fact, corroborative evidence, including clinical wisdom about "what works," is often the starting point for developing both qualitative and quantitative studies. In the homelessness field, corroborative evidence may be the primary body of knowledge we have about a particular intervention.

For this review, we utilized a comprehensive framework that was developed by the Homelessness Resource Center (HRC) for assessing the level of evidence of an emerging, promising or best practice [15]. The goal of this framework is not to decide whether a practice qualifies as evidence-based, but rather to synthesize all that we currently know about the intervention. Thus, our review included peer-reviewed quantitative and qualitative studies, as well as corroborative literature (e.g., program evaluations and unpublished pilot studies).

The literature on TIC is significantly greater in mental health and substance use fields than within the homelessness field. Thus, we also reviewed the current evidence base for trauma-informed practices in these areas since there is a large overlap in the difficulties faced by many individuals with mental health/substance use issues and those in homeless service settings. In fact, in the Women, Co-Occurring Disorders, and Violence Study (WCDVS), a large multi-site study examining trauma-informed services for women with co-occurring disorders and trauma exposure, 70.4% of participants had been homeless at some point in their lives [16]. We reviewed evidence for trauma-informed services within all these settings, applying this broader knowledge base to our understanding of TIC within homeless service settings.

We conducted our literature review by searching two databases, PsycInfo and Medline (PubMed), for peer-reviewed articles published in major journals. In addition, we used the Google search engine to locate web-based literature and program information. Our search terms included: homeless, homelessness, housing, shelters, trauma, trauma-informed, PTSD, services, abuse, violence, domestic violence, psychological, substance use, and mental health. We also completed more specialized searches on unique populations (using search terms such as youth, men, ethnicity, veterans), authors of note (e.g., Harris, Fallot, Bassuk, and van der Kolk), models (e.g., Attachment, Self-Regulation and Competency [ARC] and Sanctuary), programs (e.g., Community Connections, the STAR program, and the Community Trauma Treatment Center for Runaway and Homeless Youth), and research studies (e.g., the Women, Co-Occurring Disorders, and Violence Study).

In addition to reviewing the literature, we contacted various programs directly, by telephone or email, including: the National Center on Family Homelessness (Moses, Guarino); Homelessness Resource Center (Olivet); Community Connections (Fallot); the Institute for Health and Recovery (Markoff & Dargon-Hart); CT State Department of Mental Health and Addiction Services (Leal); the Domestic Violence & Mental Health Policy Initiative (Brashler, Hall); the Community Trauma Treatment Center for Runaway and Homeless Youth (Schneir); the Trauma Center at JRI/ Youth on Fire, developers of Phoenix Rising (Spinazzola); Kinniburgh and Blaustein, developers of ARC; Cincinnati Children's Hospital Medical Center, developers of CARE (Pearl); University of Connecticut Department of Psychology and the CT Department of Mental Health and Addiction Services Research Division (Marra). Many of these programs sent unpublished program evaluation reports, manuals, or self-assessment tools, for inclusion in this review.

RESULTS

Organizational Needs Assessments: Do We Need Trauma-Informed Care?

Needs assessments can be used to identify needs and to detect gaps in service within a system. We began by reviewing results of needs assessments conducted by several agencies regarding the relevance of trauma within their service system and the need for TIC. These needs

Table 1. Principles of Trauma-Informed Care

		Example Definitions of Trauma-Informed Care				
Common Principles Across Definitions		**Community Connections: Five Guiding Principles for Trauma-Informed Services** [12]	**NASMHPD*: Criteria for Building a Trauma-Informed Mental Health Service System**	**NCTSN**: Principles of Trauma-Informed Care for Children**	**NCFH***: Operating Principles for Trauma-Informed Organizational Self-Assessment**	**WCDVS****: Trauma-Informed or Trauma-Denied: Principles & Implementation of Trauma-Informed Services for Women** [14]**.**
Consensus-Based Principles Across Definitions		**Theory-Based**	**Expert Trauma Panel**	**Experts**	**Theory-Based**	**Research-based**
1. Trauma Awareness	**a. Program philosophy and mission**		Trauma function/ focus, trauma policy or position, financing for best practices, trauma-informed services, clinical practice guidelines for people with trauma histories, trauma-informed disaster planning, systems integration, research & data on trauma & evidence-based & best-practice treatment models, access to evidence-based & best-practice trauma treatment		Trauma awareness; basic understanding of trauma & triggers; includes staff training & supervision, educating consumers about trauma	Recognize the impact of trauma on development and coping
	b. Staff education, training, and consultation		Workforce orientation, training, support, competencies and job standards related to trauma; promote education of professionals in trauma			Emphasize trauma recovery as a primary goal
	c. Practices		Trauma screening and assessment; Trauma-specific services, including evidence-based and emerging best-practice treatment models		Integration (symptoms such as adaptive coping, integrating services, trauma-specific services)	
	d. Recognition of vicarious trauma and staff self-care					
2. Safety	**a. Physical and emotional safety**	Safety (physical and emotional)		Maintaining clear and consistent boundaries	Safety, basic needs, consistency, and predictability	Create an atmosphere of safety, respect, and acceptance
	b. Relationships: authentic, respectful, clear boundaries	Trustworthiness (clear tasks, consistent practices, staff-consumer boundaries)		[see Delivering services below]	Engagement: respectful nonjudgmental relationships, clear boundaries	Utilize a relational collaboration model. Growth is fostered by mutual, respectful, authentic relationships
	c. Avoid retraumatization		Procedures avoid retraumatization and reduce impacts of trauma			Minimize retraumatization

(Table 1) contd…..

		Example Definitions of Trauma-Informed Care				
Common Principles Across Definitions		**Community Connections: Five Guiding Principles for Trauma-Informed Services** [12]	**NASMHPD*: Criteria for Building a Trauma-Informed Mental Health Service System**	**NCTSN**: Principles of Trauma-Informed Care for Children**	**NCFH***: Operating Principles for Trauma-Informed Organizational Self-Assessment**	**WCDVS****: Trauma-Informed or Trauma-Denied: Principles & Implementation of Trauma-Informed Services for Women** [14]**.**
Consensus-Based Principles Across Definitions		**Theory-Based**	**Expert Trauma Panel**	**Experts**	**Theory-Based**	**Research-based**
	d. Acceptance of and respect for diversity		Trauma policies and services that respect culture, race, ethnicity, gender, age, sexual orientation, disability, and socio-economic status	Delivering services in a nonjudgmental and respectful manner	Cultural competence	Work towards cultural competence, understand contextual factors
3. Choice & Empowerment	**a. Choice and control**	Choice: maximize consumer choice and control	Consumer/Trauma Survivor/ Recovering person involvement and trauma-informed rights	Maximizing choice and control for participants	Consumer control, choice and autonomy	Underscore consumers' choice and control over recovery
	b. Empowerment model	Empowerment: prioritize consumer empowerment, skill-building, and growth		Avoiding provocation and power assertion	Open communication: provide information openly to consumers	Use an empowerment model
	c. Consumers involved in service development and evaluation	Collaboration: maximize collaboration and sharing of power between staff and consumers		Sharing power in the running of shelter activities	Shared power and governance	Involve consumers in design and evaluation of services
4. Strengths-based	**Focus on strengths, resiliency**	[see Empowerment above]			Healing, instilling hope	Highlight consumers' strengths, adaptations, and resiliencies

***** NASMHPD= National Association of State Mental Health Program Directors.
** NCTSN = National Child Traumatic Stress Network.
*** NCFH = National Center on Family Homelessness.
**** WCDVS = Women, Co-Occurring Disorders and Violence Study.

assessments were generally designed as a first step, prior to initiating a more formal organizational self-assessment or to beginning programmatic shifts. Several findings emerged from a review of these needs assessments:

- **Providers feel that they need to be better informed about trauma and violence** [17, 18]. Directors and staff within state domestic violence coalitions reported that many shelters are unprepared to deal with the complex needs of the women they serve, many of whom have few resources and have been victimized as children and as adults. Domestic violence advocates reported an increasing awareness of the need for services appropriate for women with mental health issues, substance abuse problems, and histories of abuse. They also expressed a need for guidance and resources in improving their responses to survivors of domestic violence who have experienced multiple abuses throughout their lives [18]. A multi-site program implementing trauma-informed services found that prior to implementation, sites had little knowledge about trauma, how to facilitate recovery, or how services might help or retraumatize survivors [19].
- **Many providers do not have systematic ways of assessing for trauma-related issues.** In a study examining PTSD screening and referral practices in VA addiction treatment programs, they found that although one-half to two-thirds of clinicians did routinely screen for trauma exposure and posttraumatic stress symptoms, assessments were generally not conducted systematically and did not utilize validated measures [20].
- **Consumers want services that are empowering.** Qualitative research has suggested that homeless individuals and families need and want trauma-informed services, including desire for autonomy, prevention of further victimization, and assistance in restoring their devalued sense of identity [21]. A provider guidebook, written from a consumer perspective, notes the need for accessible and effective programs for trauma survivors [22].

- **Mental health services are an important need for many homeless families and individuals.** In a multi-site research study on trauma-informed services for homeless families, researchers examined current service needs, including families' need for social capital (educational or employment-related interventions), physical health, and mental health/substance use treatment. Among the families, they found that "mental health needs were the most prevalent of all the intervention needs components across sites (62%)," with many facing multiple challenges, signaling the need for comprehensive intervention [23].

The results of these needs assessments supported the central importance of dealing with trauma within homelessness service settings and the perceived need for TIC.

Trauma-Informed Care within Homelessness Services Settings: Attitudes, Implementation, and Outcomes

Once the perceived need for trauma services is established, we can begin to explore the development of a TIC framework within homelessness service settings. We reviewed available quantitative, qualitative, and corroborative evidence regarding trauma-informed services.

Prochaska's stages of change model [24] highlights the fact that change is a process for individuals, who progress through precontemplation, contemplation, action, and maintenance of change. Similarly, systems change is a multi-step process. Our review of the literature highlighted three areas of evidence: attitudes, implementation, and outcomes. "Attitudes" refers to the beliefs of consumers and providers (at all levels, from management to front-line workers) of the need for a paradigm shift, confidence in ability to institute a paradigm shift, and belief that such a shift will lead to positive outcomes. "Implementation" coincides with Prochaska's action stage of change. It is a process variable, and is concerned with *how* changes are made. Implementation requires a clear definition of what is meant by Trauma-Informed Care, in order to translate these principles into concrete changes that will be instituted within the system. Finally, "outcomes" refers to the impact of a paradigm shift to TIC within homelessness service settings. Measurable objectives help to assess the efficacy of systems change. Outcomes may include measurable quantitative outcomes, such as a decrease in recidivism in homelessness, or qualitative outcomes, such as self-esteem or satisfaction with services.

Review of the Evidence: What Do We Know About TIC?

In our review of the evidence for TIC, several salient points emerged:

1. Attitudes

- **Programs attempting to implement TIC have encountered some concerns and resistance on the part of providers.** Providers may be afraid that addressing trauma will open a "Pandora's box" of reactions. They may lack confidence in their ability to manage and address trauma reactions and may be concerned that they will encounter triggers of their own trauma histories [19]. They may also worry that they will not have the resources to adequately respond to the complex needs of survivors.
- **Because of these concerns, taking the time to build "buy-in" is particularly important.** Recognizing the importance of commitment in organizations, some programs have developed committee structures geared towards obtaining "buy-in" from administration, program staff, and consumers. Building strong relationships also aided buy-in and integration of services [19]. After building agency-wide commitment, programs have found strong support from staff members for implementing a trauma-informed model [25].
- **Consumers want providers who are empathic and caring, who provide validation, and who offer emotional safety—characteristics of trauma-informed providers.** Consumers have emphasized the benefits of working with trauma-informed providers. Some have suggested that programs could benefit from having more trauma services, that practitioners need to remain patient, and that consumers themselves need to be invested in actively addressing their own issues [26]. However, even within trauma-informed systems, consumers sometimes struggle to feel empowered within a larger service system [27].

2. Implementation

- **Training is central to implementing TIC.** The majority of programs working to build TIC utilized staff training to increase awareness of and sensitivity to trauma-related issues. A large multi-site study of trauma-informed models found that "training on trauma for non-trauma providers was the first and most important step in making services more trauma-informed" [19].
- **Ongoing supervision, consultation, and support are needed to reinforce trauma-based concepts.** One lesson from WCDVS was the importance of ongoing supervision and support to ensure that the environment is trauma-informed and that staff members practice appropriate self-care. Many programs also used external trauma consultants and ongoing training to reinforce knowledge and commitment to building trauma-informed services [19].
- **Assessment and screening are important aspects of trauma-informed services.** Research documenting high prevalence rates of trauma among people experiencing homelessness has led to the conclusion that screening for trauma is important within homeless service settings [28]. Although providers have at times expressed concern that inquiring about trauma histories will lead to traumatic stress responses, findings indicate that there are few adverse reactions to screening and assessment. Instead, most people benefit from this type of assessment [29]. Several pilot studies show that providers refined their intake processes to include screening for trauma exposure [28, 30]. Additionally, screening and assessment tools should be revised and refined with consumer and provider feedback [29].

- **Because homeless individuals often have a multitude of service needs, comprehensive and integrated services are essential.** Studies have found that service settings offering integrated counseling—addressing trauma, mental health, and substance use issues—had better results than settings that were not integrated [31].
- **Integrating trauma-informed services for children is also important.** Children of parents who are dealing with trauma, mental illness, substance abuse, and/or homelessness may be at greater risk for adverse outcomes. A number of programs working to integrate trauma-informed services have also highlighted the importance of parallel services for children. In WCDVS, a subset of sites offered specialized children's programs, including assessment, groups, and resource coordination/advocacy for children to build coping skills, strengthen interpersonal relationships, and develop positive identity and self-esteem [32].
- **Many factors challenge implementation of trauma-informed services.** Various reports highlighted the logistical difficulties of systems change. Change, especially within larger systems, can be time-consuming and requires a great deal of commitment across all levels of an organization. Organizational resistance and stress can be a barrier to larger systems change [33]. Moses highlighted challenges to systems change across a number of sites working to implement integrated, trauma-informed services for women with co-occurring disorders. These challenges included philosophical differences between mental health and substance use treatment approaches, differences around issues of trauma, resistance at the service and administrative levels, limited resources, difficulties in achieving consistent participation in trauma groups, staff turnover, and the difficulty of change in general [13].
- **Implementing a trauma-informed model can lead to changes in how an organization functions.** In a program implementing a trauma-informed model, staff reported a number of changes within their programs, including increased awareness and sensitivity about trauma, intake that incorporates questions about trauma, more freedom and choice given to consumers regarding their treatment, and environmental changes that led to increases in safety, confidentiality, and a more welcoming atmosphere [30].
- **Including consumers in developing and evaluating trauma-informed services is important.** Although there has not yet been research that examines differences in services that include or do not include consumers in program development and evaluation, current wisdom in the field stresses the importance of including consumers in all aspects of programming [34, 35]. This wisdom is consistent with theories on empowerment, which suggest that survivors should be given agency in effecting their own outcomes [36]. The WCDVS found that integrating consumers into the design and evaluation of services had a profound impact on the systems involved [19], and that "integral to the… group's personal and professional growth was the development and expression of their individual and collective voices" [27].
- **Cultural competence is important in developing TIC.** Because trauma may have different meanings in different cultures, and because traumatic stress may be expressed differently within different cultural frameworks, it is important for providers within a trauma-informed system to work towards developing cultural and linguistic competence [13].

3. Outcomes

- **Trauma-informed service settings, with trauma-specific services available, have better outcomes than "treatment as usual" for many symptoms.** We know from a variety of studies [31, 37] and pilot programs [38] that setting that utilize a trauma-informed model report a decrease in psychiatric symptoms and substance use. Some of these programs have shown an improvement in consumers' daily functioning and a decrease in trauma symptoms, substance use, and mental health symptoms. These findings suggest that integrating services for traumatic stress, substance use, and mental health leads to better outcomes [16].
- **TIC for children lead to better outcomes, such as better self-esteem, improved relationships, and increased safety.** A subset of programs within WCDVS examined the impact of a standardized, trauma-informed intervention for children, consisting of a clinical assessment, coordination of resources and advocacy, and a psycho-educational skills-building group. One year later, children in the intervention group had more positive self-identity, increased tools for building healthy relationships, and improved safety. These changes were particularly striking for children who had witnessed violence [32, 39].
- **Early indications suggest that TIC may have a positive effect on housing stability.** A multi-site study of TIC for homeless families found that, at 18 months, 88% of participants had either remained in Section 8 housing or moved to permanent housing [23]. An outreach and care coordination program that provided family-focused, integrated, trauma-informed care to homeless mothers in Massachusetts found that the program led to increased residential stability [38].
- **TIC may lead to a decrease in crisis-based services.** Some studies have found decreases in the use of intensive services such as hospitalization and crisis intervention following the implementation of trauma-informed care [40].
- **Trauma-informed, integrated services are cost-effective.** Because trauma-informed integrated services have improved outcomes but do not cost more than standard programming, they are judged to be cost-effective [41].
- **Qualitative results find that providers report positive outcomes in their organizations from**

implementing TIC. Providers report greater collaboration with consumers, enhanced skills, and a greater sense of self-efficacy among consumers, and more support from their agencies. Supervisors report more collaboration within and outside their agencies, improved staff morale, fewer negative events, and more effective services [40].

- **Qualitative results indicate that consumers respond well to TIC.** Within the D.C. Trauma Collaboration study, consumers reported an increased sense of safety, better collaboration with staff, and a more significant "voice." Eighty-four % of consumers rated their overall experience with these trauma-informed services using the highest rating available [42]. Survey results suggest that consumers were very satisfied with trauma-informed changes in service delivery [25].

These results reinforce the need for TIC, assist in further defining TIC, clarify the process of implementation, and suggest the efficacy of TIC for certain outcomes. However, in our review, we found that various questions were *not* addressed by available evidence. These gaps in the available evidence are important in highlighting the additional work that remains to be done to implement TIC in homelessness service settings.

Review of the Evidence: What Do We Not Know About TIC?

Our review of the literature highlighted several directions for future exploration:

1. Attitudes

- **Although providers and consumers alike generally pay lip service to the idea of TIC, we do not know the extent to which their attitude is influenced by demand.** In much of the research to date, providers and consumers were given brief questionnaires or were interviewed—in many cases, by the individuals working to build trauma-informed services. Thus, there may be a tendency to indicate support of implementation plans and strategies in the absence of true commitment.

2. Implementation

- **We do not know exactly what constitutes "trauma-informed care."** Trauma has become a buzz-word recently, with many agencies and workgroups noting the importance of becoming "trauma-informed." However, definitions of "trauma-informed" and how these ideas are implemented vary widely. There is generally a lack of specificity in how agencies are defining "trauma-informed," and how this relates to actual practice.
- **We do not have a clear method for measuring the degree to which a program is trauma-informed.** Because of the lack of definitions and behaviorally-defined changes signifying trauma-informed services, there is no consistent basis for identifying whether or not and to what degrees a program is trauma-informed.
- **We do not know how special populations respond to trauma-informed homelessness services.** Much of the evidence on trauma-informed homelessness systems concerns women and children. We know less about the response of other groups, such as men, veterans, individuals from ethnic/racial minorities or other cultures, and lesbian, gay, bisexual and transgendered (LGBT) individuals.

3. Outcomes

- **We do not know whether differences in outcomes are based on trauma-informed environments, trauma-specific interventions, or both.** Because many service settings that provide TIC also offer trauma-specific services, the extent to which each component contributes to change is difficult for research studies to determine.
- **We do not know whether trauma-informed services are effective specifically within homeless services.** Although the research in other fields suggests that trauma-informed services may be effective for homeless individuals, there have yet to be any rigorous, quantitative studies exploring outcomes within homelessness service settings. The results of the Homeless Families Program, a current multi-site evaluation of trauma-informed homelessness services, may begin to shed some light on this issue.

Our review of the current evidence suggests that TIC is an important area for further exploration. Initial feedback appears to support the assertion that TIC has a positive impact on both the process and outcome of service provision within homelessness service settings. However, the review highlighted as many questions and gaps as it defined results and conclusions.

Because the implementation of TIC within homelessness service settings is in its infancy, it is particularly important to review lessons from the field, including self-assessments and frameworks that are being developed to guide the paradigm shift to TIC, as well as feed back from local, regional, and national programs and initiatives that are implementing TIC. Lessons from the field highlight clinical insights, new practice initiatives, and areas in need of further qualitative and quantitative research.

Corroborative Evidence: Lessons from the Field on Building TIC in Homelessness Service Systems

When we look to the field for best practices and clinical wisdom, we find a wealth of information about current theories, practices, programming, and policy initiatives. This information tells us that although we do not yet have substantial outcome-based research supporting the effectiveness of TIC, there is considerable activity in the field that is awaiting additional documentation. Many homeless service systems are beginning to address this issue—administrators, providers, consultants, and consumers are working together to transform programs into environments that offer TIC.

After recognizing the pervasiveness of traumatic stress among people experiencing homelessness, various programs are taking steps to become more trauma-informed. We have

selected several case examples to describe the ways in which homeless service settings are striving to become more trauma-informed. This is not a comprehensive list of trauma-informed resources and programs. Instead, it is intended to illustrate various creative ways that programs are implementing trauma-informed models within homeless service systems, and some of the tools that are available to aid this transition.

Selected Promising Models

To foster the development of trauma-informed homeless service settings without reinventing the wheel within each individual program, innovators have developed frameworks and models that can serve as guides for implementing TIC. Various models have been proposed that support organizational change towards a model of TIC and that guide trauma-informed service delivery. Some of these models are:

- Attachment, Regulation, and Competency: A Comprehensive Framework for Intervention with Complexly Traumatized Youth (ARC) [43]
- Child Adult Relationship Enhancement (CARE)
- *A Long Journey Home* [44]
- Phoenix Rising [45]
- Sanctuary Model [46]
- Using Trauma Theory to Design Service Systems [12]

Table **2** describes each of these models, the applications of the models, and available evidence supporting their effectiveness. These models of TIC emphasize staff education, involving consumers, and transforming systems to be responsive to the needs of trauma survivors. Several models, including ARC, CARE, and Sanctuary, have an evidence base (e.g., outcomes-based quantitative research) in the mental health field (including inpatient and outpatient settings) and are considered to be promising practices in trauma-informed care [46]. Others, such as *A Long Journey Home* and Phoenix Rising, were developed specifically for homeless service settings. Most of these models have been implemented within homeless service settings, and process and outcome evaluation data are currently being collected.

HOW TRAUMA-INFORMED ARE WE? ORGANIZATIONAL SELF-ASSESSMENTS

The models described above highlight the need for a framework that provides the foundation for a paradigm shift within homelessness service systems. Once a model for TIC has been identified, an organizational self-assessment can be utilized as a starting point for systems change.

Self-assessment targets specific areas for change and indicates how a service delivery model might be adapted to an organization's unique needs. As the model is implemented, a self-assessment is a useful reminder about important aspects of trauma-informed care that facilitate self-monitoring and program evaluation. Organizational self-assessments can also be conducted after implementation of a paradigm shift in order to evaluate the effectiveness of the systems change.

Several trauma-informed organizational self-assessments are currently available or/are in development. They include:

- The Collaboration on Trauma-Surviving Homeless Children, a partnership between the National Center on Family Homelessness and the Trauma Center at Justice Resource Institute (JRI), has developed the ***Trauma-Informed Organizational Self-Assessment for Programs Serving Homeless Families*** [50] to help programs assess the degree to which their services are trauma-informed and to highlight areas for change. The self-assessment addresses organizational issues such as delineating program mission, guidelines, and policies; reviewing services and policies; establishing a safe and trauma-informed physical environment; respecting consumer needs and differences; protecting consumer privacy and information; encouraging internal and external community-building; and involving consumers in program development and evaluation. The instrument evaluates staff issues, including hiring practices, staff training and education, and supervision and support. It also assesses consumer issues, including procedures for arrival and intake; safety-planning and crisis prevention; goal setting; and availability of services, including trauma-specific interventions.
- The Trauma Center at JRI has developed the ***Trauma-Informed Facility Assessment*** [49], a brief instrument assessing the degree to which an organization's physical space is trauma-informed. This assessment defines several characteristics that are of primary importance for trauma-informed organizations, including physical safety, absence of triggering material, privacy/ confidentiality, and structure and predictable/consistent response. Other areas measured by the instrument include accessibility; organization and hygiene; the ability to meet the basic needs of consumers and provide links to resources; the availability of personal/quiet space; the communication of positive messages; and the creation of a sense of community, with consumer ownership of the space and the program.
- Community Connections has developed a ***Trauma-Informed Program Self-Assessment Scale and Planning Protocol*** [51]. This tool allows organizations to evaluate the degree to which program activities and settings are consistent with five guiding principles: safety, trustworthiness, choice, collaboration, and empowerment. Six major domains are evaluated, including: program procedures and settings; formal services policies; trauma screening, assessment, and service planning; administrative support for program-wide trauma-informed services; staff trauma training and education; and human-resource practices. Each domain is evaluated on the basis of review of program policies, standard program activities, review of physical space, staff ratings, and consumer ratings.
- As part of a larger study examining integrated trauma-informed treatment for women with

Table 2. Models of Trauma-Informed Care

Model	Developers	Description	Key Principles	Applications	Research Evidence	Strengths	Limitations
The ARC Model (Attachment, Self-Regulation, and Competency): A Comprehensive Framework for Intervention with Complexly Traumatized Youth	Kinniburgh and Blaustein [48]	• ARC is a flexible framework for intervention with children/families who have experienced complex trauma. ARC has been adapted for use within various milieus. • It has been applied within homeless settings for runaway and homeless youth.	• 10 building blocks, based on three basic principles: *Attachment, Regulation, and Competency*. • *Attachment:* Caregiver affect management, attunement, consistent responses, routines and rituals. • *Regulation:* Affect identification, modulation, and expression. • *Competency*: Executive functions, self-development & identity, & developmental tasks.	Therapeutic Procedures: • Psycho-education; • Relationship strengthening; • Social skills; • Parent-education training. • ARC principles adapted for use with homeless adolescents. • ARC Agency Inventory for homeless/ runaway youth has been developed.	• Pilot data: ARC is effective in outpatient settings. • Quasi-experimental research studies: conducted in outpatient and milieu settings in MI, IL, CA, AL, & MA. Outcomes: decreased trauma symptoms, PTSD, and internalizing/ externalizing symptoms. • ARC concepts-adapted for use in homeless settings but not yet been evaluated.	• Very strong theoretical basis. • Addresses developmental trauma. • Offers a comprehensive framework for milieu change; provides a model for trauma-specific interventions. • Well-defined, with an extensive manual and comprehensive training • NCTSN calls it a "promising practice" Collecting evidence on effectiveness at multiple sites.	• Although evaluated in multiple outpatient and milieu settings, it has yet to be formally evaluated in homeless settings.
CARE (Child Adult Relationship Enhancement)	Trauma Treatment Training Center (TTTC). Revised for homeless populations by NCFH & the Trauma Center.	• Trauma-informed modification of Parent Child Interaction Therapy (PCIT). • Skill-based model for use in milieu settings. • Being modified for homeless settings.	CARE guides caregivers in child-directed and parent-directed interactions: • Caretakers' competence in managing child's problematic behaviors; • Caretakers' competence reinforcing + behaviors; • Reduce parent-child conflict; and • Enhance positive parent-child interactions.	• Trauma education component. • Live coaching. • Practice of 3 P Skills (Praise, Paraphrase, and Point-Out Behavior) to guide parent-child interactions.	• CARE is empirically informed but has not yet been evaluated. • PCIT, the foundation for CARE, has been empirically supported by numerous studies. • Piloted in shelters	• Modified PCIT-Strong theoretical & research base • Effective for building + caregiver/child relationships & building caregiver competence. • NCTSN calls it a promising practice	• Limited scope in terms of systems change. • Does not yet have an evidence base within homelessness.
A Long Journey Home	Prescott, L. and NCFH [44]	A Guide for Creating Trauma-Informed Services for Homeless Mothers and Children	Offers guidance on: • Changing the environment • Trauma-informed policies and procedures • Trauma-informed services & support • Client representation & staff development • Training and supervision • Developing sustainability	• Guide offers concrete suggestions for organizational shift towards TIC • Includes concrete examples, exercises, & suggestions for staff training.	• In the final stages of development; has not been piloted in homeless service settings.	• Practical guide for making concrete changes within systems. • Developed specifically for trauma-informed systems change within homeless service settings.	• Still in development --does not yet have a research or practice evidence base.

(Table 2) contd…..

Model	Developers	Description	Key Principles	Applications	Research Evidence	Strengths	Limitations
Phoenix Rising	Youth on Fire and the Trauma Center at JRI	Phoenix Rising is an adaptation of ARC concepts for use with homeless adolescents and young adults.	Four main components: • Staff training & ongoing consultation • Trauma-informed milieu changes based on the Trauma-Informed Facility Self-Assessment [49] • Comprehensive Risk Counseling and Services • Group activities (expressive art therapies and community-building)	Designed for non-clinical staff in shelters for homeless youth. Offers guidance on: • Training and philosophy-shift; • Self-assessment • Organizational and physical space issues • Staff issues • Consumer issues (skill-building, development of a cohesive environment)	• Being piloted at a drop-in program for homeless adolescents and young adults in Cambridge, MA.	• Practical guidebook for concrete systems change. • Modification of a strong theoretical model (ARC) for use at a drop-in center for homeless youth.	Manual under development and being piloted in a homeless service system.
The Sanctuary Model	Bloom, S. [46]	• Framework for intervening with trauma survivors and facilitating organizational change. • Originally developed for traumatized adults in inpatient units, adapted for DV shelters.	• Culture of nonviolence. • Emotional intelligence. • Inquiry & social learning. • Shared governance. • Open communication. • Social responsibility. • Growth and change. Shared intervention language: SAGE (Safety, Affect Management, Grief, Emancipation) for adults, SELF (Safety, Emotions, Loss, Future) for children.	Concrete tools for intervention include: • Community meetings • Red flag reviews • Psychoeducation • Self-care planning • Safety plans • Team meetings • Treatment planning conferences	• Program evaluation within inpatient units: reduced PTSD symptoms & use of restraints/ seclusion, improved patient satisfaction, improved staff retention. • Additional pilot trials underway.	• Theoretical base. • Research evidence in multiple settings-inpatient and outpatient • NCTSN calls it a promising practice	• Although evaluated within multiple outpatient and milieu settings, it has yet to be formally evaluated in homeless settings.
Using Trauma Theory to Design Service Systems	Harris and Fallot [12]	• Short edited book describes trauma-informed systems & the application of trauma theory to systems change. Applies concepts to various settings, such as shelters. Forms guide systems change.	• Systems change approach. • Self-Assessment and Planning Protocol ensures that all levels of the organization have an understanding of trauma, its sequelae, and the impact of trauma in shaping a consumer's responses.	• Book describing the model: Using Trauma Theory to Design Service Systems • Trauma-Informed Self-Assessment and Planning Protocol. • Trauma-Informed Self-Assessment Scale • Implementation Form.	• Piloted in DC, ME, & CT. Most pilot projects within mental health & substance abuse settings. • Initial pilot project data: support for this model from organizations, staff, and consumers.	• Theoretical base. • Self-Assessment and Planning protocol offers concrete steps for intervention. • Training and consultation is available.	• Evidence base comes from unpublished pilot studies. • Not yet evidence on this model in homeless service settings.

co-occurring disorders, the W.E.L.L. Project of the Institute for Health and Recovery (IHR) developed a toolkit for developing trauma-informed organizations. This self-assessment tool, entitled ***Developing Trauma-informed Organizations: A Toolkit*** [52], includes principles of trauma-informed treatment, a self-assessment for provider organizations, and an organizational assessment for non-provider organizations.

Although these self-assessment tools—like the service delivery models—are still in development and refinement stages, they reflect advances towards the development of TIC.

INNOVATIVE PROGRAMS AND INITIATIVES UTILIZING TIC

The development of these models and self-assessment tools has facilitated the progress of a number of innovative

programs that are working to build TIC within homelessness service systems. We selected various programs that illustrate lessons from the field with diverse populations experiencing homelessness.

Trauma-Informed Family Shelters

- The *Collaboration on Trauma-Surviving Homeless Children*—a partnership among the National Center on Family Homelessness, the Trauma Center at Justice Resource Institute, and other agencies—has worked with various shelters within the Boston metropolitan area to build trauma-informed homeless services. Experts in trauma and homelessness worked jointly to develop trauma-based training and consultation targeted specifically to the needs of homeless families. Trauma training was offered to all levels of program staff, from administrators to clinical case managers to family advocates. Staff participated in regular trauma team meetings that focused on both trauma-informed organizational change and trauma-focused case consultation. Trauma-informed programming was also instituted within shelter settings. This included community-building activities, an expressive music program, and self-care activities for residents. The goal of this program was to increase the staff's knowledge of traumatic stress, their skill level in responding to trauma-related issues, their self-efficacy about working with individuals and families who have been traumatized, and their awareness of issues related to vicarious trauma and burnout, and self-care. Initial evaluation results indicated positive outcomes, with high levels of support for the organizational shift to trauma-informed programming, increased staff confidence, fewer resident conflicts, better relationships among staff and residents, and fewer resident terminations.

Trauma-Informed Domestic Violence Shelters

- The *Domestic Violence (DV) and Mental Health Policy Initiative* in Chicago is working with the Department of Public Health, the Mayors Office, and several domestic violence shelters to create three "Centers of Excellence" for trauma and domestic violence. This pilot program will evaluate changes among organizations, providers, and survivors. The initiative is also developing a DV-Trauma Core Curriculum to assist providers in offering more trauma-informed services within domestic violence programs.

Trauma-Informed Homeless Outreach Programs

- *The Women's Violence Prevention Project Alliance* at the Friends of the Shattuck shelter in Boston is an outreach program for homeless men and women that is working towards becoming more trauma-informed. This program developed a manual to help providers and outreach workers build their understanding of trauma and learn how to respond appropriately to survivors. The manual also includes a safety-planning guide for use with individuals who are living on the streets.

Trauma-Informed Programs for Homeless Youth

- *Youth on Fire* is a drop-in center for homeless adolescents and young adults in Cambridge, Massachusetts. This program utilizes the Phoenix Rising model, an adaptation of ARC (Attachment, Self-regulation, and Competency model) for homeless and at-risk youth. Program staff members have received trauma training and continue to receive trauma consultation from the Trauma Center at Justice Resource Institute. They are working to modify their environment to become more trauma-informed. This program also offers trauma-specific group interventions.
- The *Community Trauma Treatment for Runaway and Homeless Youth* is a partnership among several agencies in the Los Angeles area that provides outreach and services to homeless youth. This program has utilized the ARC model to institute a philosophical shift towards becoming trauma-informed. They developed an ARC-based organizational self-assessment in order to target areas for change within participating agencies. They have also instituted trauma-informed case conference meetings in which ARC concepts are used for case review. Trauma-specific interventions have also been instituted within this program.
- *The Homeless Children's Network* is a consortium of fifteen homeless and domestic violence programs in San Francisco, California. This program provides therapy and case management to homeless children and their families. Their theoretical framework considers homelessness to be a traumatic stressor for children.

Trauma-Informed Treatment Programs for Homeless People with Co-Occurring Mental Health and Substance Use Problems

- The *Seeking Treatment and Recovery (STAR) Program* in Florida provides treatment for homeless people who are suffering from co-occurring mental illness and substance abuse. After determining that 79.5% of the homeless individuals served by their program acknowledged a history of physical or sexual abuse, this program began to make changes to become more trauma-informed. The program instituted a formal process of screening for trauma exposure. Based on the high level of trauma exposure reported by men, they expanded the trauma-specific services to include treatment for male survivors. The program also incorporated various training activities to raise trauma awareness and to build trauma-informed services [28].

Programs Utilizing a Trauma Framework for Veterans

- *Mary E. Walker House* is a transitional-living program for homeless women veterans in Coatesville, Pennsylvania, that focuses on recovery from trauma and substance abuse. This program includes a trauma framework and also offers trauma-specific services.

- The *Renew program* is a V.A. program in Long Beach, California, which serves both homeless and non-homeless women veterans who have experienced military sexual trauma, and often pre-military sexual trauma.
- *New Directions* is a V.A. program in Los Angeles, California, that offers substance abuse and mental health treatment utilizing a trauma framework. Its Women's Program offers trauma counseling, with 100% of clients reporting abuse. The Executive Director noted, "Most of our clients have experienced multiple traumas, including physical trauma as a child, military trauma and years of abuse on the streets and in prisons. Since veterans are known to have a higher degree of trauma than the general public, it would be most cost effective to begin to *treat trauma as the core disability* rather than separate and apart from all other symptoms" [53].

These program examples illustrate the beginning of a paradigm shift in which homeless services sites are recognizing the central role of trauma in the lives of consumers. These programs are being implemented in diverse settings including family-based shelters, domestic violence programs, outreach programs, dual diagnosis programs for homeless individuals, and programs for homeless youth and veterans. However, this shift is only beginning. Many programs do not yet recognize the central role of trauma. Guidance from state and federal initiatives is likely to facilitate broader awareness of the need for TIC within behavioral health systems and, more specifically, within homelessness services settings.

SELECTED STATE AND FEDERAL INITIATIVES TO ESTABLISH TIC

Over the past ten years, various state and federal policies have focused on the importance of establishing trauma-informed services within mental health and substance abuse settings. In 1998, the National Association of State Mental Health Program Directors (NASMHPD) issued a position statement on services and supports for trauma survivors, recognizing that "the psychological effects of violence and trauma in our society are pervasive, highly disabling, yet largely ignored." The statement articulated a commitment to address the issue of trauma. The report, *Models for Developing Trauma-Informed Behavioral Health Systems and Trauma-Specific Services,* defined "trauma-informed" and described programs that have implemented trauma-informed models on a statewide or local level [54]. NASMHPD also developed a Trauma Services Implementation Toolkit for State Mental Health Agencies [42] that describes products being used by various state agencies to work towards building trauma-informed systems. Although these policy documents are not directed towards homeless service systems, they provided momentum in the social-services fields towards incorporating knowledge of trauma into service systems.

Regional and national initiatives regarding the need for TIC within the homelessness field are even more recent. Within the past ten years, a number of homeless service organizations and coalitions have begun to emphasize the importance of addressing the impact of trauma among individuals experiencing homelessness, and several training and technical assistance centers have emerged that are actively promoting trauma-informed homelessness services.

The ***Homelessness Resource Center*** (HRC), a SAMHSA-funded program, provides resources, training, and technical assistance on issues affecting people who are homeless. Its mission is to improve the lives of people who are homeless and have been impacted by trauma, substance abuse, and mental health issues. One of HRC's guiding principles is to foster trauma-informed recovery systems. Through its website, the HRC disseminates tips, tools, and knowledge-based products that can be used by programs interested in implementing trauma-informed care. See www.homeless.samhsa.gov.

The ***National Center for Trauma-Informed Care***, funded by SAMHSA's Center for Mental Health Services (CMHS), offers educational materials, technical assistance, and training to social services systems to build an understanding of the impact of trauma and effective trauma-based interventions. In collaboration with the Homelessness Resource Center, the National Center for Trauma-Informed Care offers trauma-informed training to providers in the Gulf Coast recovery area. In addition, training in trauma-informed care has been offered to Projects for Assistance in Transition from Homelessness (PATH) programs.

The ***National Child Traumatic Stress Network*** (NCTSN), another SAMHSA-supported program, has focused on the impact of traumatic stress in the lives of children. The Network has been active in promoting trauma-informed care, including trauma awareness within homeless service settings for youth. ***The Homelessness and Extreme Poverty Working Group*** is a branch of NCTSN that devotes itself to the intersection of trauma, poverty, and homelessness in children.

The ***Department of Veterans Affairs*** offers specialized services to homeless veterans, and is increasingly addressing sexual trauma among female veterans. However, the ***National Coalition for Homeless Veterans*** noted that "with greater numbers of women in combat operations, along with increased identification of and a greater emphasis on care for victims of sexual assault and trauma, new and more comprehensive services are needed." The Coalition's 2007 public policy priorities include increasing homeless veterans' access to comprehensive, high-quality and affordable health care, including substance abuse and mental health care. Limitations still exist in the VA's policy on trauma-informed care for homeless veterans, particularly around the treatment of trauma (not necessarily combat-related) among male veterans.

The work of these initiatives has been integral to raising awareness of the need for trauma-informed homeless service systems. However, a large gap still remains between the recognition of trauma and the implementation of programs and policies that ensure available and accessible trauma-informed care for homeless individuals and families. Further advances in practice, programming, policy, and research are needed to develop evidence-based, trauma-informed care within homeless services across the country.

DISCUSSION

Our review of the current evidence suggested that, while there are challenges to implementing trauma-informed services, Trauma-Informed Care appears to be effective. We can conclude from research in other fields that, with necessary buy-in, TIC is well-received by consumers and providers, most likely leads to better outcomes, and does not cost significantly more than treatment as usual. Despite these promising findings, this review also highlighted what we *do not* yet know about TIC within homelessness services settings. There is a dearth of research on trauma-informed approaches specifically within homeless service settings. Most organizations that are working towards building trauma-informed homelessness service settings are collecting minimal or no information for evaluation purposes. The Homeless Families Program, a large quasi-experimental study examining trauma-informed services within homeless services, is an exception.

Initiated by the Substance Abuse and Mental Health Services Administration (SAMSHA) in 1999, the Homeless Families Program is the first large research study to examine integrated, trauma-informed care for homeless families with psychiatric disorders, substance use problems, and trauma histories. Each of the eight sites focuses on helping consumers understand the connection between their own trauma histories and their current issues; this education lays the groundwork for assisting consumers in developing new coping strategies and working to improve their parenting skills and relationships. The program also focuses on staff issues, including team-building, staff support, and self-care.

Although evaluation of the Homeless Families Program is still in progress, and final results are not yet available, preliminary findings have identified several factors that seem to be important for implementing trauma-informed services: 1) the trauma intervention approach should fit into the overall model and philosophy of the program; 2) programs should utilize strengths-based approaches in working with trauma survivors; 3) programs should encourage mutual respect and trustworthy behavior (e.g., following through on commitments); 4) programs should avoid punitive approaches, limiting rules and regulations to those ensuring safety; 5) staff should be encouraged to have realistic expectations about the progress that can be expected; 6) programs should engage survivors in the process of helping others (e.g., normalizing, empathizing, assisting, allowing transformative experiences); and 7) programs should maintain a nonjudgmental approach, while encouraging personal responsibility and the possibility of making better choices [55].

Clearly, although initial investigations are promising, the research to date is inadequate for evaluating the effectiveness of trauma-informed models within homeless service settings. Additional quantitative and qualitative research is needed to further explore trauma-informed practices specifically within homeless service settings. This research can be used to establish empirically-based best practices and will be the springboard for policy that can drive systems change in programs nationwide. Because the field is only beginning to generate research-based evidence on trauma-informed homelessness services, we have looked to the field for best practices and clinical wisdom in developing and implementing trauma-informed theories and practices.

RECOMMENDATIONS

This review documents the high rates of traumatic stress among people who experience homelessness and supports the need for developing trauma-informed services. While considerable progress has been made in increasing awareness of the impact of traumatic stress, the implementation of a widespread system of trauma-informed homeless services is in its early stages. Although this review highlights various innovative practices and programs that have been created in a wide array of settings for various subgroups of homeless people, they are relatively limited given the enormous need. Many program strategies and models are still being developed and piloted. Preliminary feedback from the homelessness arena and other service settings suggests that these approaches may be effective in producing better outcomes and promoting systems change. However, the evidence base supporting the effectiveness of these practices and programs is largely drawn from the corroborative literature.

The research base supporting the effectiveness of trauma-informed services within homeless settings is limited. Over the past decade, trauma-informed services have begun to be implemented in other fields, including mental health and substance use programs. With this implementation has come some robust quantitative and qualitative research. Quantitative research from these fields indicates that trauma-informed services are associated with improved outcomes, such as decreased mental health, trauma-related, and substance abuse symptoms and behaviors. Qualitative research from these fields has better described the meaning of trauma-informed care and has found that its implementation can be a challenging process, but that it can lead to systems changes that have positive impacts on both providers and consumers. Findings from these studies can inform best practices within the homelessness field.

Even with significant limitations in the research literature, we have learned important lessons about how we can best move ahead to make the homelessness service system more trauma-informed.

Practice

Despite the prevalence of trauma among individuals experiencing homelessness, many homeless service systems are not yet adequately addressing this issue. Greater uniformity and consistency of trauma-informed services for homeless individuals will aid in our understanding of the effectiveness of those practices.

Practice recommendations for building trauma-informed homeless services include the following:

1. Although a number of homeless services settings may be beginning to implement trauma-informed services, there is great variability in how these services are implemented. *Utilization of a theory-based model or framework* would help to ensure consistency across sites and help to begin to build evidence-based practices.

2. Programs should strive to *avoid any practices that may be retraumatizing.* This applies to all levels of the system, including administrative, provider, and consumer levels.

3. Homeless service systems should implement *universal systematic screening for trauma histories*, using standardized measures.

4. Program intake and evaluation should include an *assessment of consumer strengths and resources*. This contributes to the development of a strengths-based model and supports the further development of coping resources.

5. Because research has found that integration of services is a key factor in improving outcomes, it is recommended that *substance abuse, mental health, and trauma services be integrated*.

6. Programs implementing integrated trauma-informed treatment approaches should also include *trauma-informed services for children*, in order to increase resiliency in children and youth.

7. Because the majority of consumers in homeless service settings are trauma survivors, additional *trauma-specific services* should be made available for consumers who wish to receive targeted treatment.

8. Building on empowerment-based trauma theories emphasizing the importance of actively participating in service programs and rebuilding a sense of control, programs should support and encourage *consumer involvement*. Examples of consumer involvement include active goal-setting and crisis planning, peer-led services, leadership roles for consumers, and involvement in program design, evaluation, and refinement.

9. All trauma-informed services should be *culturally and linguistically competent.*

Programming

Our review of the theory, study, and practice of trauma-informed services underscored six steps that are essential when implementing a trauma-informed model, including:

1. Obtaining "buy-in" at multiple levels within the system

2. Conducting a needs assessment to identify areas for change

3. Reviewing the organization's environment, procedures, and services and revising them to become more aligned with the principles of trauma-informed care

4. Providing training on trauma

5. Offering ongoing trauma-based consultation and supervision

6. Providing access to trauma-specific interventions

These principles and implementation strategies are a starting point for any program wishing to implement trauma-informed services.

Beyond offering services that have a trauma-based framework, programming efforts are needed to establish agency-wide commitment to building trauma-informed services. Programming builds continuity among providers to establish the overall shift in program philosophy necessary for building trauma-informed services.

1. Homeless programs should integrate trauma awareness and responsiveness into their *program missions*.

2. There is a need to *operationalize the principles* of trauma-informed services, and to link these principles to quantitative, measurable changes that can be tracked and evaluated.

3. Guidelines should be developed for implementing a *trauma-informed model or framework* in homeless service settings.

4. Programs working for larger systems change towards a trauma-informed model should start with an *organizational self-assessment* in order to identify strengths and target areas for change.

5. Organizations should institute regular *internal and/or external reviews* to assess the degree to which their programs are trauma-informed.

6. Despite the fact that they work with trauma survivors on a daily basis, most staff members within homeless services are not trained about the impact of trauma or strategies for working with trauma survivors. Homeless services should implement *standardized training on understanding traumatic stress and working with trauma survivors*. Because these concepts are complex and cannot be adequately covered in one training, regular follow-up trainings should be offered.

7. A *consultation model* that is ongoing and responsive to specific needs should be utilized to reinforce concepts learned in trainings, as well as to help providers apply what they have learned to actual situations in their service settings.

8. *Regular supervision* should be offered in order to assist staff members in understanding the impact of trauma in particular situations, and to aid staff in recognizing and managing their own reactions.

9. Homeless services should design *trauma-informed environments*, including attention to issues of physical space, triggering materials, privacy/ confidentiality, and structure/ predictability.

10. *Policies and protocols* should be reviewed to ensure that they are consistent with a trauma-informed model and are not inadvertently retraumatizing.

11. Homeless service organizations should be *aware of and responsive to issues of job stress, burnout, and vicarious trauma* in providers. Programs need to have structures in place for prevention of, and early intervention for, vicarious trauma. In terms of prevention, it is recommended that organizations institute policies, programs, or activities that encourage *staff self-care and support*.

12. *Consumer involvement* is an integral part of a trauma-informed system. It is recommended that consumers of homeless services participate as active members in program development, operation, and evaluation. Some possibilities for this involvement include: *Town Hall meetings, consumer advisory boards, and peer-led groups*. Prescott [22] offers guidelines for integrating consumers into trauma-informed programs.

13. Services and programs should *promote cultural diversity and competency*.

Policy

The evidence on trauma-informed services in homeless settings is limited and there is a lack of clearly defined principles, definitions, and methods for establishing trauma-informed services. More research is needed to evaluate the process of developing trauma-informed services and to evaluate the effectiveness of trauma-informed services for homeless individuals. State and federal funding should be appropriated for examining evidence for trauma-informed interventions. The National Association of State Mental Health Program Directors (NASMHPD) has taken a first step in this direction by recommending that states establish financing criteria and mechanisms for funding best-practice trauma treatment models and services. However, these policy efforts should be expanded to include federal and local funding, and to include a focus on homeless service settings.

The current review of trauma-informed homeless services suggests a number of policies whose adoption is necessary to move the field further:

1. Policies should support homeless services that employ strategies to *prevent trauma exposure*, including the elimination of practices that are retraumatizing.

2. Policies should support increased capacity for *early detection of trauma* within homeless service settings.

3. *Mainstream services should be available and accessible* to individuals experiencing homelessness and should be responsive to the needs of trauma survivors.

4. Policies should guide the development and offering of *comprehensive, integrated, trauma-informed treatment* within homeless service settings.

5. Policies should prescribe and define *consumer involvement* in developing and evaluating homeless services.

6. Policies should ensure that *funding is available to develop and sustain trauma-informed care*.

7. Policies should ensure that services are designed to be *developmentally-appropriate*, and *culturally and linguistically competent*.

8. Trauma-informed homeless service policies need to be supported by larger systems guiding services for homeless individuals and families, including national, state, and local governmental, community-based groups, and non-profit organizations. Some of these systems include: the *U.S. Department of Health and Human Services, the U.S. Department of Veterans Affairs, the U.S. Departments of Housing and Urban Development, the U.S. Interagency Council on Homelessness, state-level councils to end homelessness, the National Alliance to End Homelessness, the National Health Care for the Homeless Council, the National Law Center on Homelessness and Poverty, the National Center on Family Homelessness*, and *the Homelessness Resource Center*.

Research

There is a paucity of research examining the effectiveness of trauma-informed services for homeless individuals and families. Most programs that have begun to institute trauma-informed practices have not tested their models for effectiveness. This may be due to financial constraints and to the fact that many programs are focused on direct service, as opposed to research.

1. Although research on trauma-informed services in the mental health and substance use fields is promising, *further research is needed on developing trauma-informed services within homeless service settings.*

2. Researchers and providers need to establish a *greater consensus about what constitutes a "trauma-informed service system."* Clearly defining what is meant by a "trauma-informed system" will create greater uniformity in research, increasing the ability to compare strategies for implementing trauma-informed systems.

3. *Methods to achieve trauma-informed systems* also need to be more clearly established. The conceptual framework established by a set of guiding principles should be behaviorally defined within a system. This allows fidelity measurements, indicating the degree to which a program is meeting the general standards for a trauma-informed program. Clearly defining methods will also lead to the possibility of a classification system delineating *varying levels of trauma-informed systems*.

4. Although a number of models or frameworks for building trauma-informed services have been developed, more evidence is needed to evaluate and refine these approaches. Thus, additional research is needed to *evaluate trauma-informed models* within homeless settings. It is recommended that additional research within the homelessness arena be conducted using models such as ARC, CARE, A Long Journey Home, Sanctuary, and Using Trauma Theory to Design Service Systems.

5. The *corroborative evidence* that is available offers a clear starting point for future research on trauma-informed homeless services. Additional *qualitative research* is needed to more clearly define the process of offering trauma-informed services, while *quantitative studies* should follow after models have been clearly defined and described. These should examine the outcomes of trauma-informed interventions.

6. Additional research is needed to distinguish the *relative contribution of trauma-informed care, versus trauma-specific services*. The majority of the research to date on trauma-informed care has also included trauma-specific services. While clinically this makes intuitive sense, research is needed to evaluate what specific factors are leading to change within these systems.

7. Additional research is required on the needs of *special populations* who are homeless. For instance, additional research is needed to determine how trauma-informed care should be adapted to meet the unique issues faced by youth, veterans, individuals from other countries, individuals of different ethnic backgrounds, and LGBT individuals who are experiencing homelessness.

Trauma-informed homeless services offer a promising new area for increasingly effective and sensitive service approaches for highly vulnerable people. Because many, if not all, homeless individuals have been exposed to high levels of traumatic stress, it is essential that homeless service systems develop sensitivity and responsiveness to post-trauma responses among the people they serve. More efforts are needed in terms of practice, programming, policy, and research to continue to build empirically-based, effective models of trauma-informed care for people who are struggling daily to exit homelessness.

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CONFLICT OF INTEREST

Authors work within organizations that developed some of the models reviewed (e.g. organizational assessments, ARC model, Phoenix Rising).

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APPENDIX 1

Traumatic Stress and Homelessness

> "*Homelessness deprives individuals of…basic needs, exposing them to risky, unpredictable environments. In short, homelessness is more than the absence of physical shelter, it is a stress-filled, dehumanizing, dangerous circumstance in which individuals are at high risk of being witness to or victims of a wide range of violent events*" [1].

Researchers have documented that the rates of traumatic stress are extremely high, and may even be normative, among those experiencing homelessness. Individuals who are homeless may have been exposed to neglect, psychological abuse, physical abuse, or sexual abuse during childhood; community violence; sexual assault; combat-related traumas; domestic violence; and accidents or disasters. A literature review found consistent and well-documented evidence of high levels of multiple forms of traumatic stress within individuals and families who are homeless. It is clear that trauma affects people of every gender, age, race, sexual orientation, and background within homeless service settings. No one is immune. The following data highlight this point:

Men

- More than 2/3 of men in a dual-diagnosis treatment program for homeless people reported a *history of trauma -- either physical or sexual abuse* [28].
- More than 1/4 of homeless men were *assaulted in the past year* [56].
- Homeless men within substance treatment programs have a high prevalence of *depression, family dysfunction, trauma, and multiple previous treatment experiences* [57].
- Despite the fact that men comprise the majority of homeless people and are frequently exposed to trauma, homeless men are *less likely to receive social services* than homeless women [58], with less effort directed towards understanding the impact of trauma for this population.

Women/Mothers

- Although many people think of men when they consider the issue of homelessness, families—typically single mothers with young children—now comprise up to 40% of the overall homeless population [59].
- Trauma is extremely prevalent among homeless women: *over 90% of homeless mothers report having experienced severe physical or sexual assault* during their lifetimes [60].
- The majority of homeless mothers were *abused during childhood*, with nearly 2/3 reporting severe physical abuse and 42% reporting sexual abuse; 60% were abused before the age of twelve [2].
- More than 70% of homeless mothers have at least one *childhood risk factor*, including: severe physical abuse, unwanted sexual contact, having a parent who was mentally ill or who abused substances, running away for a week or more, or being in foster care [61].
- Homeless mothers are also frequently the *victims of abuse during adulthood*, with 61% reporting a history of domestic violence and 32% acknowledging recent domestic violence [2].
- Homelessness puts women *at risk for assault*; being homeless was associated with more than three times the risk of sexual assault for women [56].
- Homelessness and victimization are associated with adverse mental health outcomes: more than 50% of homeless mothers reported *depression*, and more than 40% reported *posttraumatic stress disorder* (PTSD)

[62], and were three times as likely as housed women to suffer from PTSD [63].

Children and Youth

- *Child abuse* is associated with high-risk behaviors in adolescents, such as truancy and running away, that may lead to homelessness [64]. Almost 3/4 of girls on the streets report that they were *forced to run away from violence at home* [65].
- Homeless children and youth are *at risk for further victimization*, such as repeated abuse, exposure to violence, and forced prostitution [66].
- *86% of homeless youth report exposure to trauma*, with almost 2/3 reporting exposure to multiple traumatic events; physical assaults are prevalent for young men, while sexual/physical abuse is common among young women [67].
- Homeless children are at increased risk for *medical, emotional, behavioral, and academic problems*, including post-trauma responses, insecure attachments, and difficulty learning [60, 68, 69].

Elderly

- The elderly make up a relatively lower percentage of the homeless population, only 2% [70]; however, elderly homeless persons are *more vulnerable to victimization*, have *more health problems*, and may be *less likely to receive needed social services and protection from law enforcement* [71].
- In 2006, 27% of the homeless victims of violent crimes were between 50-59 years of age [9].

Veterans

- Veterans are disproportionately represented in the homeless population, with veterans making up 23% of all homeless people in the U.S. [72].
- The *majority of women in homeless veteran programs have serious trauma histories*, including being physically harassed, sexually harassed, or raped while in the military [73].
- One-quarter or more of homeless veterans manifest *symptoms of PTSD*; 76% experience *alcohol, drug, or mental health problems* [74].
- *Trauma and related distress are related to relapse and rehospitalization* of homeless veterans who have substance abuse problems, particularly for female veterans [75].

Minorities

- *Minorities are over-represented* among the homeless population, with almost half being African-American [4].
- Families of color also *disproportionately experience trauma* [50].

Lesbian, Gay, Bisexual, & Transgendered (LGBT) Individuals

- 40% of homeless youth identify as LGBT.
- One-third of LGBT youth are *assaulted after disclosing their sexual orientation*; 40% to 60% of homeless youth cited *physical abuse as a reason for leaving home* [76].
- Thirty-three percent of transgendered individuals reported that they had been *physically or sexually assaulted in the past year* [56].

These statistics suggest that it is reasonable to assume that the majority of homeless individuals have been exposed to traumatic stress. Most people experiencing homelessness have been victimized one or more times in their lives. For many people, abuse began during childhood; in fact, developmental trauma with disrupted attachments may provide the subtext for the stories of many people's pathways towards homelessness [2]. Violence continues into adulthood for many people, with abuse such as domestic violence often precipitating homelessness [3-5], and with homelessness leaving people vulnerable to further victimization. In fact, homelessness has been suggested to be a traumatic event in and of it, compounding the psychological impact of the myriad risk factors often experienced by people who are homeless [77]. Based on this assumption, we can conclude that individuals experiencing homelessness are, by definition, trauma survivors, demonstrating the urgency of addressing trauma within this population.

Another reason that it is important to address trauma within homelessness service settings is that victimization is associated with repeated episodes of homelessness. Research has found that people who experienced repeated homelessness were more likely than people with a single episode of homelessness to have been abused, often during childhood. First-time homeless mothers who experienced domestic violence were more than three times as likely to become homeless again [6]. These findings suggest that we will be unable to solve the issue of homelessness without addressing the underlying trauma that is so intricately interwoven with the experience of homelessness.

As can be seen from this description, the relationship between trauma and homelessness is complex, with traumatic stress being a possible core factor increasing vulnerability to homelessness, and with homelessness leaving individuals more vulnerable to further victimization. There is also a complex and multi-directional relationship between trauma, substance abuse, mental illness, and homelessness. All these factors need to be addressed in services for homeless men, women, children and youth, the elderly, minorities, veterans, LGBT individuals, and other people.

APPENDIX 2

The Impact of Trauma

Traumatic stress can be devastating and long-lasting. To develop an understanding about how to build trauma-sensitive services, we need to first clearly understand that the impact of traumatic stress can be devastating and long-lasting, interfering with a person's sense of self, and sense of safety, leading to feelings of helplessness, terror, and disempowerment. Traumatic exposure may lead to responses

Table 3. How Common Trauma Reactions May Explain Some "Difficult" Behaviors or Reactions Within Homeless Service Settings

"Difficult" Behaviors or Reactions within Homeless Service Settings	Common Trauma Reactions
Has difficulty getting motivated to get job training, pursue education, locate a job, or find housing	Depression and diminished interest in everyday activities
Complains that the setting is not comfortable or not safe, appears tired and poorly rested. Is up roaming around at night.	Nightmares and insomnia
Perceives others as being abusive, loses touch with current-day reality and feels like the trauma is happening over again	Flashbacks, triggered responses
Avoids meetings with counselors or other support staff, emotionally shuts down when faced with traumatic reminders	Avoidance of traumatic memories or reminders
Isolates within the shelter, stays away from other residents and staff	Feeling detached from others
Lacks awareness of emotional responses, does not emotionally respond to others	Emotional numbing or restricted range of feelings
Is alert for signs of danger, appears to be tense and nervous	Hyper-alertness or hypervigilance
Has interpersonal conflicts within the shelter, appears agitated	Irritability, restlessness, outbursts of anger or rage
Has difficulty keeping up in educational settings or job training programs	Difficulty concentrating or remembering
Becomes agitated within the shelter. Is triggered by rules and consequences. Has difficulty setting limits with children.	Feeling unsafe, helpless, and out of control
Has difficulty following rules and guidelines within the shelter or in other settings. Is triggered when dealing with authorities. Will not accept help from others.	Increased need for control
Feels emotionally "out of control." Staff and other residents become frustrated by not being able to predict how he or she will respond emotionally	Affect dysregulation (emotional swings – like crying and then laughing)
Seems spacey or "out of it." Has difficulty remembering whether or not they have done something. Is not responsive to external situations.	Dissociation
Complains of aches and pains like headaches, stomachaches, backaches. Becomes ill frequently.	Psychosomatic symptoms, impaired immune system
Cuts off from family, friends, and other sources of support	Feelings of shame and self-blame
Has difficulty trusting staff members; feels targeted by others. Does not form close relationships in the service setting.	Difficulty trusting and/or feelings of betrayal
Complains that the system is unfair, that they are being targeted or unfairly blamed	Loss of a sense of order or fairness in the world
Puts less effort into trying--does not follow through on appointments, does not respond to assistance	Learned helplessness
Invades others' personal space or lacks awareness of when others are invading their personal space	Boundary issues
Has ongoing substance abuse problems	Use of alcohol or drugs to manage emotional responses
Remains in an abusive relationship or is victimized again and again	Revictimization (impaired ability to identify danger signs)

including Posttraumatic Stress Disorder (PTSD) and Complex Trauma.

Posttraumatic Stress Disorder (PTSD) refers to a group of symptoms that some individuals experience after overwhelming, frightening, or horrifying life experiences that exceed their capacity to cope. PTSD includes intrusive symptoms such as triggered memories or nightmares, avoidance symptoms such as social withdrawal, constriction, and emotional numbing, and symptoms of hyperarousal such as concentration problems, irritability, and constant alertness for danger.

Exposure to chronic interpersonal trauma such as child abuse or domestic violence may have an even more extensive impact on the survivor, sometimes referred to as "Complex PTSD," or "Disorders of Extreme Stress, Not Otherwise Specified" (DES-NOS). Survivors with Complex PTSD have difficulty regulating their internal states, including their emotional states and their physiological reactions. Their emotions sometimes shift rapidly, leaving them feeling helpless in the face of overwhelming emotion. Their bodies are easily activated, resulting in anxiety, panic, or terror. At other times, they have dissociative responses in which their bodies or emotions shut down and they become numb. Triggered responses, reactions to reminders of the trauma, are also common. In Complex PTSD, the traumatic experiences impact the survivor's sense of self; survivors often blame themselves for their abuse, feeling damaged and ashamed. Individuals who have experienced chronic interpersonal trauma often have problems sustaining supportive relationships, such as difficulty trusting others or problems establishing clear boundaries and setting limits with others. This increases their vulnerability to retraumatization, and interferes with the development of adequate social networks for support in times of crisis. Individuals with Complex PTSD may have impaired

immune system functioning and may experience poor physical health. They often have difficulty maintaining attention and concentration and may have memory problems. Their belief systems about the world are also altered and they often feel unsafe [78-80].

In describing the link between trauma exposure and homelessness, Browne [2] wrote, "it seems probable that, for some homeless women, the effects of early violence or molestation by intimates decreased their supportive networks and increased their risk of becoming homeless later in life." Thus, exposure to traumatic stress may increase people's vulnerability to becoming homeless in certain situations, and conversely, traumatic stress reactions may make it more difficult to cope with the stresses inherent in being homeless.

Homeless service providers who lack a basic knowledge of trauma will not have a context for understanding trauma-based reactions. Table **3** illustrates behaviors sometimes seen in homeless service settings that can be confusing or frustrating for providers or other consumers; column two of the chart demonstrates how each of these behaviors may be explained in the context of common reactions to traumatic stress. This chart highlights the need for understanding trauma within homeless service settings.

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An Introduction to Trauma Informed Care

Creating Physically and Emotionally Safe Environments for Clients, Families and Staff

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Holly Murphy, MN, RN BScN, CPMHN(c), Clinical Project Leader for Trauma Informed Care

Sue McWilliam, PhD, Evaluation and Research Leader for TIC

Trauma Informed Care Launch

February 3,4,5, 2016

IWK Health Centre

Welcome and Agenda

- Welcome! Thank you for attending!
- Introduction to Trauma Informed Care
- Creating Cultures of Trauma Informed Care
- Break
- Staff Support in Human Service Settings: An Essential Element of Trauma Informed Programs
- Moving Toward Becoming a Trauma Informed Organization
- Logo and Website Launch

Purpose of Today's Session

- To provide foundational information about Trauma Informed Care (TIC) and associated staff support as we start our 3-5 year journey toward becoming a trauma informed organization.

Objectives

- To introduce you to the key concepts and principles of trauma and trauma informed care.
- To discuss how to create a culture of trauma informed care.
- To discuss how organizations can support staff experiencing stress, burnout, and/or vicarious trauma.
- To describe specific ways in which organizational responses, professional responses and personal responses contribute to a psychologically safe and healthy workplace.
- To describe the IWK's process/plan toward becoming trauma informed.

Types of Stress

- **Positive stress**
- **Tolerable stress**
- **Toxic stress**

What is trauma?

- Definition

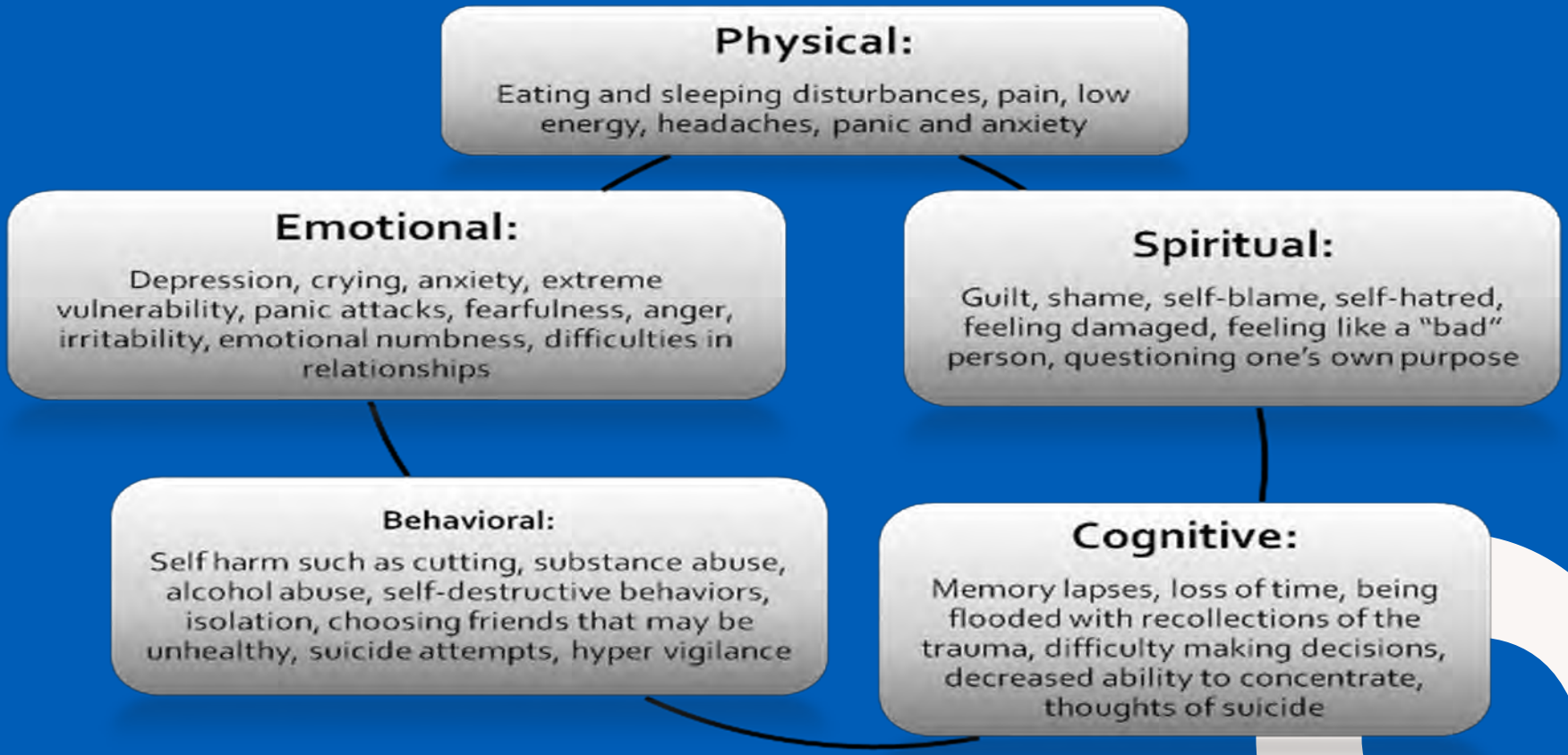
  Trauma can be anything that results from experiences that overwhelm an individual's capacity to cope. Trauma can result from abuse and neglect, family conflict, poverty, having a life-threatening illness, undergoing repeated and/or painful medical interventions, accidents, witnessing acts of violence, grief and loss, intergenerational events, etc.

  (Adapted from BC MHSU, 2013)

Some Different Types of Trauma

- **Acute trauma**
- **Repetitive trauma**
- **Complex trauma**
- **Complex Developmental trauma**
- **Vicarious trauma**
- **Cultural, historical and/or**
  Intergenerational trauma

Effects of Trauma



(Figure taken from N. Poole, Building a Trauma-Informed Practice Framework, 2014).

Resiliency and Recovery

"In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways."

Resilience Research Centre. Retrieved from: resilienceresearch.org (See also Ungar, 2008 and Ungar, 2011).

Resiliency and Recovery

https://www.youtube.com/watch?v=cqO7YoMsccU

Center on the Developing Child. Harvard University. Retrieved with permission from http://developingchild.harvard.edu/science/key-concepts/resilience/

How Common is Trauma?

- A large body of research estimates that between 55-90% of the population has experienced one or more forms of trauma in their lives (CDC & Kaiser Permanente, 1995-2011; Harris & Fallot, 2009; Farro et al., 2011).

- In a Canadian study, 76% of participants identified being exposed to at least 1 traumatic event in their lifetime (Van Ameringen et al., 2008)

- In a community-based mental health clinic in the US, researchers found that 90% of their 505 clients had been exposed to trauma (Cusack et al., 2004).

- As such, we need to presume the clients we serve and our staff members may have a history of traumatic stress and exercise “universal precautions” (Hodas, 2005)

Trauma Informed Care Definition

TIC is a strengths-based service delivery approach that is rooted in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and clients.

(Hopper, Bassuk, & Olivet, 2010)

TRAUMA INFORMED CARE (TIC)

DEFINITION

Being trauma informed is about creating safety and trustworthiness within health care practices, our physical/emotional environments and daily interactions with clients, families and staff.

PRINCIPLES

Awareness

Safety

Trustworthiness

Choice

Collaboration

Skills Building

Why We're Becoming Trauma Informed

Optimizing Patient Experience

- To be proactive, prevention focused and strengths based
- To create and sustain ingredients for Patient and Family Centered Care: choice, power and control
- To reduce the possibility of re-traumatization
- To reduce negative encounters and events (seclusion and restraint)
- To increase client and family satisfaction
- To reduce unnecessary costs and reduce the need for unnecessary interventions

Engaged Workforce

- To support engagement of the work force through support for self care
- To increase success/performance and job satisfaction
- To reduce sick time
- To reduce negative encounters and events which may lead to burn out and/or vicarious trauma.

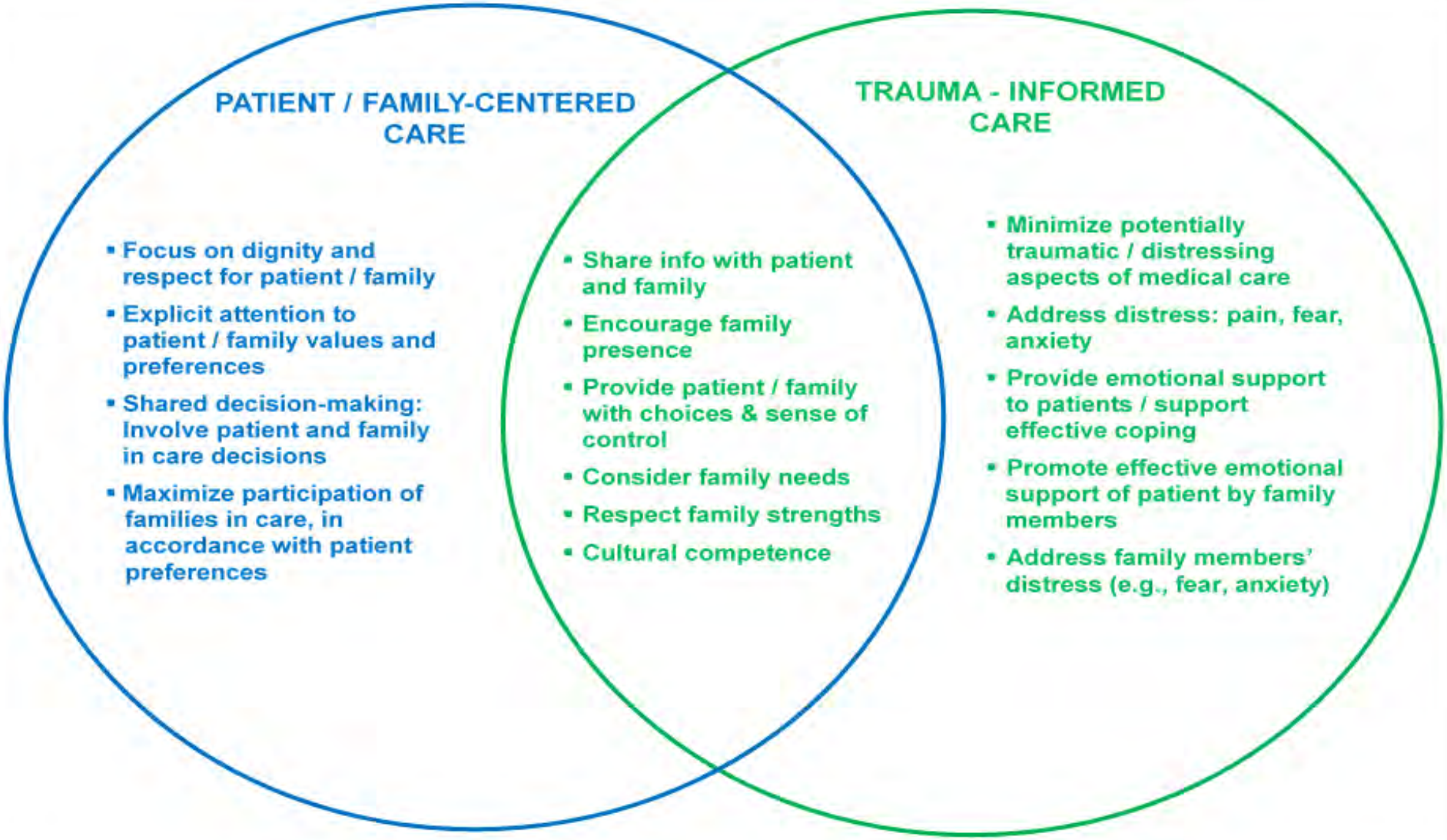
(Barton, Johnson & Price, 2009; Hodas, 2006; modified from National Council for Behavioral Health, 2013)

Evidence-Based Benefits

- Reduced trauma symptoms, drug use severity and mental health symptoms (Moses et al., 2003)
- Increased effectiveness of services – in engagement, retention, and outcomes (SAMHSA, 2011)
- Cost effective treatment (Community Connections, 2005)
- Decreased patient use of acute care and crisis services (SAMHSA, 2011)
- Increased organizational outcomes, such as: enhanced staff skills and morale; more collaboration within and outside their agencies; reduced vicarious trauma; fewer negative events
  (Hopper, Bassuk, Olivet, 2010)

(List adapted from: Trauma Matters Report, 2012)

Complimentary Approaches



www.healthcaretoolbox.org

Examples of TIC applicability

- Many medical interventions are traumatizing or re-traumatizing for clients and families.
- Recognizing the impact trauma, sexual abuse or domestic violence, can have as women experience prenatal care and child birth.
- Creating a safe and secure environment that supports disclosure of trauma.
- Recognizing the traumatic impact of seclusion and restraint.
- First contact staff
- Designing spaces that are trauma informed.

Community Connections

Creating Cultures of Trauma-Informed Care

Lori L. Beyer, LICSW

Community Connections

Community Connections

Community Connections

- Community mental health center in Washington DC
  - Serve 3000 adults, 800 children and adolescents
  - Substance addiction, homelessness, legal involvement, medical conditions
- Developed Trauma Recovery and Empowerment Model (TREM), published in 1998
- Trauma specific work led to our development of trauma informed initiative
- Consult to agencies/organizations/states all across US and in Canada

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

A Culture Shift: Scope of System Change

- Involves all aspects of program activities, setting, relationships, and atmosphere (more than implementing new services)
- Involves all groups: administrators, supervisors, direct service staff, support staff, and consumers (more than service providers)
- Involves making trauma-informed change into a new routine, a new way of thinking and acting (more than new information)

Community Connections

A Culture Shift: Changes in Understanding and Practice

- Thinking differently as a prelude to acting differently
- Thinking differently initiates and sustains changes in practice and setting
- Acting differently reinforces and clarifies changes in understanding

Community Connections

Changes in Understanding: Trauma-Informed Services

- Trauma-informed vs. trauma-specific
- Trauma-informed services:
  - Incorporate knowledge about trauma—prevalence, impact, and the diverse paths to recovery—in all aspects of service delivery and practice
  - Are hospitable and engaging for people who have experienced trauma
  - Minimize revictimization: “do no harm”
  - Facilitate healing, recovery, empowerment
  - Emphasize collaboration throughout the system

Community Connections

Changes in Understanding: Why Trauma-Informed Services?

- Trauma is pervasive
- Trauma's impact is broad and diverse
- Trauma's impact is deep and life-shaping
- Trauma, especially interpersonal violence, is often self-perpetuating
- Trauma differentially affects the more vulnerable
- Trauma affects how people approach services
- The service system has often been re-traumatizing
- Staff members are deeply affected by systemic stressors

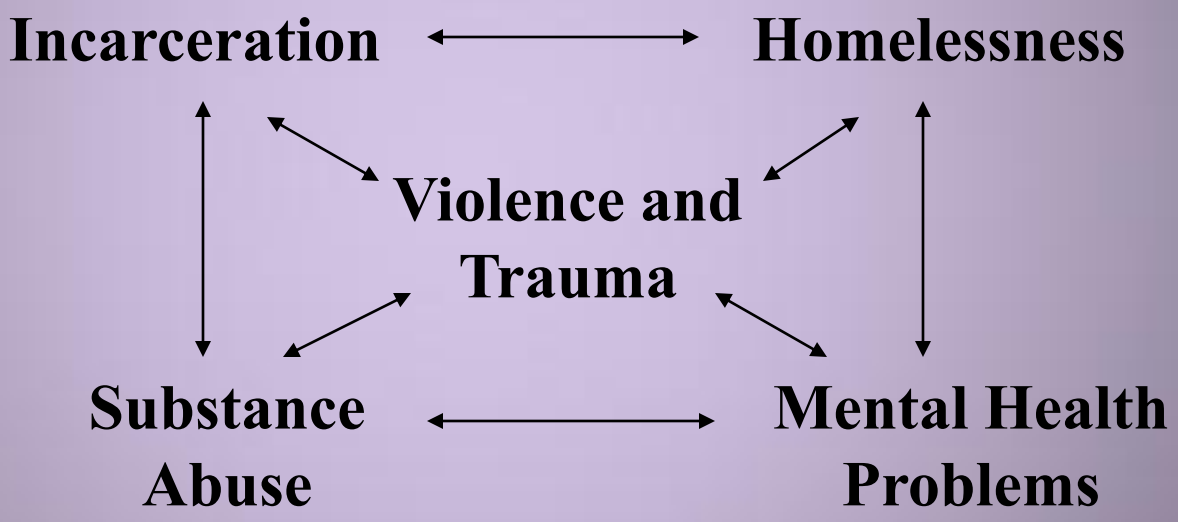
Community Connections

Is Trauma-Informed Care a Fad?

- History of TIC
  - SAMHSA Matrix: Trauma as Cross-Cutting Principle; Women, Co-Occurring Disorders, and Violence Study; National Center for Trauma-Informed Care; NCTSN
  - Harris, M. & Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
  - NASMHPD Initiatives
- Current Initiatives
  - Federal: inclusion in RFAs
  - States: State Public Systems Coalition on Trauma

Community Connections

Changes in Understanding: The Centrality of Trauma



Community Connections

Changes in Understanding: The Paradigm Shift

- Understanding of Trauma
- Understanding of the Individual Who Has Experienced Trauma
- Understanding of Services
- Understanding of the Service Relationship

Community Connections

Traditional Human Services Paradigm

- Understanding of Trauma
  - PTSD as organizing model
  - The impact of trauma is seen in predictable and obviously related domains of functioning
  - Trauma is viewed as a discrete event
  - The impact of trauma follows a definable course with specifiable time limits

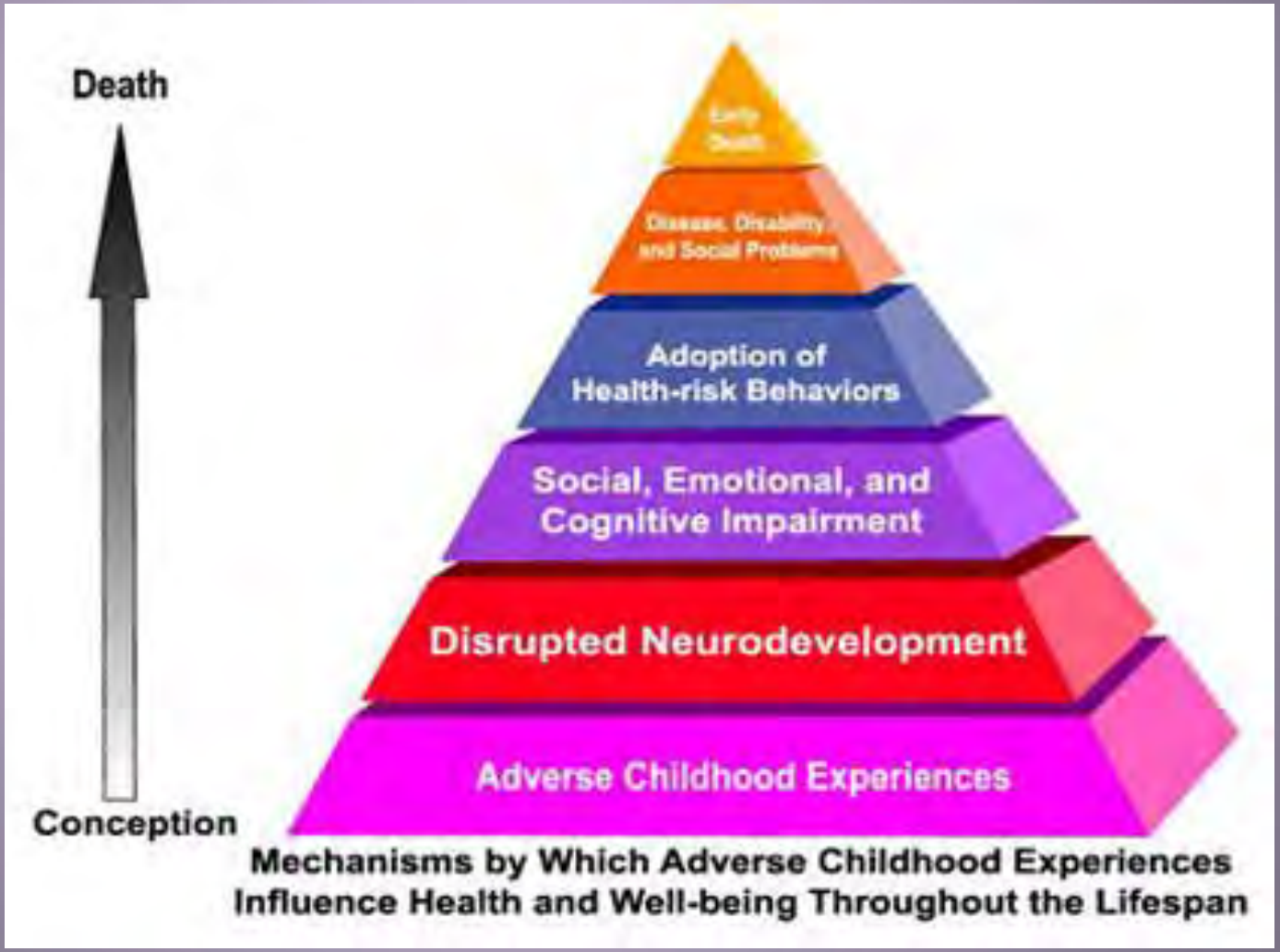
Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Trauma
  - Traumatic events are not rare; experiences of life disruption are pervasive and common
  - The impact of trauma is seen in multiple, apparently unrelated life domains
  - Repeated trauma is viewed as a core life event around which subsequent development organizes
  - Trauma may begin a complex pattern of actions and reactions which have a continuing impact over the course of one's life

Community Connections

Adverse Childhood Experiences (www.ACEstudy.org)



Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Community Connections

Traditional Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - Each separate service system has its own view of the individual and her or his problems
  - The “problem” is understood as an individual difficulty independent of context
  - The problem and the symptom are synonymous
  - The individual is often attributed either too little or too much responsibility

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Individual Who Has Experienced Trauma
  - An integrated, whole person view of both the individual and his or her challenges
  - A contextual, relational view of both challenges and solutions
  - Symptoms understood not merely as problems but primarily as attempts to cope and survive; “symptoms” may be “solutions”
  - Appropriate allocation of responsibility

Community Connections

Traditional Human Services Paradigm

- Understanding of Services
  - The primary goals of services are stability and the absence of symptoms or social problems
  - Services are often reactive rather than proactive
  - Service time limits are economically and administratively driven

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of Services
  - Primary goals are growth, empowerment, resilience, and life skill development
  - Service priorities are prevention driven
  - Service time limits are determined by the individual's needs

Community Connections

Traditional Human Services Paradigm

- Understanding of the Service Relationship
  - The individual is seen as passive recipient of services
  - The individual's safety and trust are taken for granted
  - Provider/patient relationships remain uniformly hierarchical

Community Connections

Trauma-Informed Human Services Paradigm

- Understanding of the Service Relationship
  - Both patient and service provider have a unique and valuable perspective
  - Patient voices need to be drawn out in empathic relationships, sensitized to the silencing impact of trauma
  - The individual's safety must be guaranteed and trust must be developed over time
  - Service relationships involve appropriate collaboration

Community Connections

Changes in Practice: Protocol for Developing a Trauma-Informed Culture

- Services-level changes
  - Service procedures and settings
  - Formal service policies
  - Trauma screening, assessment, service planning, and trauma-specific services
- Systems-level/administrative changes
  - Administrative support for program-wide trauma-informed culture
  - Trauma training and education
  - Human resources practices

Community Connections

Changes in Practice: Reviewing Service Procedures and Settings

- 1) Identify formal and informal activities and settings; specify sequence of events
- 2) Ask key questions about each activity and setting
- 3) Prioritize goals for change
- 4) Identify specific objectives, responsible person(s), and allotted time

Community Connections

A Culture Shift: Core Values of Trauma-Informed Care

- Safety: Ensuring physical and emotional safety
- Trustworthiness: Maximizing trustworthiness, making tasks clear, and maintaining appropriate boundaries
- Choice: Prioritizing patient choice and control
- Collaboration: Maximizing collaboration and sharing of power with patients
- Empowerment: Prioritizing patient empowerment and skill-building

Community Connections

Safety: Physical and Emotional Safety

- To what extent do service delivery practices and settings ensure the physical and emotional safety of patients?
- How can services and settings be modified to ensure this safety more effectively and consistently?

Community Connections

Where is the "here" in this quote?

"If people don't feel safe here, nothing else is going to happen."

http://www.youtube.com/embed/Pwghabw4N80?rel=0

Community Connections

Denial Stops Here!

Community Connections

Optimism Lives Here!

We Believe in Kids!

Community Connections

"You are entering a safe and special place"

Community Connections

From wherever you are,
enter and be welcome.

Community Connections

Trustworthiness: Clarity, Consistency, and Boundaries

- To what extent do current service delivery practices make the tasks involved in service delivery clear? Ensure consistency in practice? Maintain boundaries, especially interpersonal ones, appropriate for the program?
- How can services be modified to ensure that tasks and boundaries are established and maintained clearly, consistently, and appropriately?

Community Connections

Learning from the Remodelers

Community Connections

Choice: Consumer Choice and Control

- To what extent do current service delivery practices prioritize patient experiences of choice and control?
- How can services be modified to ensure that patient experiences of choice and control are maximized?

Community Connections

"An Ounce of Choice is Worth a Pound of Cure"

- Patient preferences in routine practice
- Patient preferences in crisis
- Small choices can have big consequences

Community Connections

Collaboration: Collaborating and Sharing Power

- To what extent do current service delivery practices maximize collaboration and the sharing of power between providers and patients?
- How can services be modified to ensure that collaboration and power-sharing are maximized?

Community Connections

"All Abuse is the Abuse of Power"

- Doing to
- Doing for
- Doing with

Community Connections

Empowerment: Recognizing Strengths and Building Skills

- To what extent do current service delivery practices prioritize patient empowerment, recognizing strengths and building skills?
- How can services be modified to ensure that experiences of empowerment and the development or enhancement of patient skills are maximized?

Community Connections

A Starbucks Customer Satisfaction Survey Story

- Was your drink prepared properly?
- Did anyone greet you by name?
- Was your visit to Starbucks _____?

(fill in the blank)

Changes in Practice: Revisiting the Core Principles Yet Again—for Staff this Time

- Safety: How can we ensure physical and emotional safety for staff members throughout our system of care?
- Trustworthiness: How can we maximize trustworthiness as administrators and supervisors? Make tasks and procedures clear? Be consistent?
- Choice: How can we enhance staff members' choice and control in their day-to-day work?
- Collaboration: How can we maximize collaboration and sharing of power with staff members?
- Empowerment: How can we prioritize staff empowerment and skill-building at every opportunity? Provide resources?

Community Connections

Review of Formal Policies

- Confidentiality policies are clear and shared with patients
- Policies avoid involuntary or coercive elements of treatment
- De-escalation policy is formalized and minimizes possibility of retraumatization
- Program prioritizes patient preferences in responding to crises (e.g., use of preference forms)
- Program has clearly written, accessible statement regarding patient rights and grievances

Community Connections

Trauma Screening, Assessment, Service Planning, and Trauma-Specific Services

- Universal trauma screening
- Follow-up with appropriate assessment of trauma exposure history and impact
- Include trauma-based information in collaborative, person-centered recovery planning
- Offer, or link to, trauma-specific services

Community Connections

Administrative Support for Trauma-Informed Culture

- Support for the integration of knowledge about trauma into all aspects of agency functioning
- Possible indicators:
  - Formal policy or mission statements
  - Developing a “trauma initiative”
  - Making resources available
  - Active administrator participation

Community Connections

Trauma Training and Education

- General trauma education for all staff (including administrators and support staff)
  - Recognize trauma dynamics; avoid retraumatization; understand range of coping behaviors; boundaries
- Clinical trauma education for direct service staff
  - Modifications for their specific areas; trauma-specific interventions; staff self-care

Community Connections

Human Resources Practices

- Hiring or identifying “trauma champions”
  - Knowledgeable about trauma; prioritize trauma sensitivity in service provision; communicate importance of trauma
- Including trauma content in interviews of prospective staff
  - Knowledge about trauma, trauma sequelae, and recovery
- Including trauma-related activities in performance reviews

Community Connections

Conclusion

- What we know about trauma, its impact, and the process of recovery calls for trauma-informed service approaches
- A trauma-informed approach involves fundamental shifts in thinking and practice at all programmatic levels
- Trauma-informed services offer the possibility of enhanced collaboration for all participants in the human service system

Community Connections (www.ccdc1.org): Materials for "Creating Cultures of Trauma-Informed Care"

- Harris, M. and Fallot, R.D. (Eds.) (2001). *Using Trauma Theory to Design Service Systems.* San Francisco: Jossey-Bass.
- "CCTIC Program Self-Assessment and Planning Protocol"
- "CCTIC Program Self-Assessment Scale"
- "CCTIC Program Services Implementation Form"

Community Connections

15 min Break

Enjoy!!!

Staff Support in Trauma Informed Programs

Lori L. Beyer, LICSW
Community Connections
Washington, DC

Staff Support and Well-Being

Understanding trauma-informed change as a "cultural" and "systemic" process means:

- Support and care for entire staff is essential, not an option or luxury
- Staff support is an organizational obligation as well as a "personal" or "professional" concern
- In stressed systems, trauma is a literal and figurative reality for many administrators and staff
- In such settings, we can apply much of what we know about trauma and recovery to the agency or program as a whole

The Basic Lesson

Staff members—all staff members—can create a setting of, and offer relationships characterized by, safety, trustworthiness, choice, collaboration, and empowerment only when they experience these same factors in the program as a whole. It is unrealistic to expect it to be otherwise.

A Culture Shift: The Core Principles of a Trauma-Informed System of Care (Revisited)

- Safety: Ensuring staff physical and emotional safety
- Trustworthiness: Maximizing trustworthiness of the system and making staff tasks clear
- Choice: Enhancing staff choice and control
- Collaboration: Maximizing collaboration and sharing of power with staff
- Empowerment: Prioritizing staff empowerment and skill-building

Name that Stressor

Some Common Stressors in Human Services

- Goals/demands exceed resources: do more with less
- Conflicting obligations or expectations
- Ambiguous standards for success
- Physical danger
- Emotional challenges, including vicarious trauma
- Few staff supports

Adapted from Russo, 2007

Vicarious Trauma and Burnout

- Vicarious Trauma (Compassion fatigue): Client-related flashbacks, troubling dreams, intrusive thoughts, sudden recall of frightening experiences, losing sleep
- Burnout: Work-related feelings of being trapped, hopeless, tired, depressed, worthless; unsuccessful at separating work from personal life

Adapted from Adams et al., 2006

Levels of Work-Related Stress

- Organizational: budget constraints; limited leave, supervision, physical resources (space, e.g.); increased caseloads
- Professional: beliefs about empathy, independence, and stoicism; number of education/consultation events
- Personal: personal trauma history; ineffective coping attempts; current stressors in personal life

Adapted from Russo, 2007

A Multi-Level Response to Stress

- Organizational: what the agency, program, or setting can do to support staff
- Professional: what the staff member and agency can do to enhance professional and work-related strengths
- Personal: what the staff member and agency can do to enhance personal well-being

Psychologically Healthy Workplaces

- Employee involvement
- Work-life balance
- Employee growth and development
- Health and safety
- Employee recognition

American Psychological Association, 2007

Toxic vs. Healthy Work Cultures

Adapted from Kahn & Langlieb, 2003 and Russo, 2007

- People do not help each other.
- Human needs are ignored.
- People feel alienated and dehumanized.
- Alternative approaches are met with derision.
- Cliques are common.
- There is systemic rigidity; boss is always right.

- Workers know what is expected of them.
- They have the resources to do the work.
- They have daily opportunities to do what they do best.
- Praise is offered regularly.
- Personal and professional development is encouraged.

What Helps? Organizational Responses

- Supervision/consultation/case discussion
- Time off for staff
- Education/training/new skills
- Opportunities to discuss and debrief about client- and work-related stressors
- Variety in caseload and work tasks
- Mental health benefits

Adapted from Russo, 2007

What Helps? Professional Responses

- Understand your own work needs
- Take time off from work
- Find education/training for new skills
- Take advantage of supervision/consultation
- Identify strengths—clients' and your own
- Accept reality of stress and strain
- Nurture your sense of humor

Adapted from Russo, 2007

What Helps on a Daily Basis?

- Pace yourself; take breaks when possible
- Talk to someone else—someone helpful
- Develop your own list of self-soothing activities that "fit" at work—and use them
  - Breathing, relaxation, meditation
  - Self-talk that is reassuring
- Monitor your body's reactions to the day

Adapted from Russo, 2007

Helping Yourself/Helping Others

- Accept stress and related feelings as legitimate—for yourself and for coworkers
- Express support and find supportive others
- Promote solutions rather than complaints
- Contribute to cohesion of your workgroup
- Strive for open and direct communication
- Frame problems and solutions as group concerns rather than individual ones

Adapted from Russo, 2007

What Helps?
Personal Responses

- Be honest about your exposure to emotionally stressful material
- Attend to inner experience; therapy?
- Build in transition times between work and home
- Use coping skills common in trauma curricula
- Have fun, be spontaneous, laugh
- Personal life? Balanced life? Spiritual life?

Adapted from Russo, 2007

Conclusion

- Trauma-informed service approaches involve the entire culture and all constituencies of a program
- Staff support and care are therefore a key element in this model
- Organizational, professional, and personal resources can help staff deal more effectively with work-related stress

How We're Becoming Trauma Informed

Implementing Trauma Informed Care in Nova Scotia

First Steps

- External Review – Child and Adolescent Mental Health and Addictions Services in the Halifax Regional Municipality (DHW/IWK)
- Action plan developed regarding how to proceed with recommendations (IWK/DHW)

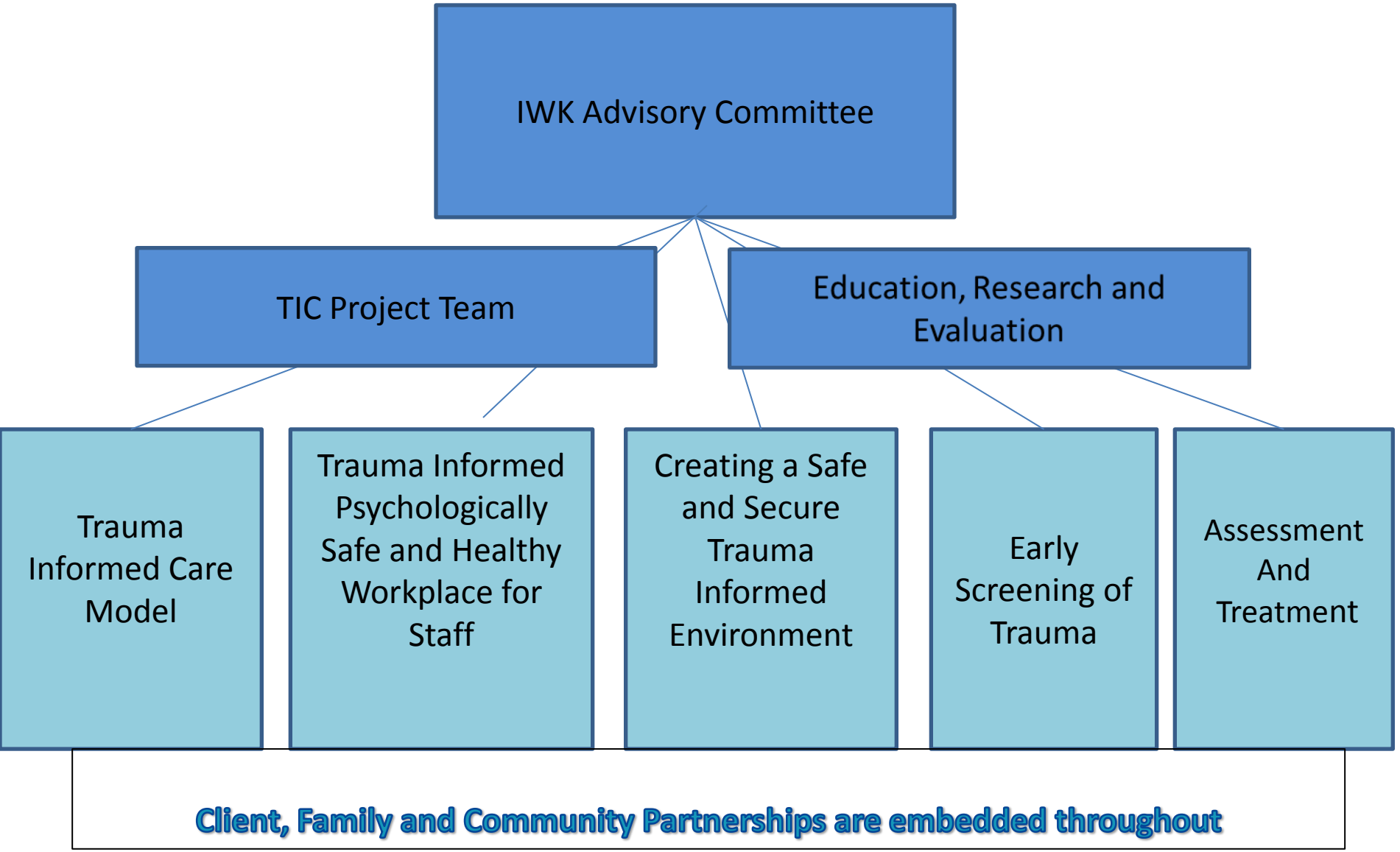
DHW /IWK Initiatives

- Formation of Provincial Project Advisory Team
- Provincial Consultations
- Webinars
- Framework ,Practice Briefs and Standards.

IWK Initiatives

- Formation of IWK CDHA Advisory Committee and Working Groups
- Work started on all working groups

Trauma Informed Care Team Structure



Some Examples of Working Group Initiatives

- Staff Mindfulness Training Pilot Study
- Debriefing Process and Resources
- Support for Staff - Resource List
- Website
- Trauma Informed Environmental Checklists

Look Around Your Physical Environment

- Examine your physical spaces to ensure they are comfortable, safe and calming
- Signage– Is the wording framed as what you can do vs. what you can't do?
- Are your waiting areas welcoming and friendly with comfortable furniture with maintenance up to date?
- Do you have information in client/patient areas that is intended to assist staff but may be triggering for clients/patients?
- Provide culturally appropriate symbols of safety in the physical environment (e.g. if you received Ali training -LGBTQI rainbow flag on an office door, culturally diverse posters, age appropriate)
- Artwork- Is the art work displayed calming to most people?

Be Mindful of the Emotional Environment

- Create interactions that are kind, calm, reassuring, safe, strengths-based and respectful
- Engaging around the client's/patient's goals
- Provide relationships which are honest and transparent and provide the client/patient with a developmentally appropriate degree of power and control. The child should understand what is about to happen, have a say and some control over pain management.
- Ask what helps when you or your child are upset/in pain? What was successful in the past? What are the triggers? What can we do?
- Continually seeking feedback regarding the client/patient's experience.
- Recognizing a coworker may be experiencing difficulty and offering support at the team level and also the organizational level.

OUR WORDS HAVE POWER

OLD WAY OF THINKING/DEFICIT BASED
VS.
TRAUMA INFORMED LANGUAGE/STRENGTHS BASED

What is wrong with you?	What happened to you? How did you cope?
This person is being manipulative	They are trying to get their needs met
They want attention	They are trying to connect the best they can
They have poor coping methods	They have survival skills and we can further support them by offering ideas for additional coping strategies
They'll never get over it, or they are permanently damaged	People can continue to learn effective coping strategies, and can recover from trauma
I shouldn't raise the issue of trauma or they will get upset	Talking about trauma (without forcing disclosure) gives opportunity to discuss, normalize & learn coping strategies. Failing to ask may reinforce society's denial of either prevalence or impact of trauma.

Introduction to Education Plan

Level 1: For EVERYONE

- **KICK OFF EVENT!!!!**
- General Awareness Campaign (e.g., Posters, 'Did You Know' emails)
- All IWK Staff Core Competencies (in development)
- Website (now available)
- TIC Education Sessions
  - Cultural Sensitivity/Competence/Relevance and TIC
  - Patient and Family Panel
  - Community Partners Panel
  - TIC Safe and Secure Environments

Sustainability Plan:

- Team-specific and Community-Based Organization consultations
- Train the Trainer Program/Trauma Informed Care Champions
- IWK TIC-Specific Staff Orientation/Onboarding Modules
- IWK Online/E-Source Education and 'Re-certification' Module
- TIC principles incorporated into Non-Violent Crisis Intervention

Level 2: For Designated Mental Health and Addictions Staff & Identified Individuals/Teams

- Attachment, Regulation and Competency (ARC) Training

- Clinician Core Competencies (in development)

Level 3: For Designated Clinicians who provide Trauma-Specific Services

- Evidence-Based Trauma-Specific Interventions Training for Mental Health and Addictions Clinicians

Sustainability Plan

Evaluation

- Community Connections Protocol for Certification (Harris and Fallot, 2009)
- Annual All Staff Survey (aka Readiness Survey)
- Annual Team TIC Evaluation Template
- Core Competencies
- Checklists

Potential Future Initiatives

- Online Education and Recertification Modules/Onboarding
- Performance Review Considerations
- Human Resources Considerations
- Student Training and Research Opportunities
- Curriculums for Health Professions

Examples of Research Opportunities

- Benchmarking Study
- TIC Pre-2016 at the IWK Study
- Patient/Family Driven Research Projects
- Client, family, staff, community partner satisfaction/feedback surveys/Focus groups
- Seclusion and restraint prevention research
- Screening
- Evidence-based trauma-specific intervention outcomes/Patient reported outcomes
- IT systems and trauma tracking
- IWK Resources/Services for Newcomers to Canada

Introducing our New Logo/Tagline

Website

www.yourexperiencesmatter.com

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- Lori Beyer, Community Connections Inc.
- Department of Health and Wellness
- IWK Health Centre
- Nova Scotia Health Authority
- Trauma Informed Care Advisory Committee
- Trauma Informed Care Project Team
- Trauma Informed Care Working Groups
- Trauma Informed Care Working Group Co-Leads
- Our system and community partners
- Revolve Branding
- All of you for taking the time out of your day to learn more about trauma informed care.

Special Thanks to the TIC Project Team for making this week happen!

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- Amy Jones, TIC Model Working Group Chair (*missing from photo)
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- Charlene Martell, TIC Administrative Assistant
- Jennifer McCarron, TIC Policy and Communications Lead
- Joanne Zevenhuizen, MHA Advanced Practice Leader: Education

Questions

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Emergency Homeless Shelters in North America: An Inventory and Guide for Future Practice

John I. Gilderbloom, Gregory D. Squires & Margaret Wuerstle

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EMERGENCY HOMELESS SHELTERS IN NORTH AMERICA: AN INVENTORY AND GUIDE FOR FUTURE PRACTICE

John I. Gilderbloom, Gregory D. Squires, and Margaret Wuerstle

Abstract

One of the most contentious issues in many cities is the fierce debate over the location, management and quality of homeless shelters. While these debates rage in places around North America, little research has been done on housing policy concerning homeless shelters. The purpose of this research was to provide an inventory of a broad cross-section of cities in North America in order to develop recommendations for more effective policies, practices, regulations and standards of operation for emergency homeless shelters. This study documents trends and regulations for homeless shelters in Canada and the United States. We used two separate independent surveys to see how 98 cities managed the relatively recent emergence of homeless shelters. One national survey examined 51 of the 100 largest cities' homeless shelter policies and another survey reviewed 47 selective cities that are small, medium, and large. Emergency homeless shelters are often criticized for poor physical condition, overcrowding, lack of privacy, crime, health concerns, and negative impacts on neighborhood property values and businesses. Our research documents the wide range of practices that are being implemented in efforts to respond to these problems, some of the limitations of these practices, and broader structural forces that nurture homelessness and undercut efforts to respond.

Key words: emergency shelters, homeless, housing policy, poverty, urban planning

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Introduction

One of the most contentious issues in cities is the fierce debate over the location, management and quality of homeless shelters. While these debates rage in cities around North America, little research has been done on housing policy concerning homeless shelters. Emergency homeless shelters are often criticized for their poor physical condition, overcrowding, lack of privacy, crime, health concerns and negative impacts on neighborhood property values and businesses. The past one hundred years of housing reform movements have argued that health and sanitary regulations in housing are vital to the sustainability of the neighborhood and its residents.

Newspapers from Atlanta to Toronto, Vancouver to Los Angeles, and Kansas City to Winnipeg report intense debates faced by many cities with their homeless populations (e.g., Gilderbloom, 2009, 2010). For more than 100 years, city governments have embraced inspections to uncover code violations. However, in homeless shelters, regulations to prevent overcrowding, ensure compliance with standards for sanitation, fire safety, accessibility and proper construction techniques have been found to be ignored in some shelters (Gilderbloom, 2009, 2010; Gilderbloom & Burke, 2010). According to Gilderbloom and Burke (2010) who wrote about the lack of government action on emergency unregulated homeless shelters that were getting federal, state and local dollars:

> The homeless task force ignored the bigger issue of sanitation, overcrowding, safety, auditing, and accountability. More shocking is the abject failure of the Task Force to document the filthy and overcrowded conditions of shelters at night which are used by returning veterans, mothers with children, and unemployed. In fact, the task force recommends against any kind of government oversight and accountability. Nor does task force address the lack of professional staff to address the large number of broken and fragile homeless persons with health problems, drug addictions, alcoholism, and mental illness who need a hand up. (p. A±8)

Shelter providers are more concerned with life-safety issues for homeless clients and not necessarily with quality of life issues. Furthermore, regulations that ensure that shelters are sited in any place other than deteriorating

or industrial neighborhoods are practically non-existent. Most shelters are relegated to heavy industrial or commercial districts, thereby isolating homeless individuals even further. Yet, the regulation of homeless shelters is still relatively new to cities (Birch & Silver, 2009; Sawicki, 2009; VonHoffman, 2009). A systematic inventory of regulations and standards used by cities in North America does not exist in the currently available literature on homeless shelters. This study was an attempt to document trends and regulations for homeless shelters. The findings collected were from 98 cities and communities across Canada and the United States. The primary purpose of this paper is to contribute to a small but growing body of literature on regulations that have been implemented to protect homeless individuals that use shelter facilities. It is also intended to educate and inform governments, bureaucrats, citizens, and persons who are homeless about their rights and responsibilities.

Defining the Emergency Homeless Shelter

Emergency homeless shelters are facilities that provide short term stays for persons experiencing homelessness who need a place to stay for the night, whereas other variations of homeless shelters allow individuals to stay for longer periods of time with additional self-help programs (Hoch & Slayton, 1989). They generally are cost free and provide few if any services. The individuals using the shelters are expected to leave the facility in the morning and can only re-enter the facility when it reopens in the evening. Sometimes referred to as homeless shelters, special assistance shelters, or various other terms, emergency shelters are distinguished from other forms of housing for the homeless population such as supportive housing or transitional housing by providing mainly a place to sleep for the night or a short period of time.

Emergency shelters serve as the dominant form of assistance for those who are homeless. Some see this over-reliance on emergency shelters as a consequence of governments' inability to respond to the social and economic factors that cause homelessness, for example, soaring rents, deinstitutionalization of the mentally ill, and joblessness (Appelbaum, Dolny, Dreier, & Gilderbloom, 1991; Gilderbloom, 2008; Gilderbloom & Appelbaum, 1988; Gilderbloom, Appelbaum, Dolny & Dreier, 1992). Shelters provide basic help: offering a bed for a period of time, a degree of privacy, and basic provisions such as showers,

sinks and toilet facilities. However, many of these provisions, and the quality of them, are dependent upon funding provided through private donors, foundations, organizations, charities or public grants (Culhane & Metraux, 2008). With this said, there is still a heterogeneity of purpose or clientele; they are so variable it is difficult to classify them in a meaningful way other than by function. For example, there are women's shelters, men's shelters, runaway teenager's shelters, domestic violence shelters, pregnant woman's shelters, and half way houses. These shelters can be funded by non-government organizations (e.g., religious groups) or through grants from government entities or foundations. In most cities, the federal government provides money to local governments who distribute grants on a "competitive basis" to some local homeless shelters with most of them getting some support. Shelters occasionally will go beyond basic services and provide additional programs such as addiction, mental and health counselling, basic job and life skills training, and in some instances even basic employment (Gilderbloom, 2009, 2010; Gilderbloom & Burke, 2010).

Each facility has differing policies regarding length of stay for individuals. Many homeless shelters wind up relaxing their maximum occupancy limits depending upon the availability of affordable housing, sickness and weather conditions, as well as the overall number of those experiencing homelessness in the community. Consequently, many facilities today maintain a population of people who are homeless and who are there for an extended period of time (Hoch, 2000; Hopper, 2003; Hwang, 2000).

Literature Review: Quality of Homeless Life

Home Not Shelter

Cooper-Marcus (1997) argued that the home is a "symbol of self" representing a key component of a person's mental health. A person's home shapes her or his physical and mental health as well as economic opportunities and social relationships. Numerous theorists have pointed out that the need for a home does not stop with the need for shelter (Cox, 1981; Fried, 1963; Gilderbloom, 2008).

The emergency homeless shelter environment is usually unpleasant and a difficult place to call home, even for a short period. Many attributes

such as over-crowding, limitations on the length of stay, lack of a quality diet, unsanitary facilities and mandatory removal from the facility during the day make the transition from a shelter and into a home environment difficult (Culhane & Metraux, 2008; Duneier, 1999; Hopper, 2003; Lyon-Callo, 2004).

Hopper (2003) provided the following description of one such shelter in New York which led to an overhaul on laws regulating homeless shelters:

> . . . approximately 120 beds were crammed into a room perhaps eighty feet by forty feet; in four rows, each stretching the length of the room. Each bed was separated from its neighbor by a metal locker (that was broken)…A few of the beds had no mattresses, the bare metal springs covered instead with an old rug, a sheet of corrugated cardboard, or nothing at all. Without exception, the mattresses were blacken with dirt and grime, pockmarked with the burns of innumerable cigarettes. (p. 89)

Hopper (2003) also quoted a homeless man stating:

> You got maybe two hundred guys sleeping in the dormitory. They don't give you no clean sheets; they got all kinds of lice on them, crabs on them. They don't give you no type of stuff to take of your personal hygiene….Plus they have ex-mental patients down there. They babble and talk to themselves. They don't give them no type of assistance. (p. 99)

Similarly, Gilderbloom and Burke (2010) found in another city an emergency shelter with women and children forced to sleep on concrete floors, toilets covered with excrement, no toilet paper or soap in the bathrooms; no social work in-take procedures or background checks on the homeless. They summarized the situation as:

> Indeed it's safe to say, that some shelters given the high number of 911 calls are probably some of the most dangerous places to live in Louisville. How bad is it? Unregulated shelters where fifty or more are put in a room on mats; bathrooms with filthy toilets covered with excretion on the seats with no toilet paper or soap. There are no adequate background checks on shelter users including identification checks on criminal history or immediate medical examinations. The media spectacle of

> funerals for twenty recently deceased homeless persons shouts out that government needs to stop this fiasco. (p. A-8)

The dangerous, overcrowded and unsanitary conditions of the homeless shelters help explain why many who are experiencing homelessness choose to avoid shelters and sleep on the streets (Duneier, 1999).

Some emergency homeless shelters have been known to put 50 or more persons in a crowded room with just bunk beds or floor mats (Duneier, 1999; Gilderbloom, 2010; Gilderbloom & Burke, 2010; Hopper, 2003). Pynoos, Schafer, and Hartman (1973) reported that "overcrowding may lead to increased stress, poor development of sense of individuality, sexual conflict, lack of adequate sleep leading to poor work and school performance, and interfamilial tensions" (p. 4). Schorr (1963) argued that overcrowding was responsible for more health problems than the actual quality of the unit. A sound study on this issue was the work of sociologists Gove, Hughes, and Galle (1979). They found that overcrowding within a dwelling "[is] strongly related to poor mental health, poor social relationships in the residence, and poor child care; and [is] less strongly but significantly related to poor mental health, poor social relationships outside the residence" (Gove et al., 1979, p. 59). This comes as no surprise as the effects of homeless shelters on both the physical and emotional health of clients has been demonstrated through several studies (Bryant, 2004; Daly, 1996; Hwang, 2001; Plumb, 2000).

The fact that the homeless population is highly mobile contributes to the health problems at shelters (Daly, 1996; Khandor & Mason, 2007). Statistics bear out the reality that the homeless, while often less healthy than the general population, have higher rates of contracting diseases, such as scabies and body lice (Duneier, 1999; Hopper, 2003; Hwang, 2001). They are susceptible to a range of problems as a result of malnourishment, lack of appropriate clothing, and poor hygiene. Because they often spend a lot of time walking and standing, and usually have to wear shoes that don't fit, they are prone to foot problems (see also Khandor & Mason, 2007). According to Daly (1996), the rates of tuberculosis among those experiencing homelessness are as much as 100 times higher than in the general population. Furthermore, it is estimated that one-third to one-half of the this population suffers from some form of mental illness, and an estimated 25% to 35% of the those who use

shelters have been in a psychiatric hospital at least once (Culhane, Metreaux & Hadley, 2002; Gilderbloom, 1988, 2008, 2009, 2010; Hoch, 2000; Khandor & Mason, 2007; Walsh, 1985). The five most common reasons why people avoided shelters in Toronto were: bed bugs, crowded conditions, fear of getting sick, fear of violence and fear of theft (Khandor & Mason, 2007). Some shelter clients rated prisons superior to shelters in terms of safety, cleanliness and food quality (Rossi, 1989). Shelters only fared better because residents were able to leave at their own will.

Depending on the type of mission, the quality of shelters vary in terms of how well they address the needs of those whom they are servicing. This has been attributed to restrictions shelters can impose on clients such as barring or excluding people who are intoxicated or acting aggressively (Rossi, 1989). The "shelters of last resort" are seen as the most problematic, causing cities to begin the task of addressing the needs of their homeless population by drafting new policies and regulations. However, as more recent literature indicates, there is still a need for further analysis and documentation of the policies and regulations cities have in place to combat homelessness.

The Emergency Homeless Shelter "System"

Since the early 1980s, there has been an ongoing debate in the social sciences over whether emergency homeless shelters contribute at all to a reduction or elimination of homelessness (e.g., Culhane, 1992; Culhane & Metraux, 2008). Desjarlais (1997) stated, "shelters now do what mental institutions did but with far fewer resources and ability to care for clients with mental health needs" (p. 27).

For two decades, the "Continuum of Care" approach to homelessness has been embraced as the U.S. Department of Housing and Urban Development (HUD) policy to help those experiencing homelessness. HUD developed the Continuum of Care approach in 1994 as a holistic way to synchronize services to help those who are homeless (Gilderbloom, 2009, 2010). To prepare individuals for self-sufficient life outside of a shelter, the Continuum of Care model urged shelters to help individuals address their mental health issues and addictions. This model outlines a detailed progression from absolute homelessness to independent living, and includes support services to help

such individuals become more self-sufficient. The Continuum of Care model to transition the homeless out of shelters has never been evaluated. On any given night, more than half of the single adult homeless in the United States sleep on the streets (U.S. Department of Housing and Urban Development, 2012; Wuerstle, 2010). The gap in the Continuum of Care is so large it is difficult to say there is a continuum at all and the numbers have overwhelmed the system (Barber, 2008). Research has shown that this model, while widely adopted, has done little to alleviate homelessness (Culhane, 1992; Culhane & Metraux, 2008; Hoch, 2000; Leo & August, 2005; Lyon-Callo, 2004). This could be due to the fact that Continuum of Care was originally a funding reform, meant to change the ways HUD funded programs. The programs formed a planning body that did make some recommendations and created projects to attempt to cover the gaps, which was a rather lofty goal due to the size and number of gaps. Furthermore, the experience of living in these facilities can create long-lasting and devastating repercussions in a person's health and sense of self (Leo & August, 2005). At a minimum, some shelters function to provide protection from the elements while people sleep; these shelters do not support people's transition out of homelessness (Gilderbloom, 2008; Hopper 2003).

Emergency Homeless Shelter Location

Homeless shelter location is a major issue that some cities have tried to address. Most shelters are situated in facilities that were designed for other purposes, such as old armories, schools, and vacant facilities in declining neighborhoods (Desjarlais, 1997). This is likely attributed to the ease with which shelter providers are able to locate in struggling neighborhoods where there is the added benefit of low-cost rents and/or properties (Gilderbloom, 2009).

Although there is little research on the connections between emergency homeless shelters and crime, some data exist demonstrating that shelters have a negative impact on property values and, consequently, are located where there is least likelihood of opposition by voters, political campaign contributors, and other influential citizens. A case in point is the City of Cincinnati, where public officials determined that property devaluation was occurring around homeless shelters (Cincinnati, 2004, 2006, 2008a, 2008b, 2008c; Wuerstle,

2010). They found that public nuisance complaints such as public intoxication, panhandling, loitering, drug usage, and public urination were likely to happen around shelters (Cincinnati, 2008a, 2008b, 2008c; Wuerstle, 2010). According to Cincinnati Police Department statistics, calls for emergency services were substantially higher in the neighborhood containing the city's largest shelter. Further exacerbating the situation was the continuous police presence required to address the nuisance complaints. Over time, these complaints and the police presence led businesses and homeowners to flee these neighborhoods, thereby acting as a deterrent to investment. In an effort to understand the depth of the impact that homeless shelters were having on neighborhood investment, the City of Cincinnati (2009) conducted a number of surveys and focus groups. One survey of property appraisers suggested that most were certain that business and housing property values would be lower in such areas (Wuerstle, 2010). A survey of shelter providers stated concerns that they felt 'locked' into current neighborhoods because new zoning regulations and community opposition would make it more difficult to de-concentrate by relocating to other neighborhoods.

While providing facilities throughout neighborhoods seems to be preferred by neighborhood groups, de-concentration of shelter facilities is a double-edged sword because the more remote and isolated a homeless facility is, the less effective it is at getting people off the streets (Hoch, 2000; Hopper, 2003). However, concentrating large numbers of homeless facilities and services in one location also isolates individuals by not integrating the individuals into a stable neighborhood environment. Therefore, it is vital that shelters for those experiencing homelessness are located throughout a city. To get the individuals transitioned to independent living, they must have shelter located near public transportation, jobs, social services, and schools (Davis, 2004). This is best accomplished by locating shelters in residential and commercial areas and not solely in industrial or deteriorating neighborhoods.

Regulation

The roots of regulation stem from the notion that many social ills could be alleviated through the regulation of shelter. This began in 1901 when the leading housing reformers, architects, town planners, and elected

officials put together a conference which would later become known as the American Planning Association. Birch and Silver (2009) add that a primary focus of planners was how to "deal with crowding, poor sanitation, and poorly ventilated and shoddy housing" (p. 119) (see also Talen, 2012; von Hoffman, 2009). For nearly 100 years, a major task of government has been to combat poor sanitation and overcrowding, which was believed to be aggravated or caused by a host of social and physical evils (Birch & Silver, 2009; Talen, 2012; U.S. Senate Committee on the District of Columbia, 1910). Birch and Silver (2009) suggest that life expectancy for United States citizens increased from 50 years of age in 1909 to 78 years of age in 2009 in part due to "minimum housing standards."

Today's standards have emerged partly as a result of a number of technological and scientific advancements, as well as from social movements such as rational planning, utilitarian ethics and social reform (Talen, 2012). By the 1980s the Reagan administration announced that housing regulations had caused the quality of housing to be the highest ever in North America and Western Europe (Appelbaum et al, 1991; Gilderbloom & Appelbaum, 1986; Gilderbloom et al., 1992). This also marked the sudden emergence of homelessness as conservative governments cut back on social welfare programs, de-institutionalization was taking place, and there was a breakdown in families. It appears that the conservative argument renouncing "government regulation of housing" in favor of self-regulation has won out in many cities when it comes to emergency homeless shelters (Gilderbloom, 2008). Our aim in this research was to do an inventory of planning actions for emergency shelters' location, management, sanitation, regulation, and inspection.

Method

This study of emergency homeless shelter policies employed document analysis and data from interviews with informants. To fill in the gaps of knowledge regarding the regulation of emergency homeless shelter facilities in North America, we compiled a summary of the types of laws that have been enacted to address issues surrounding the development of these facilities. The research constitutes the largest independent collection of regulations related to homeless facilities. We surveyed a broad cross-section of cities in North

America in order to provide a qualitative examination of emerging policies, practices, regulations, standards of operation, and trends in the regulation of emergency homeless shelters. We used two separate independent surveys to study how cities manage the relatively recent emergence of homeless shelters. The surveys were done independently of each other at different universities and cities and were made at the request of their respective city governments, homeless activists, and inner-city neighborhood organizations. When the two research teams learned of each other's respective research, they decided to collaborate and write this article together instead of separately, providing a richer and more nuanced study as a result. Together they provide a wealth of information on policies that cities are debating issues that have largely been absent from the urban policy scholarly literature.

In Survey Number 1, we rank ordered the 100 largest cities in the United States and approached each of them; 51 responded for just over a 50% response rate. It is generally accepted that a sample that yields at least a 50% response rate is an appropriately representative sample (Babbie, 2009; Gilderbloom, Ambrosius, Squires, Hanka & Kenitzer, 2012; Gilderbloom & Markham, 1995; Schutt, 2012). The questionnaire for Survey Number 1 specifically focused on the extent and type of regulations by asking: a) if homeless shelters were zoned in certain parts of the city; b) whether there were limitations on the size of shelters through regulating the maximum number of beds; c) if there were mandates for a certain ratio of social workers to residents; d) what security issues were faced by residents; and, e) what evaluation and screening practices had been conducted. The first points of contact were with the planning departments or other departments specializing in homelessness followed by the mayors' offices and the government legal department. When city officials were not able to respond, they suggested following up with other stakeholders; the interviews were extended to local homeless coalitions and emergency homeless shelter operators.

The data collection was done through telephone interview, email or fax. It was cost prohibitive to research every city's vast municipal code to locate all of the regulations that pertain to those experiencing homelessness. We found that the best way to conduct the research was to use the "knowledgeable informants approach"; this method was used in both surveys and allowed us to contact

informed government officials who could give us the information we sought (Babbie, 2009). Due to the complexity of the study, it was challenging to obtain the needed information and it was unclear why some cities did not respond to our requests, though there could have been a number of issues such as a lack of resources, a lack of municipal codes, or a lack of a knowledgeable informant.

Survey Number 2 was a non-random survey of 47 selected cities that ranged from small to large in the United States and Canada. The survey could also be considered a snowball sample that was defined as looking at cities with a "reputation" for introducing and passing emergency housing shelter regulations. To find out what kinds of regulations and policies cities enacted, interviews were conducted with city officials, homeless advocates, shelter operators and recipients of homeless services. After creating a list of regulations found in cities through online searches, Survey Number 2 called selected municipalities to determine if a study documenting the impact of these uses on neighborhoods had been prepared. A total of 47 cities shared information with us. We were interested in the following: a) Why had the municipality adopted regulations for these particular uses?; b) What impacts did these uses have on neighborhoods that justified regulations?; c) How did the municipalities document the impacts of these uses?; d) Was a report prepared?; e) Was a survey conducted?; and, f) Were site assessments conducted? The data were collected via telephone interviews, emails, and faxes to cities identified with regulations concerning homeless shelters.

We combined the two different surveys to assemble information from a large number of U.S. cities (as well as counties and townships) and Toronto, Canada. Figure 1 identifies the cities that participated. It shows that our studies represented a range of cities in North America. The fact that the surveys were conducted independently of each other but found similar results in overlapping areas increases the validity and reliability of this study (Babbie, 2009; Schutt, 2012).

Findings

The findings from the surveys are summarized regarding the impact on residents and the impact on neighborhoods. Current practices and trends are then presented.

Map Created by John Gilderbloom, Andrew Condie and Zach Kenitzer

Figure 1. Locations of Sites Where Homeless Shelter Surveys Were Conducted

Impact on Residents

Table 1 shows that many cities had enacted some form of government regulation concerning homeless shelters. Nearly two-thirds of the cities limited the number of occupants in a homeless shelter. Similarly, two-thirds of the cities had zoning standards on the location of homeless shelters. Roughly one-third of the cities had also adopted regulations regarding squatting and tent cities. Almost one-half of the cities required homeless shelters to be certified and have regular inspections. Nearly one-third mandated evaluations of homeless shelters, but of those requiring evaluations, only half used an outside evaluator. Only a small number of cities mandated a certain ratio of social workers to homeless persons in the shelters. Roughly, one out of six shelters had mandates for security; no cities required shelters to cooperate with police investigations. With the exception of one city, no shelters allowed alcohol or drug use on the premises although it was noted that several cities "looked the other way" concerning substance abuse. It should be noted that the response rate also declined significantly for the questions about substance abuse.

Table 1. Responses of Regarding Regulations—Survey Number 1

Questions	Yes		No		No Response	
	Number	Percent[a]	Number	Percent[a]	Number	Percent
Limit the size and/or the capacity of homeless shelters?	30	58.8% 62.5%	18	35.3% 37.5%	3	5.9%
Locations of emergency homeless shelters?	31	60.8% 75.6%	10	19.6% 24.4%	10	19.6%
Establishment or certification of emergency homeless shelters?	24	47.1% 54.5%	20	39.2% 45.5%	7	13.7%
Inspections of emergency homeless shelters?	27	52.9% 61.4%	17	33.3% 38.6%	7	13.7%
Evaluations of emergency homeless shelters?	15	29.4% 40.5%	22	43.1% 59.5%	14	27.5%
Outside evaluations or inspections of emergency homeless shelters?	7	13.7% 18.9%	30	58.8% 81.1%	14	27.5%
Ratio of social workers to clients at emergency homeless shelters?	7	13.7% 17.5%	33	64.7% 82.5%	11	21.6%
Screening processes at emergency homeless shelters?	3	5.9% 8.1%	34	66.7% 91.9%	14	27.5%
Data collection of homeless individuals?	19	37.3% 46.3%	22	43.1% 53.7%	10	19.6%
Security at emergency homeless shelters?	7	13.7% 18.9%	30	58.8% 81.1%	14	27.5%
Cooperation with police in pending investigations?	0	0.0% 0.0%	38	74.5% 100.0%	13	25.5%
Do your city's shelters allow alcohol or drug usage in shelter?	1	2.0% 2.8%	35	68.6% 97.2%	15	29.4%
Are you aware of any shelters in your city that "turn the other way?"	5	9.8% 16.7%	25	49.0% 83.3%	21	41.2%
Does your city have any regulations regarding "tent cities?"	13	25.5% 40.6%	19	37.3% 59.4%	19	37.3%
Does your city have any regulations regarding "squatting?"	17	33.3% 54.8%	14	27.5% 45.2%	20	39.2%

Source: University of Louisville, Center for Sustainable Urban Neighborhoods
[a] Lower percentage is with "No Response" taken out

Another debate on homeless shelters was whether restrictions should be placed on the number of beds in a facility. Several cities had passed laws restricting the size of shelters from 40 to 100 beds. Table 2 examines this question concerning the ideal size of a shelter. A majority of the respondents indicated that the ideal size of a shelter should be 25 or fewer beds; many said that "smaller was better." The least popular shelter size was shelters with 250 beds or more.

Table 2. Responses Regarding the Ideal Size for an Emergency Homeless Shelter—Survey Number 1

	Most ideal		Least ideal	
Number of beds	Number	Percent[a]	Number	Percent[a]
25 and less	20	39.2% 60.6%	9	17.6% 29.0%
26 ± 100	7	13.7% 21.2%	3	5.9% 9.7%
101 ± 250	4	7.8% 12.1%	0	0.0% 0.0%
More than 250	2	3.9% 6.1%	19	37.3% 61.3%
No Response	18	35.3%	20	39.2%

Source: University of Louisville, Center for Sustainable Urban Neighborhoods
[a] Lower percentage is with "No Response" taken out

The majority of cities sampled had some form of regulation regarding homeless shelters. For example, we learned from our interviews that when inspections occurred at shelters the majority of inspections were either for fire or building codes. Many cities also collected information on persons who were homeless and that passed through their shelters. However, they reported that they were doing so not because the city mandated it, but because their grants did. Most shelters that collected information used a system standard required by HUD.

Impact on Neighborhoods

The findings suggest that many cities were struggling with the impact of shelters on neighborhoods and how to regulate shelters so that the needs of this at-risk population were addressed humanely while mitigating any adverse impacts on the neighborhoods. Yet, due to a lack of information, many were

unaware of what other cities had accomplished. Many cities tried to regulate through existing legislation because passing new regulations would be difficult from an administrative and political standpoint.

Survey Number 2 revealed that jurisdictions were concerned with the potential negative impacts of certain social service uses within cities. Table 3 illustrates that many cities regulated the distance separating shelters from each other. Most of the cities contacted that had developed distance separation regulations had also adopted regulations concerning the size of the shelter and number of beds allowed in a shelter (see also Tables 4 and 5). Of these, most limited the size from 40 to fewer than 100 beds (Table 6). However, fewer cities had implemented population ratio requirements that limit the number of shelters based on the population of a neighborhood or municipal jurisdiction. For instance, a municipality may limit the number of shelters to one per 25,000 people based on the census count of the jurisdiction. Only a minority of cities had licensing requirements or a "Good Neighbor Plan" which attempted to mitigate any negative impacts of a shelter in the surrounding neighborhood. A number of cities had additional regulations such as mandatory fencing for adjoining properties (Cleveland, Ohio), lighting requirements for the perimeter of the property (Red Bluff, California), or required individuals entering shelters to sign a contract that specified rights and duties (New York City).

Table 3. Types of Regulations for Homeless Shelters—Survey Number 2

	City	Distance separation	Population ratios	Size limitations	Licensing	Good neighbor plans	Additional regulations
1	Anchorage, Alaska	X		X			
2	Atlanta, Georgia	X					
3	Boston, Massachusetts	X					
4	Broward County, Florida	X					
5	Cleveland, Ohio	X	X	X			X
6	Columbus, Ohio	X		X			
7	Covington, Kentucky	X	X		X	X	
8	Dallas, Texas	X		X			
9	Denver, Colorado			X			
10	Des Moines, Iowa			X		X	X
11	Detroit, Michigan	X			X		

Table 3 (continued). Types of Regulations for Homeless Shelters—Survey Number 2

	City	Distance separation	Population ratios	Size limitations	Licensing	Good neighbor plans	Additional regulations
12	Elko, Nevada	X					
13	Fairfield, California						X
14	Gainesville, Florida	X		X			
15	Green Bay, Wisconsin	X	X				
16	Hamilton, Canada	X					
17	Henderson, Nevada	X					
18	Knoxville, Tennessee	X		X			
19	Lacey, Washington	X		X			X
20	Lawrence, Kansas			X			
21	Little Rock, Arkansas	X					
22	Los Angeles, California			X			
23	Marshall Township, Pennsylvania	X			X		
24	Mesa, Arizona			X		X	
25	Miami, Florida	X	X				
26	Minneapolis, Minnesota					X	
27	Miramar, Florida	X					
28	New York City, New York			X	X		X
29	Oklahoma City, Oklahoma						
30	Ottawa, Canada	X		X	X	X	X
31	Palmdale, California	X					
32	Pasadena, California			X			
33	Phillipsburg, New Jersey			X	X		
34	Portland, Oregon						
35	Prescott, Arizona	X			X		
36	Raleigh, North Carolina			X	X		X
37	Red Bluff, California			X		X	X
38	Rochester, Minnesota	X	X				
39	Rochester, New York	X				X	
40	Roseville, California	X		X		X	X
41	Sacramento, California	X		X			
42	San Diego, California	X				X	X
43	Shelby, North Carolina	X		X			
44	Spokane County, Washington	X		X	X	X	
45	Toronto, Canada	X					
46	Wichita, Kansas			X			
47	Wilmington, Delaware						X

Source: City of Cincinnati / University of Cincinnati Survey

Table 4. Regulations Regarding Distance Separation Requirements Between Shelters—Survey Number 2

City	Separation	Facility type	Comments
Anchorage, Alaska	1,000 Ft.	Residential Care Facility from existing facility.	
Atlanta, Georgia	2000 Ft.	Human Services, Personal Care Homes, Child Caring Institution, Assisted Living Facility and Group Home Facility.	Also requires Special Use permit, the use must be within 1500 ft. of public transportation, provide 80 s.f./person and the use cannot expand or increase the number of persons once Special Permit is approved.
Boston, Massachusetts	600 Ft.	Group Living Facility from another Group Living Facility.	
Broward County, Florida	500 Ft.	Homeless Shelter from any residentially zoned district.	
Cleveland, Ohio	500 Ft.	Shelter from any residential zone.	
	500 Ft.	Halfway House from lots occupied by a playground, public park, public recreation center, church, public library, pre-school, daycare, primary or secondary school.	
	2,000 Ft.	Halfway House from another correctional halfway house.	No more than two correctional halfway houses shall be located in any police district.
Columbus, Ohio	1,000 Ft.	Halfway House be located no closer to another halfway house or community residential treatment center; to any institution similar in nature but occupied by more than thirty residents; or to a school, nursing home, rest home or home for the aging.	The halfway house should be located in an eligible census tract. A census tract shall be eligible for such location if it contains no halfway house or community residential treatment center.
Covington, Kentucky	One mile.	Homeless Shelter from another shelter.	
	500 Ft.	Homeless Shelter from a school.	
Dallas, Texas	One mile.	Homeless Shelter from another shelter.	
Detroit, Michigan	3,000 Ft.	Homeless Shelter from other homeless shelter.	
	500 Ft.	Homeless Shelter from an Adult Foster Care Facility.	
Elko, Nevada	1,320 Ft.	Halfway House and another such facility.	
Gainesville, Florida	1,320 Ft.	Halfway House between one halfway house and another facility.	
	2,000 Ft.	Halfway House away from food distribution for the needy.	
	2,000 Ft.	Food Distribution Center from the University of Florida Campus.	
	2 mile radius	Food Distribution Center for destitute people cannot be located within a 2 mile radius of one another.	

Table 4 (continued). Regulations Regarding Distance Separation Requirements Between Shelters—Survey Number 2

City	Separation	Facility type	Comments
Green Bay, Wisconsin	2,500 Ft.	Community Living between any such facility.	
Hamilton, Ontario, Canada	Minimum radial distance of 300 meters	Homeless Shelter from any other residential care facility, emergency shelter, or corrections residence.	
Henderson, Nevada	1,500 Ft.	Halfway House from multifamily developments, these establishments are only allowed in individually owned units.	
Knoxville, Tennessee	300 Ft.	Halfway House from a park, school, or day care center.	
Lacey, Washington	300 Ft.	Halfway House from licensed daycare center, public or private school.	The requirement can be waived by daycare operator if the property is adjacent to the host agency.
Little Rock, Arkansas	1,500 Ft.	Separation, spacing and procedural requirements for homeless shelters will be determined by the planning commission so as not to adversely impact the surrounding properties and neighborhood. Unless the commission determines that a different area is more appropriate, a neighborhood shall be defined as an area incorporating all properties lying within one thousand five hundred (1,500) feet of the site for which the permit is requested.	
Marshall Township, Pennsylvania	1,000 Ft. 1,000 Ft.	Halfway House from another Halfway House. Halfway House from Amusement park; Camp (for minors' activity); Child care facility; Churches and similar places of worship; Community center; Library; Museum; Park; Playground; School; Other lands where minors congregate.	
Miami, Florida	2500 Ft	Community based residential facility from like facility.	Also has population ratios.
Miramar, Florida	1,000 Ft. 1,200 Ft.	Homeless Shelter from an Adult Foster Care Facility. Homeless Shelter from lots occupied by a playground, public park, public recreation center, church, public library, pre-school, daycare, primary or secondary school.	
Ottawa, Canada	1,640 Ft. 3,281 Ft.	Group Living Facility between urban areas. Group Living Facility between facility and other residents in rural setting.	

Table 4 (continued). Regulations Regarding Distance Separation Requirements Between Shelters—Survey Number 2

City	Separation	Facility type	Comments
Palmdale, California	1,320 Ft.	Shelter from another shelter.	
	500 Ft.	Shelter from a school.	
	150 Ft.	Shelter from any single-family residential zone.	
Portland, Oregon	150 Ft.	Provisions for shelters include density limitations, max. occupancy regulations and hours of operation. Where two or more residential zones are within 150 feet of a Group Living development, the controlling regulations are those of the lower density zone.	Group Living facilities must be included in the mission statement of the campus's impact mitigation plan; The impact mitigation plan's implemented mitigation measures must accommodate the impacts the Group Living facility will create.
Prescott, Arizona	1,320 Ft.	Transitional Housing between such uses, as measured in a straight line from the nearest property line of an approved facility to the nearest property line of another Transitional Housing facility.	
Rochester, Minnesota	500-1000 Ft.	Offender Transitional Housing from like facility	Also population ratios.
Rochester, New York	1/4 mile	Homeless Shelter from other homeless shelters and similar uses.	
Roseville, California	500 Ft.	Temporary Resident Shelter from any preschool, elementary school, high school, or any zone where temporary resident shelters are not permitted.	
Sacramento, California	1000 Ft	Sm. and Lg. Shelters for adults from any other temporary residential shelter.	Small (24 beds) shelter for adults and large (over 24 beds) shelters for adults.
	500 Ft.	Sm. and Lg. Shelters for adults from public park, schools K-12, churches and residential zones.	Small (24 bed) shelter for adults and large (over 24 beds) shelters for adults.
	1000 Ft.	Sm. Shelter from other temporary residential shelters	Other Small Shelters and Large Shelters.
San Diego, California	1/4 Mile	Homeless Day Center from an emergency shelter.	Measured from property line to property line.
Shelby, North Carolina	2,000 Ft.	Halfway House from another Halfway House.	
Spokane County, Washington	1/4 of a mile	Halfway House from Public library, Public playground or park, Public or private school and its grounds of kindergarten to 12th grade, Child day-care center, Place of worship such as a church, mosque, synagogue or temple, Another halfway house.	
Toronto, Canada	820 Ft.	Homeless Shelter from another shelter.	

Source: City of Cincinnati / University of Cincinnati Survey

Table 5. Regulations Regarding the Ratio of Shelters to Population—Survey Number 2

City	Facility type	Regulations	Comments
Covington, Kentucky	Youth Shelter	One shelter per 25,000 persons in the city.	
	Addiction Treatment	No more than one addiction treatment facility per 25,000 persons residing in the city.	Addiction treatment facilities are appropriate if they meet the criteria listed above, unless clear convincing evidence is presented that deleterious impacts involving noise, traffic, safety, or property values will result from the establishment of a shelter at a particular location.
Green Bay, Wisconsin	Community Living	Community living arrangement shall be permitted under this standard as long as their total capacity within any district that does not exceed 25 or 1% of the population of the district, whichever is greater.	When that capacity is reached, no additional community living arrangement shall be permitted within the district until their capacity is reduced or the district's population increases, thus changing the ratio.
Cleveland, Ohio	Halfway Houses	Limits halfway houses to 2 per police district.	
Rochester, Minnesota	Offender Transitional Housing (OTH)	The number of OTH uses within a radius of 1.5 times the distance separation may not exceed 0.5% of the total number of dwelling units for developed neighborhoods within that radius.	
Miami, Florida	Community Based Residential Facilities	Community based residential facilities are not permitted in any census tract where residents of existing community residential homes or community based residential facilities comprise two (2) percent or more of that census tract's current total population as estimated by the City of Miami Planning and Zoning Department.	

Source: City of Cincinnati / University of Cincinnati Survey

Table 6. Regulations Regarding Size Limitations of Shelters—Survey Number 2

City	Facility type	Regulations	Comments
Anchorage, Alaska	Homeless Shelter	150 square feet per resident.	
Cleveland, Ohio	Halfway House	A maximum of 100 residents subject to correctional oversight shall be accommodated.	Limited by the size of the existing or proposed building and all its allocation of space for sleeping quarters, except that the board of zoning adjustment may approve a larger number solely for the reason that the proposal's economical feasibility is tied to such larger number of residents.
Columbus, Ohio	Halfway House	Occupied by no more than 30 residents.	No resident limit on denser areas zoned R6 or higher.
Dallas, Texas	Halfway House	No more than 50 residents permitted.	
Denver, Colorado	Homeless Shelter	No more than 200 beds.	There shall be no more than nine hundred and fifty (950) beds in permanent homeless shelters in any council district.
Des Moines, Iowa	Homeless Shelter	300 square feet of lot size for each resident. A minimum of 80 square feet of usable floor space per bed, and usable floor space of no less than eight feet in any major dimension.	Each such facility shall contain at least one lavatory and one toilet per ten residents or fraction thereof and one tub or shower per 15 residents or fraction thereof. There shall be a minimum of one bathroom with tub or shower, toilet and lavatory on each floor which has resident bedrooms.
Gainesville, Florida	Halfway House	No more than 30 persons can be housed in a 24-hour period.	Residences for destitute people as accessory uses to places of religious assembly can have no more than 15 persons housed in a 24-hour period.
Knoxville, Tennessee	Halfway House	Maximum capacity of five (5) persons.	
Lacey, Washington	Homeless Shelter	No more than 40 residents shall be allowed.	(1) The City may further limit the number of residents as site conditions dictate. (2) The use of a building as a homeless shelter shall not exceed ninety (90) days.
Lawrence, Kansas	Homeless Shelter	Not exceeds 15 persons maximum.	
Mesa, Arizona	Shelter	Limited to 50 beds	
New York City, New York	Homeless shelter	New shelters can't be any larger than 100 beds.	

Table 6 (continued). Regulations Regarding Size Limitations of Shelters—Survey Number 2

City	Facility type	Regulations	Comments
Los Angeles, California	Community Care Facility	Residential facility which serves six or fewer persons.	Shall be considered a family for the purpose. Residential care facilities, family care home, alcoholism or drug abuse recovery facility.
Pasadena, California	Temporary Housing	No more than 10 residents at a time.	Should have at least 1 fully equipped kitchen.
Phillipsburg, New Jersey	Homeless Shelter	Maximum occupancy shall be no greater than 15 persons per site.	
Raleigh, North Carolina	Homeless shelter	40 beds per shelter.	
Red Bluff, California	Homeless Shelter	Maximum of 4 Families, or a maximum of 4 unrelated persons. The maximum number of beds or clients permitted to be served (eating, showering, and or spending the night) nightly shall not exceed 1 per 125 sq. ft. of floor area.	Also require Good Neighbor Plan elements.
Roseville, California	Temporary Shelter	Shall not exceed 12 residents, excluding staff in occupancy.	
Sacramento, California	Shelter	The size of the temporary resident shelter shall be in character with the surrounding neighborhood.	
Shelby, North Carolina	Halfway House	No more than 30 residents.	Maximum of 60 days.
Spokane County, Washington	Halfway House	There shall be no more than 20 residents.	
Wichita, Kansas	Group Homes & Halfway House	Housing no more than 16 persons.	

Source: City of Cincinnati / University of Cincinnati Survey

Of the cities contacted, many reported that they had not completed needs assessments and/or impact studies on homeless shelters prior to implementing regulations. The rationale for creating licensing was because of complaints regarding panhandling, loitering, cleanliness outside of shelters, and public urination (Table 7). The concentration of facilities such as homeless shelters, halfway houses, and soup kitchens was also a concern to

several jurisdictions. Many acknowledged that these uses have a clear social usefulness and value but that they also have undeniable adverse effects on residential environments. In general, based on telephone conversations with representatives from the various municipalities, communities regulating such facilities felt that only a limited number of facilities could be absorbed before neighborhoods would experience significant deterioration in the quality of life (see also Tables 8 and 9).

Table 7. Regulations Regarding Licensing of Shelters—Survey Number 2

City	Facility Type	Regulations
Covington, Kentucky	Addiction Treatment Facility	Licensure for the program operated at the facility must be obtained in accordance with Non-medical alcohol treatment and education center regulations.
Detroit, Michigan	Emergency Homeless Shelter	In 1997 Detroit Michigan adopted The Homeless Shelter Licensing ordinance to ensure that whenever children, women, and men become homeless, they will have decent safe and healthy refuge. The ordinance provides the city with tools to regulate and monitor conditions of emergency homeless shelters.
Marshall Township, Pennsylvania	Halfway House	Halfway house must be licensed where required by an appropriate government agency(ies), and shall be in compliance with all applicable rules and regulations of the licensing body(ies). A copy of any required license must be delivered to the Township prior to beginning the use.
New York City, New York	Homeless Shelter	All shelters must apply for operating license.
Phillipsburg, New Jersey	Homeless Shelter	It shall be unlawful for any person, firm or corporation to operate a Homeless Shelter within the Town of Phillipsburg, without first obtaining a license therefore from the Town of Phillipsburg as hereinafter provided. Licensees can be revoked.
Prescott, Arizona	Halfway House	Whether allowed by right or by Conditional Use Permit, the request shall be evaluated based on occupancy load and parking adequacy. All such transitional housing providers shall register with the Community Development Department to assess whether the use is allowed at a location, or by right or by Conditional Use Permit.
Raleigh, North Carolina	Homeless Shelter	License is approved if it meets building codes and is less than 40 beds.
Spokane County, Washington	Assisted Living Facilities	Licensing is available to eligible sites include emergency shelters, domestic violence shelters, and some transitional housing providers.
	Halfway House	The halfway house shall meet any applicable local licensing for a facility housing inmates in transition from a correctional facility to the community.

Source: City of Cincinnati / University of Cincinnati Survey

Table 8. Regulations Regarding Good Neighbor Plans—Survey Number 2

City	Facility Type	Regulations	Comments
Covington, Kentucky	Youth Shelter	Are appropriate if they meet the criteria listed and unless clear evidence is presented the deleterious impacts involving noise, traffic, safety, or property values will result from the establishment of a shelter at a particular location.	
Des Moines, Iowa	Homeless Shelter & Group Care Facilities	If after issuance of the required permit evidence comes to the attention of the zoning enforcement officer that operation of such facility may be causing unreasonable and chronic traffic congestion in the streets, unreasonable and chronic noise in the neighborhood, or danger to the health, safety and general welfare of its occupants or of occupants of other property in the neighborhood, the zoning enforcement officer shall refer the matter to the board of adjustment. Each such facility shall provide supervision 24 hours a day by persons responsible for the care of the residents.	
Mesa, Arizona	Social Service Facility	Should be located in a manner consistent with existing zoning and land use. Over time a facility location plan should be designed by and approved by, social service providers and the City Council. Proposed new services should be supportive of existing services and should avoid being duplicative of similar programs already in operation. In general services should not be located along main street. [See the discussion section under "Additional Regulations".]	
Minneapolis, Minnesota	Homeless Shelter	Requires a Management Plan to mitigate impacts.	
Red Bluff, California	Homeless Shelter	Requires exterior & interior intake and waiting areas, fencing, max. length of stay, distance separations, lighting along periphery of building and facility, visual barrier that separate activities and operations from public view at all times, 24 hour supervision., capacity limitations.	
Rochester, New York	Homeless Shelter	A litter control program must include at least 2 trash receptacles on site for customer use, located next to walkways. At a minimum, the program must also address daily on site litter pick-up, customer awareness activities, and off site litter pick-up. A loitering control program is required, and must, as a minimum address such things locating telephone booths, benches, tables, and other activity areas that can be viewed and controlled by employees. The person on duty must be able to monitor grounds, facility and resident activities to help prevent theft and physical harm.	Passed in response to State law requiring that homeless shelters be permitted by-right in certain zoning districts. State law allowed standards to be adopted for shelters for operation and capacity.
Roseville, California	Temporary Shelter	The size of the temporary resident shelter shall be in character with the surrounding neighborhood.	

Table 8 (continued). Regulations Regarding Good Neighbor Plans—Survey Number 2

City	Facility Type	Regulations	Comments
San Diego, California	Emergency Center	Requires a number of impact mitigation plans including a loitering control plan to minimize the congregation of overnight residents during daylight hours in the vicinity of the shelter and litter control to provide for the removal of litter in the vicinity of the shelter on a regular basis.	
Spokane County, Washington	Halfway House	Shall demonstrate that the halfway house does not constitute a significant adverse impact to the health, safety and welfare.	
	Homeless Day Center	A communication plan that describes how the provider will communicate with the local community, neighborhood, and business organizations, and with adjacent neighbors on a regular basis, and how community issues concerns will be addressed; plan to minimize loitering in the vicinity of the facility and a litter control plan on the facility on a regular basis.	
	Addiction Treatment Facility	Are appropriate if they meet the criteria listed and unless clear evidence is presented the deleterious impacts involving noise, traffic, safety, or property values will result from the establishment of a shelter at a particular location.	

Source: City of Cincinnati / University of Cincinnati Survey

Table 9. Additional Regulations—Survey Number 2

City	Regulations	Facility Type
Cleveland, Ohio	The rear lot line of the property will have a buffer with adequate fencing and barriers in place to screen and separate adjoining properties, and to prevent access between the properties.	Homeless Shelter
Des Moines, Iowa	If after issuance of the required permit evidence comes to the attention of the zoning enforcement officer that operation of such facility may be causing unreasonable and chronic traffic congestion in the streets, unreasonable and chronic noise in the neighborhood, or danger to the health, safety and general welfare of its occupants or of occupants of other property in the neighborhood, the zoning enforcement officer shall refer the matter to the board of adjustment. Each such facility shall provide supervision 24 hours a day by persons responsible for the care of the residents.	Homeless Shelter & Group Care Facilities
	Separation, spacing and procedural requirements for homeless shelters will be determined by the planning commission so as not to adversely impact the surrounding properties and neighborhood. Unless the commission determines that a different area is more appropriate, a neighborhood shall be defined as an area incorporating all properties lying within one thousand five hundred (1,500) feet of the site for which the permit is requested.	Homeless Shelter

Table 9 (continued). Additional Regulations—Survey Number 2

City	Regulations	Facility Type
Fairfield, California	Shelters must be located in proximity to public transportation and social service facilities.	Homeless Shelter
Lacey, Washington	Because a shelter is a non-traditional living arrangement and therefore provides less privacy and more complex living arrangements that traditional homes, a distance requirement that provides visual separation and buffering from other sensitive land use activities is considered appropriate.	Homeless Shelter
New York City, New York	Homeless and operators must sign a contract that specifies 29 rights and duties of each party including limitation of staying 30 days, seek government housing and welfare assistance, seek employment or medical attention for unhealthy addictions. Operators must be up to housing and health codes, everyone must have a bed and cannot sleep on the floor.	Homeless shelter
Raleigh, North Carolina	Homeless operators must follow zoning and health ordinances of the city.	Homeless shelter
Red Bluff, California	Lighting shall be provided in all parking, exterior (outside) intake and/or waiting areas, outside common areas and along the periphery of the building and facility.	Emergency Homeless Shelter
Roseville, California	The size of the temporary resident shelter shall be in character with the surrounding neighborhood.	Temporary Shelter
San Diego, California	A loitering control plan to minimize the congregation of overnight residents during daylight hours in the vicinity of the shelter and litter control to provide for the removal of litter in the vicinity of the shelter on a regular basis.	Emergency Center
Wilmington, Delaware	Provides standards for shelters and includes spacing requirements.	Emergency Homeless Shelter

Source: City of Cincinnati / University of Cincinnati Survey

Current Practices and Trends

In summarizing how shelters were being regulated, licensed, sited, designed and operated, some "best practices" were identified that grew from the substantial problems of unregulated shelters in cities that had caused harm to the residents, neighborhoods, and the reputation of the city. Findings on homeless shelter practices are grouped into the sections described below.

Rights and responsibilities contracts. Cities that were in the Northeast U.S. had more thorough regulations and standards that were used to address emergency homelessness shelters than other regions. Cities in what is traditionally known as the "rust-belt" region had more clearly defined standards for dealing with this population. In some cases, such as the state of New York, the state constitution mandates that these individuals and families be taken care of and its cities have taken this mandate further. For example, New York City's

extensive network of shelters had drafted contracts that are signed by residents upon entering a public shelter. These contracts inform individuals entering the shelter of their rights and responsibilities as well as repercussions for not following shelter rules. They are guaranteed a host of social services that ends in 30 days. Southern states appear to have far fewer regulatory interventions.

Data collection. Cities are now required to collect more detailed and precise data on the homeless population covering drug and alcohol use, and their medical needs including mental health and disabilities. Many persons experiencing homelessness should have a social worker or health professional to deal with mental/physical health issues, jobs and educational training (Gilderbloom & Appelbaum, 1988; Hopper, 2003). The Homeless Information Management System (HIMS) mandated by HUD requires a minimal amount of information on homeless clients.

Good Neighbor Plans. Good Neighbor Plans were a tool used to ease neighborhood transition (see Table 8). Many cities and jurisdictions felt that a good way to mitigate shelter presence and the "NIMBY" (not in my backyard) effects on housing values of homeless shelters were through Good Neighbor Plans. These plans addressed a variety of issues stemming from the presence of a homeless shelter, including, but not limited to: cleanliness of exterior of shelter, hours of operation, upkeep of shelter facilities and outward appearance, use of drugs/alcohol near premises, the number of homeless permitted outside the shelter, the number of homeless allowed in a shelter and the number of shelters located in a certain locale, and security and safety measures. As part of a Good Neighbor Plan, cities were adopting density regulations that worked to prohibit the concentration of shelters.

Licensing. Licensing and inspection of shelters were implemented is some cities (see Table 7). The licensing requirements varied among the cities.

Zoning regulations. The regulations that cities had adopted regarding homeless shelters had overwhelmingly been promulgated since 2000. Most of the cities specified the distance separating shelters (see Table 4) and the size of the shelter (see Table 6). While early leaders such as New York City and Chicago have had regulations regarding shelters for longer periods of time that other cities, we hypothesized that this is partially because of the larger populations these cities have, as well as their more progressive political tendencies.

Future Research Directions

Perhaps the most striking finding was the wide range of issues addressed by various regulatory regimes. There was clear agreement on some issues, for example, smaller shelters were widely viewed as preferable to larger ones (see Table 2). Another pattern that emerged was that more jurisdictions have developed regulations addressing geographic and spatial characteristics of shelters than the quality of services provided. For example, 59% of the jurisdictions limited the size and capacity of shelters and 61% regulated their location. But just 29% required evaluations of shelters and 37% called for data collection of homeless individuals (see Table 1). Regulations tended to fall into discrete categories, but the range of issues addressed within these categories was as striking, if not more so, than the commonalities. For example, while several communities had Good Neighbor Plans, specific rules varied. Roseville, California, required the size of temporary shelters to be in character with the surrounding community. San Diego had a litter control program. And, Red Bluff required exterior and interior intake and waiting areas (see Table 8).

We plan to expand the data collection and conduct more systematic quantitative analysis to identify what might account for these patterns. Potential predictor variables include the size and region of cities, the racial composition and other socio-economic characteristics of the local population, the political affiliation (e.g. Republican, Democratic, Independent) of local leadership, and the state of local economies. Despite the many unanswered questions, it is clear that homelessness is on the radar screen of virtually all municipalities and at least part of their response is the creation of emergency shelters and promulgation of rules to govern their operations. But, the limitations of many of these efforts is belied by the recent "occupy" protests in which many homeless chose parks with tents instead of shelters.

Conclusions and Policy Considerations

There is a gap in the existing literature on how cities in North America regulate emergency homeless shelters limiting the ability of policy makers to make informed decisions on regulating emergency housing shelters and effectively delivering the services that the client population needs. This paper showed policies and standards of operation for homeless shelters from a broad

cross section of cities in the United States and Canada. This study illustrated what is currently being done to protect residents of homeless shelters from possible health and physical abuse. The study also showed how emergency housing regulations are designed with "good neighbor" policies to protect neighborhoods against a decline in property values and business.

A number of laws and policies have been implemented in North American cities with the goal of protecting the homeless from poor and unsanitary housing conditions. But eliminating homelessness will not be accomplished solely through the regulation of shelters. Consequently, many of these cities are working with shelters to ensure they are able to provide the necessary support to the individuals to find housing, address mental health and addiction issues, as well as training and employment opportunities.

Progressive leaders are recognizing these problems and are calling for regulations to protect individuals experiencing spells of homelessness. Recently there have even been calls across North America to adopt model homeless legislation for cities. Local government has a unique role to play in this work. Sawicki (2009) called for government to be "user oriented" (p. 270). Similarly, Herbert Gans (1993) argued that planners must be "attentive to the goals, preferences and values of the people for and with whom they are making plans and policies" (p. 13). Davidoff (1965) goes further by arguing that planners no longer be neutral and instead advocate for the poor.

This research provides a basis for understanding the current status of the emergency homeless shelter systems in cities in Canada and the United States and the necessity for well-designed policies to improve them. This study did not allow us to measure the effectiveness of these regulations but it provides a good account of what cities are doing to help the homeless and protect neighbors and businesses. The research highlights several key findings. Our first conclusion is that there is a range of policies and regulations that have been adopted to address emergency homeless shelter policies and our second conclusion is that few shelters provided the range of services needed by clients and residents. Following from these conclusions, it is clear that the addition of an emergency homeless shelter to a community requires: that careful consideration be given to providing effective and appropriate health and social service support; the demographics of the homeless population be understood and the type of facilities needed for the

different populations; well thought-out and suitable physical design and location; and, anticipation of the impact on host communities. Homeless shelters cannot be excluded from neighborhoods nor can they be concentrated in a handful of neighborhoods. They must fit within the fabric of a community in order to help transition individuals to healthy self-sufficient lifestyles. Government will find this research helpful in addressing the needs and concerns of the shelter residents. Having a better understanding of regulatory environments can help facilitate a discussion around how shelters can be designed and operated differently. Designing emergency housing requires innovative and flexible thinking to ensure that accommodations are safe, healthy, comfortable, respectful, and that they support independence. This would contribute to the quality of life for residents and surrounding communities. Although government regulation will not ensure that best practices are implemented, it can promote discussion of participatory models to utilize when working with marginalized individuals. With the support of housing advocates and the homeless themselves, several cities have passed a variety of laws and/or implemented a number of policies that protect this population from poor and unsanitary housing conditions. Although it is noted that eliminating homelessness could not be accomplished solely through the regulation of shelters, many of these cities have also worked with shelters to ensure they are able to provide the necessary support to find housing, address mental health and addictions issues, and have access to training and employment opportunities.

Individuals and families experiencing homelessness need a safe and sanitary environment that allows them to rebuild and renew their broken lives. To ensure these rights, government can no longer afford to be neutral. Due to the lack of regulations, this population is at greater risk of contracting airborne diseases, having conflicts with strangers who might have a criminal past, overcrowding, and unsanitary conditions. Obviously children are extremely vulnerable in these shelters. For these reasons, the unregulated emergency homeless shelter might be the most dangerous place in a city. Our research calls for greater action in the management of emergency shelters with mandated operating requirements.

Homelessness, of course, is a multilayered phenomenon caused by various forces ranging from the dynamics of globalization to local political power

struggles. Responding to the many problems associated with homelessness involves far more than the maintenance of emergency shelters that meet local codes. While the stereotypical image of those experiencing homelessness may be a physically or mentally challenged individual and one who often lacks the appropriate values to compete in a modern, competitive society, the causes are in fact more structural than individual. As the National Coalition for the Homeless (2009a) has argued, among the primary causes of homelessness and particularly the rise of homelessness in recent decades are increasing poverty, the erosion of work opportunities, declining public assistance, the foreclosure epidemic, and the increasing lack of affordability of housing. It is the case that those experiencing homelessness are disproportionately likely to require a range of social services, but approximately 40% of this population consists of children under the age of 18 and one out of five adults are employed, though generally in jobs that pay very low wages that are not sufficient to rent even a small apartment (National Coalition for the Homeless, 2009b). Structure, not culture, frames the predominant explanation for homelessness.

Financial stressors raise several questions for local efforts to maintain homeless shelters that comply with local ordinances and provide the services and security that the residents and neighboring communities need. Should local officials maintain and expand the shelters even if they have to compromise the quality of care they provide? Should they vigorously enforce regulations even if the costs of doing so include the closing of some facilities whose operators cannot afford to comply? Operating unsanitary and unsafe shelters does not seem to be a reasonable option. And to what extent does the fact that shelters tend to be in the least desirable neighborhoods, housing a population that is disproportionately non-white, affect commitments to these services and their clients? Would a more aggressive fair housing movement or regional development agenda that breaks down further city/suburban walls make any difference? In some respects these challenges reinforce the wisdom that all politics are local. But in this case, the local problems are rooted in forces above and beyond local resources and decision making. Today, they also reflect a long history of efforts to deal with a range of housing questions.

While this paper has explored current regulations for emergency homeless shelters in North America, it has not explored the impact of these

policies and practices. HUD programs, such as HOPE VI, Housing First, and Choice Neighborhoods, demand that we study the impact of programs on the people in public housing as well as the larger economic impacts on the surrounding areas. All levels of government have a crucial stake in emergency homeless shelters. Due to the fact that this high level of interest exists, we need to evaluate the policies and regulations that are in place for the residents of the emergency homeless shelters as well as the surrounding neighborhoods in order to develop more effective practices. Our research documents the wide range of initiatives that have been passed into law for emergency housing shelters; these policies and practices are part of the lively debate of what the homeless need to protect and renew their lives. Future evaluation research should measure the outcomes of a wide range of heterogeneous emergency shelters to determine what works best as effective housing policy. Funding from all levels of government should mandate that these best practices be followed to ensure that people in these neighborhoods are helped and not hurt.

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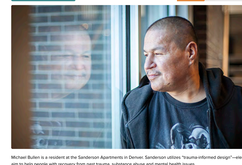
Using Trauma-Informed Design, Buildings Become Tools for Recovery

Back to Newsroom

STORY January 30th, 2020



Michael Bullen is a resident at the Sanderson Apartments in Denver. Sanderson utilizes "trauma-informed design"—elements that aim to help people with recovery from past trauma, substance abuse and mental health issues.

Photos by James Chance

By Dailah Singer

It's less than 30 degrees outside early on a December morning, and the temperature isn't expected to rise much higher. Just a few years ago, Michael Bullen would have been doing everything he could to stay warm and survive while living on the streets in the Athmar Park area, a backpack as his only possession. Divorce initiated what he calls a "downward spiral," a decade-long period during which he roamed between states with no place to call home.

Today, though, the man who prefers to go by Ducky (a childhood nickname bestowed by his mom) is swigging coffee in a pair of khaki shorts and black Nike sneakers, comfortable inside Sanderson Apartments, a 60-unit permanent supportive housing project where he's lived since October 2017.

Bullen, like others in similar situations, never felt safe staying at shelters, which reminded him of jail. During the six years he was unhoused in Denver, Bullen, originally from Minnesota, preferred the autonomy of the streets and tree-lined parks, where he wasn't bothered by others and could live by his own schedule. Changing his circumstances seemed impossible. Even walking into a Burger King to pick up a job application was a stretch, covered as he was in dirt from sleeping on the ground.

"It's hard to stay physically clean when you're living on the street," Bullen said, adding, "I couldn't [see] myself getting a job because I was either sick or drunk all the time."

When Mental Health Center of Denver (MHCD) staff approached Bullen in a park a few years ago about an apartment at Sanderson, he was dumbfounded. As part of an initiative financed by the city's social impact bond for supportive housing, people experiencing homelessness for more than a year, and who were frequent utilizers of services like police, jail and emergency rooms, were added to a list and then assigned to various contracted providers, including MHCD, who then went into the streets to find them.

"I wasn't looking for housing—it seemed so out of reach," Bullen said. "I haven't had my own place for over 10 years."

Sanderson, though, is different. Designed by Davis Partnership Architects of Denver, it was built specifically to house people like Bullen—people experiencing chronic homelessness who regularly interact with both the criminal justice system and emergency medical services and are dealing with substance use and/or mental health issues. The architects and MHCD considered the traumas associated with people's past experiences and responded to them with a layout, colors, furniture and building materials intended to make them feel safe, dignified and supported.

Experts say Sanderson is one of the first buildings in the nation to employ an innovative approach called trauma-informed design: transforming the built environment from a place where people are housed into a tool that can help with the recovery process.

"We know there's a strong link between people's physiological states and their emotional states and their physical environments," said Jill Pable, PhD, project lead at the Florida-based nonprofit Design Resources for Homelessness and one of a small number of people around the country researching this topic. "Trauma-informed design involves creating environments that reflect people's sense of identity and security, their dignity and their self-determination."

Bullen has certainly experienced those impacts, even if he can't point out specific design details. Since moving into Sanderson, Bullen said he's been drinking less, and cooking and socializing more. While his disability case is pending, Bullen is involved in vocational rehabilitation and building an art portfolio to show potential employers.

"I feel secure and relaxed," he said. "I have a little bit more confidence. It feels good paying a little rent, putting a key in the keyhole. You feel like a person."

More than half a million people are considered homeless in the United States. On any given night, around 200,000 of them are unsheltered, sleeping in parks and cars and on sidewalks in cities and towns across the country. The numbers are smaller—but no less stark—when narrowed down to just metro Denver, where nearly 5,800 people experience homelessness on a single evening.

For years, service providers have been shifting toward a trauma-informed approach when working with unhoused people and others with violent, unstable or otherwise troubling backgrounds. That is, recognizing the signs and symptoms of trauma and responding with policies and practices that avoid retraumatization. According to the Substance Abuse and Mental Health Services Administration, 61% of men and 51% of women in this country have been exposed to at least one traumatic event in their lifetimes (such as suffering physical abuse as a child, or having a family member incarcerated), while 90% of people interacting with public behavioral health care settings have experienced trauma.

Trauma-informed design is an extension of that practice, rooted in the belief that an unfriendly built environment—dark stairwells, clinical-looking spaces, black metal bed frames—can be triggering for people with a history of trauma.

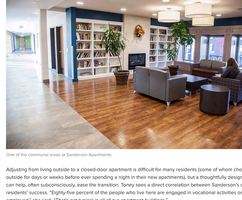
"Housing is not as simple as it sounds," says Jennifer Wilson, a social worker and research associate with the Center for Housing and Homelessness Research at the University of Denver. "You don't just take someone from the experience of homelessness and give them an apartment and a key, and that's the end of it and stability has arrived. The trauma of homelessness and whatever the lived experience might have been for that person is so significant that that apartment, that key, that front door, those noises, the lights—they pose their own set of challenges."

Trauma-informed dwellings don't solve all of those concerns, but they can help soften the impact. "We mitigate triggers for past traumas with well-lit, wide hallways and open staircases. We mitigate anxiety by using color and wayfinding," said JoAnn Toney, MHCD's director of housing and residential services. "It's all about mitigating [adverse] life experiences so we can try to provide a secure environment that's open, safe and inviting."

These venues are deliberately designed to be deinstitutionalized and appear barrier-free (though plenty of protective features are in place) and to instill a sense of control and self-worth in residents. They are also intended to provide privacy while simultaneously fostering a sense of community. That means addressing everything from designing flexible, easy-to-navigate spaces to the selection of colors and lighting to the use of natural materials.

"Well-designed built places can help people's perceptions of themselves, perceptions of other people, and certainly their perceptions of their situations," Pable said. "When you have a space that looks better, it sends a very understandable message of, 'People care.' If people care, that's sending a message of, 'People really do want me to get better.'"

At Sanderson Apartments, that message is imparted in countless ways. Wider-than-usual corridors, lined with windows, create open sight lines, so residents and staff can quickly gain a sense of what's around. The 440-square-foot units don't have doors to the bedrooms, and there's a cutout in the wall between the bedrooms and living spaces so residents can immediately see if the space is secure upon entering. Community, dining and exercise rooms offer places to congregate and are all located near the front desk, where staff sit.



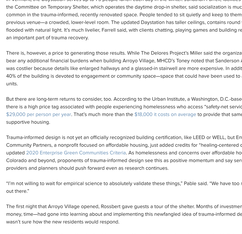
One of the communal areas at Sanderson Apartments.

Adjusting from living outside to a closed-door apartment is difficult for many residents (some of whom choose to sleep outside for days or weeks before ever spending a night in their new apartments), but a thoughtfully designed building can help, often subconsciously, ease the transition. Toney sees a direct correlation between Sanderson's design and residents' success. "Eighty-five percent of the people who live here are engaged in vocational activities or are employed," she said. "That's not typical in all of our apartment buildings."

Four miles north, Arroyo Village offers another example of trauma-informed design. Run by The Delores Project and Rocky Mountain Communities, the development, which encompasses a shelter exclusively for women and transgender people, low-income permanent supportive housing and affordable workforce housing for individuals and families, opened in March 2019.

Couches in its permanent supportive-housing units are extra wide so that those who aren't yet ready to sleep in a bed have another option. Among other amenities, the shelter offers lockers for storing personal belongings, privacy walls between the bunks, outlets and reading lamps at every bed, and a bathroom with vanity mirrors where the women like to congregate. Soothing paint colors were chosen, in hues of sage and lavender.

"We really wanted to deinstitutionalize a shelter and make it more of a home-like environment," said The Delores Project CEO Stephanie Miller. "When our guests… come through the doors, it really does look like a living room. There's no intake desk or check-in desk. You come in and there are big sofas and lounge chairs. A flat-screen TV. Rocking chairs for self-soothing. Lots of windows."



The paint and furniture colors in the rooms at Arroyo Village in Denver purposefully include hues like sage and lavender.

Sandy Barrows moved from Arroyo Village's shelter into a supportive housing apartment in July.

"I'm reconnecting with who I was—now that I came home," the 59-year-old said, snug on her couch, a side table to her right barely visible under dozens of stuffed animals (her "babies"). "I feel safe. I know when coming in [my apartment] that no one's going to be in here."

It took a while for Barrows to stop carrying her backpack everywhere and checking that all of her belongings were precisely where she left them. Barrows experienced homelessness for five years after suffering a mental breakdown; she slept mostly in her 1992 Chevy truck, learning over time where to park to avoid being woken by police flashlights in the middle of the night. Now, she's on disability and taking her medications and seeing a therapist regularly; she finds joy in paying her rent every month. Her packed apartment is on the fourth floor, a quarter she likes to refer to as the "penthouse area."

The community was designed by Denver-based Shopworks Architecture, a leader in this area that has worked on more than a dozen trauma-informed projects. Arroyo Village was the group's first intentional, versus intuitive, effort in this space.

"Some of the process of designing around trauma really involves a phase before there's even the idea of a building, saying, 'What are we trying to accomplish here? Who's it for? What does success look and feel like?'" said Chad Holtzinger, president and architect at Shopworks, adding that those questions need to be asked both of the residents or future clients and the providers. "They may make informed decisions, not just lucky ones."

These projects aren't just happening in Colorado, though. More planners, architects, developers and interior designers across the country are considering trauma-informed design in their work. An affordable housing project for formerly homeless veterans that integrated design firm Mithun is working on in San Francisco will be structured around a central courtyard filled with trees to provide both a visual and physical connection to nature. In other projects, the team's trauma-informed design strategies include reducing noise from elevators and other equipment, and lessening the cognitive load on residents by, for example, choosing carpets with more mild patterns.

"They're not major changes to design," said Erin Christensen Ishizaki, a partner at Mithun. "Small details can make a big difference in how people perceive space and their control over it."

Research into the efficacy of trauma-informed design is still in the nascent stages, so much of what proponents point to as successes are anecdotal; and much of what has been accomplished thus far has been based on instinctual understandings of how people use and respond to the built environment.

Yet Shopworks, in conjunction with DU's Center for Housing and Homelessness Research, has conducted some initial point-in-time data collection at three sites. (They're also working on a white paper and a preliminary model for trauma-informed design that includes what they're calling the "four Cs of building for dignity"—choice, control, comfort and community.) The groups are still sorting through the numbers, but what they've found so far is promising. For example, of the 29 people who moved into Arroyo Village's permanent supportive housing between March 20 and April 24 last year, five gained part-time employment within three months, two earned promotions or pay increases, and four who entered with employment have maintained that employment.

Conscious, thoughtful design can also have an impact on staff. When Shopworks renovated the Lerados School for children with intellectual and developmental disabilities in Denver's north Globeville neighborhood, the firm added an employee break room. Subsequently, staff turnover dropped by 25%. The kids benefited from the updated design, too. Larger windows, the addition of soft-walled breakout rooms for youth who need to relieve stress, and new acoustic panels to soak up noise helped lead to a decrease in crisis behavior and incident rates.

Still, "we need more research," admitted Shopworks's COO (and former Delores Project deputy director) Laura Rossbert. "I think those numbers are impressive, but it's not something I can claim is solely because it was a trauma-informed design building." Rossbert did point out, however, that the Lerados design improvements occurred only after a new building came online, with the same program, children and staff involved.

Elsewhere, after renovations at Craig Hospital in Englewood, which specializes in spinal cord injury and brain injury rehabilitation, were completed, there was a 10% average overall reduction in length of stay among patients. Among the changes were the addition of a sensory-healing garden; updated hallway lighting that uses warm, indirect light so patients in wheelchairs aren't looking up into glaring ceiling lights; and widened hallways to create more sitting and interaction areas for patients and their families.

"In a few different areas across the country, we've heard reports saying patients have been less agitated, more willing to participate in their therapy sessions, and they've needed less pain medication," says Brenna Costello, principal and health care studio leader for SmithGroup, a national design firm that worked on the Craig project, and board member for the Academy of Architecture for Health.

In Vermont, the Daystation serves up to 75 people lunch each day in the winter. Jonathan Farrell, facilities director for the Committee on Temporary Shelter, which operates the daytime drop-in shelter, said socialization is much more common in the trauma-informed, recently renovated space. People tended to sit quietly and keep to themselves in the previous venue—a crowded, lower-level room. The updated Daystation has taller ceilings, contains round tables and is flooded with natural light. It's much livelier, Farrell said, with clients chatting, playing games and building relationships, an important part of trauma recovery.

There is, however, a price to generating those results. While The Delores Project's Miller said the organization didn't bear any additional financial burdens when building Arroyo Village, MHCD's Toney noted that Sanderson Apartments was costlier because details like enlarged hallways and a glassed-in apartment were more expensive. In addition, about 40% of the building is devoted to engagement or community space—space that could have been used to add rentable units.

But there are long-term returns to consider, too. According to the Urban Institute, a Washington, D.C.-based think tank, there is a high price tag associated with people experiencing homelessness who access "safety-net services": about $29,000 per person per year. That's much more than the $18,000 it costs on average to provide that same person with supportive housing.

Trauma-informed design is not yet an officially recognized building certification, like LEED or WELL, but Enterprises Community Partners, a nonprofit focused on affordable housing, just added credits for "healing-centered design" to its updated 2020 Enterprise Green Communities Criteria. As homelessness and concerns over affordable housing grow in Colorado and beyond, proponents of trauma-informed design see this as positive momentum and say service providers and planners should push forward even as research continues.

"I'm not willing to wait for empirical science to absolutely validate these things," Pable said. "We have too much need out there."

The first night that Arroyo Village opened, Rossbert gave guests a tour of the shelter. Months of investment—work, money, time—had gone into learning about and implementing this newfangled idea of trauma-informed design. She wasn't sure how the new residents would respond.

When they sat down to dinner, Rossbert got her answer. One of the women turned to her and said, "I don't feel like I'm in a shelter. I feel like I'm home."

Dailah Singer
Writer and Editor
Denver, Colorado

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Addendum to earlier email re: TIC and shelter design

Sally Bowden-Schaible
Aug 21, 2021, 4:00:33 PM (yesterday)
to planni...@portlandmaine.gov

To the Planning Board:

I wanted to add a couple of points to my earlier email to you. *Before any approval is given*, it is important to *thoroughly review* the research related to Trauma-Informed Care and recommended TIC shelter design, and it is important to mandate that the shelter design incorporate TIC design, as well as TIC staffing approaches, in the ***required Management and Staffing plans***. (See attachments below for reference)

And actually, rather taking a pause in the approval process , I urge you to ***deny the permit*** for the proposed location on Riverside Street because the site/location is *not conducive* to the use proposed. As I noted in my earlier email, one of the reasons (not the only) is that it abuts the trailhead of the Portland Trail system. This presents great safety concerns for shelter guests as well as for others using the trails. However, if the Planning Board does approve DC and the City's plan, *mitigation measures need to be required,* such as off-site monitoring, etc, to ensure the safety of shelter guests and the public along the trails.

Thank you.

Sally Bowden-Schaible, MS, LCPC, CCMHC
1sallybs@gmail.com
207.939.3254

27 Birchvale Dr
Portland, ME 04102

	2020			2021		
	Intakes	% Prtland Residents	Ag OSS night	Total OSS	% Portland Residents	Avg OSS night
Jan	108	34%		83	34%	182
Feb	79	29%	175	8	63%	113
March	95	18%	169	53	43%	104
Apr	0	--	113+35*	119	24%	103
May	0	--	92+46*	75	31%	167
June	1	0%	75+44*	95	17%	169
July	18	50%	73+15*	--		
Aug	75	39%	84	--		
Sept	32	38%	100	--		
Oct	56	55%	104	--		
Nov	52	37%		--		
Dec	84	35%		--		

Beds by

-

-

William Higgins
8:47 AM (1 hour ago)

To those, it may concern. I have made some reviews of the submittal and make the following comments by message. I will undoubtedly have others prior to public comment.

I was homeless here at Oxford Street Shelter four times between 2002 and 2009, with one of those periods nearly three years in length. I make the comments as one with those personal experiences.

(A) In the Homeless Services Center Management Plan Exhibit 4 (Resident Contract), 5 (Reasonable Rules), and 6 (Neighborhood Engagement Strategy) are what exists for the current Oxford Street Shelter. What changes will take place on these documents? Should that not be part of another workshop?

(B) What is the storage capacity of each of the 220 Individual Storage Lockers (in cubic feet)? It is very difficult to see on the drawing, but it could be a 1-foot by 1-foot space with either two or three lockers vertically.

(C) In the dorms, will beds be assigned? Is there some planned secure storage for individuals to leave their property? Under-bed storage is used extensively in the military for personal belongings (clothing, footwear, outerwear, etc.) With assigned beds, individuals need not strip beds every day.

(D) Note was made at the Emergency Shelter Assessment Committee meeting on August 19th that a shelter operations plan had been submitted to Maine Housing for review. It is not available for review as part of the documentation presented. This is a different location than Oxford Street Shelter, wherein there are additional potential hazards to residents that staff has not considered. As one with Lived Experience of Homelessness, I would want that plan a subject of another workshop.

(E) I have a concern relevant to disruption along the open areas causing a greater effect on others surrounding that individual. While Oxford Street held approximately 150 beds, they were segmented into seven areas. The plan shows some dividers to set up four-bed pods, but what is the height of those dividers?

Sincerely,

William E Higgins Jr.
Executive Director
Homeless Advocacy for All
68 High Street
Portland, ME 04101
(207) 272-0199

Facebook Group - For all interested in global homelessness (not just those with prior personal experience of homelessness)
https://www.facebook.com/groups/158304874893138/

Facebook Page - https://www.facebook.com/Homeless-Advocacy-for-All-1906793862752116/

LinkedIn Page - https://www.linkedin.com/company/27162111/

Ha4aLL Missions - A) Grow advocacy, understanding, and improve general public perceptions regarding individuals that experience homelessness; (B) Provide current and accurate information to these individuals; (C) Encourage service providers to work together removing barriers between them; (D) Improve service provision through process improvement.

Ha4aLL Visions - Embolden a Revolution in homeless services where homelessness becomes situational, of short duration, and not recur. For that to be accomplished we will focus efforts as described below.
(A) Have those with personal experience of all types of homelessness (Individuals, Families, Veteran, Domestic Violence, Adolescent, and LGBTQ+) share valued input, through Continua of Care (CoC's) in the USA, or in similar regulatory bodies for other nations. This must not be as tokens but as valued and compensated resources. (B) Recruit professionals with diverse Leadership and process improvement experience to CoC's, CoC's Committees, and CoC's Board of Directors. Consultants can provide similar services to the Department of Housing and Urban Development (HUD), as they do for corporations. For service providers, engage staff and those served for guidance on current operations, and methods of improvement.
(C) For Congress, States and Municipalities, provide funding to close "the gap" between available affordable and low-income housing, and what is needed. One major cause of homelessness is the lack of affordable housing. Require all communities to build this housing, where those housed (or their children) have an equal economic and educational opportunity...

Concerns over Riverside Shelter

Zack Barowitz
8:18 AM
to Planning Board

Chair Mazer and Honorable Members of the Planning Board:

Thank you for considering the application of the Homeless Services Center. As this is a large and complex project I urge the Board to give the highest level of scrutiny to all aspects of the proposal. Some areas of concern include:

- **Health:** As we have seen with the Covid pandemic disease spreads quickly to concentrations of the most vulnerable people. It should be noted that disease is not limited to viral infections but substance abuse, mental illness, and other affiliations that appear at higher rates among homeless populations. *The project is too large.*
- **Transportation:** This location is very difficult to access from downtown and other service locations; a fully flushed and vetted transportation plan is necessary for the approval of this use. Personally, I do not see a way for this site to meet the access needs of the population who will be using it. *The project is too remote.*
- **Supporting Data:** The applicant has not provided sufficient data to support the efficacy of the project neither in terms of cost nor level of care. Nor has the applicant provided any data to support that a smaller-scattered shelter approach would be more expensive or less effective. The project seems conceived not for the benefit of shelter guests but to minimize community pushback. *The project is unlikely to succeed.*

This project is a legacy decision, one that citizens and future leaders will be dealing with for many years; please consider whether or not it is the right choice for now and for the future.

Cordially,
Zack Barowitz

--
207-838-6120
917-696-5649
ZacharyBarowitz.com

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GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

June 18, 2021

Ms. Christine Grimando
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application
Applicants: DC Predevelopment LLC and City of Portland

Dear Christine:

On behalf of **DC Predevelopment LLC (Applicant) and the City of Portland (Co-applicant),** we are pleased to provide the accompanying Major Site Plan Application package related to the proposed Homeless Service Center located at 654 Riverside Street in Portland, ME. This submission package is intended to meet the City's Submission Requirements as outlined in the Major Site Plan Application procedures. This submittal provides information in support of the Portland Land Use Code Article 14 – Major Site Plan Standards. We understand that the City of Portland will be responsible for completing the Third Amended Subdivision Plan[1] for the project area.

The City has engaged DC Predevelopment LLC in response to RFP #21041[2]. The development will include a 51,690± SF Homeless Service Center to include temporary residential use with a kitchen, dining area, staff offices, and a health clinic as well as parking area, outdoor recreational space and courtyard areas. The facility will have the capacity for up to 200 guests.

The development effort will include a team consisting of the following:

- Property Owner – City of Portland
- Applicant –DC Predevelopment LLC and City of Portland
- Architect – Winton Scott Architects
- Design Build Contractor – Cianbro
- Homeless Services Consultant – Amistad
- Civil Engineering and Permitting – Gorrill Palmer
- Landscape Design and planning – ALA Architects
- Sustainability Consultants – Thornton Tomasetti
- Geotechnical Engineer – SW Cole Engineering

[1] See Second Amended Riverside Subdivision CCRD Plan Book 218, page 199, specifically for Lot 4-2
[2] See Council Order 281-20/21 approving and authorizing the first letter agreement with DC Collaborative

EXISTING CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.

- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[3]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Riverside Street in the vicinity of the proposed site entrance includes single lane travel ways in each direction in addition to a center two-way left turn lane that benefits the many property driveways located along the street. There are variable width paved shoulders and curbing on each side of the street. Paved sidewalks exist on each side of the street except for a length or approximately 880 LF just north of the proposed site entrance, towards outer Forest Avenue.

[3] See CCRD Book 27677, page 125

Riverside Street Entrance Location

PROPOSED PROJECT

As taken from the RFP requirements the project is intended to support the following elements:

- Covered entryway
- Security office adjacent to main entrance with space for CCTV monitors
- Double entry access (enough space to do searches before shelter guests may enter shelter)
- 200-space locker room attached to the building with internal and external entry –unheated
- Multi-purpose room/dining area with 200 seating capacity. Area for buffet style serving and access to kitchen
- Kitchen with room/equipment to serve 200, food prep area for breakfast, lunch, and dinner items, salads, soups, sandwiches, materials. Walk-ins, storage, freezers to hold enough prepared meals to serve 200 one hot meal per day - for up to one week
- Staff office area – 16 offices, conference room, copy/office equipment and storage areas, male/women bathrooms, gender neutral bathroom with shower, break room, reception area, waiting area, server room and electrical room – direct access to parking area.
- 15-20 staff lockers
- Large dormitory for male guests – 144 raised beds – 6 feet between, Female – 60 beds.
- All beds to have electrical outlets next to beds.
- Observation area where staff has a direct line of vision into all sleeping space and multipurpose space – containing a small meeting room and office large enough to accommodate wheel-chairs. Areas for computers and printers.
- Laundry/utility room sufficient to provide on-site laundry for residents and general facility needs
- Bicycle storage

- Men/Women/ Gender Neutral bathrooms/showers
- Three to four multi-purpose meeting rooms for service center guests having meetings, classes, activities, etc.
- Storage areas and a mechanical room
- Maintenance room
- Exterior trash compactor and appropriate space for recyclables and compostable waste
- An enclosed court-yard sufficient to accommodate residents and accessible from inside the service center only (emergency exit directly outside but alarmed). Partial cover.
- Parking for 28-30 vehicles
- Attached Health Clinic with direct access from inside the service center and also a separate entrance from outside the service center including:
    - 4 exam rooms
    - Reception and waiting area
    - Patient/staff bathrooms
    - Lab
    - Storage
    - 2 offices
    - Isolation room

These activities will involve site work construction including building and foundation work, utilities construction including water, sewer, drainage, gas, power, and/or communications extensions into the buildings and landscaping. We understand that the site can be served by public infrastructure for water, sewer, electrical and communications, subject to confirmation as well as confirm the availability of natural gas to the site.

For purposes of establishing the use, the Homeless Services Center is considered an Emergency Shelter which is a Conditional Use within the IM/IH zones. Based upon the information provided by the City of Portland the following will be required as part of this development:

- An Easement is required to access and maintain the nearby City Communication Tower;
- An Easement at the site entrance is required to access Portland Trails network to the Presumpscot River;
- The City is responsible for amending the Riverside Street Industrial Subdivision Plan to include the subject parcel (7.01 acre Lot 4-2.); and
- Property to remain in City ownership.

The Major Site Plan and Conditional Use Applications are made part of this current submission.

In accordance with Section 6.5.6 Supplemental use-specific conditional use standards part B pertaining to Emergency shelters we offer the following information:

B. Emergency Shelters

1. *The facility shall provide adequate space for conducting security searches and other assessments.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

2. *The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

3. *A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

4. *Adequate access to and from METRO service shall be provided. The facility shall be within a ¼ mile of a METRO line, or shall be within ½ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.*

   Supporting Evidence: The site is located approximately 0.3 mile from the transit stops of the METRO Route 2 along Forest Avenue. The building will provide for indoor space to permit shelter guests day shelter.

5. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

6. *Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.*

   Supporting evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

   Supporting Evidence: The Site plan contains a plaza at the front of the building where guests may congregate. A second plaza area is also located to the south side of the building and that will contain space for guest to congregate, socialize and participate in activities.

CLOSURE

As outlined in the Major Site Plan submission requirements and checklists, we will upload the following materials upon authorization by City staff:

- General Application Documents
  - Cover Letter/Project Description/Operational Key Plan/Operations Management Plan
  - Major Site Plan Application Checklist/Conditional Use Application
  - Right, Title and Interest
  - Zoning Assessment
  - Existing and/or Proposed Easements (please see Survey Plan)
  - Waiver Request and Waiver Table
  - Financial Capacity
  - Technical Capability
- Transportation
  - Transportation Narrative
- Environmental and Landscape Features & Stormwater
  - Narrative to Address Standards
- Public Infrastructure and Safety
  - Narrative to Address Standards
- Site Design
  - Narrative to Address Standards
- Construction Management Plan
- Site and Architectural Plans

On behalf of **DC Predevelopment LLC and the City of Portland,** we look forward to your continued assistance on the project and we look forward to the next available workshop meeting with the Planning Board. As is required, once we complete the Planning Board workshop, the applicant will be conducting a Neighborhood Meeting(s) We anticipate this meeting will be conducted prior to the Public Hearing.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Attachments

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigridson, Boulos Co.
Kristen Dow, City of Portland

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City of Portland Homeless Services Center

Management Plan

I. Overview:

The City of Portland Homeless Services Center (HSC) at 654 Riverside Street will be a state-of-the-art, one-story emergency shelter that will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18. The HSC will be open 24 hours per day, 7 days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 1** for a comprehensive list of services.

The HSC will further the City's mission by providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. The HSC offers a space where our clients stay and staff can work in a respectful and safe environment. In collaboration with community partners, we will provide wide-ranging services to our consumers with compassion, dignity, and respect.

As with our current shelter, the HSC will serve a diverse population. Women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, and those struggling with substance use and mental health who are unhoused. The services at the HSC will optimize the services of the smaller specialized shelters through a robust referral process that maximizes resources across our system. This system offers the highest level of service by those most equipped to help.

The HSC is a one story building easily accessible to all. Our clients will be able to access the facility throughout the day and will not need to leave with their belongings, something they have been subject to in the past. Our large day space will have an area for meal services including a fully equipped kitchen where staff can prepare and serve meals. Indoor storage lockers, bathrooms with showers and laundry services that are all available to clients. Sleeping areas will have beds where each individual has a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The quad-bed pod layout provides increased ability to social distance when necessary and additional privacy.

The HSC will have a full service federally qualified health clinic (FQHC) operated by Greater Portland Health. The clinic will offer medical, mental health, substance use treatment and dental services on site. Also provided are small group rooms and offices which are utilized for peer support, specialized services and community providers to create wrap-around services for our clients. Please see **Exhibit 2** for a list of community partners.

II. Staffing and Management Responsibilities

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three Managers there is on site coverage 6am-11pm, as well as 24/7 on-call rotation. In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage.

The HSC will be staffed 24/7 by our shelter attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to everyday operations. They will assist new clients with orientation to the facility and assist in connecting clients to our housing team, as well as referring to other community partners on site to include the FQHC.

The HSC will have a team of dedicated housing counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. The Homeless Service Center offers housing services to all clients accessing the service center and will have housing staff onsite 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[1]

A key part of our housing team are the housing retention specialists. They connect with clients as they transition from the shelter. In support of the housing first model the specialist wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, including connecting to community meals, medical care and case management services. Our housing retention specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for reporting, filing, and scheduling. They also work with management on specialized tasks, giving great attention to detail and a high level of accuracy.

[1] "Housing First"*National Alliance to End Homelessness* April 20, 2016 https://endhomelessness.org/resource/housing-first/

Our facilities team is an integral part of ensuring that the space is a safe, clean and inviting place for clients to access and staff to work. We have facilities staff onsite from 6am-2am. Our facilities team respond to all maintenance emergencies and work with all maintenance vendors to ensure our building and grounds are operating at peak condition. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security staff will be located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. In addition to job specific training, our security staff also receive all training available to our full-time team detailed below.

The management team will continue to meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For an exhaustive list please see **Exhibit 3.**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the HSC.

The HSC will have an entryway off of Riverside Street down a well-lit and inviting walking path. There is a dual door system, as well as an external entrance to locker facilities. The dual door system will be monitored by security staff, who will also have access to view both external and internal security cameras on site. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on site.

There will be an enclosed side courtyard for clients who want to access a private outdoor space. The area contains space for outdoor eating and exercise as well as raised garden beds for clients to participate in growing vegetables and flowers. As an extension of our fenced-in courtyard, there will be fencing along the back of the property running parallel to the river to provide increased safety for our clients.

IV. Transportation

Homeless Services Center will include a City operated van as a shuttle service to clients. The shuttle will operate throughout the day to stop at service centers for appointments as well as get back to the facility. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize. In addition to the shuttle van the Homeless Services Center will continue the long standing practices of Oxford Street by using taxi vouchers, metro, and our current vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the HSC will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The HSC premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Clear sight lines will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

Cameras will be mounted externally for easy surveillance of the perimeter. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks. Camera monitors will be visible from the security office, which will be staffed. Cameras are also mounted in internal common spaces. Camera placement, lighting and staff monitoring recommendations came from a 2018 client survey.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 4 ***current contract) which clearly outlines the shelter rules and behavior expectations. This is reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire shelter population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The HSC presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed structural design impacts client success as well as the neighboring community. This HSC was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Greater Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 5** *current policy). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's Oxford Street Shelter Staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding being a good neighbor at intake. Additionally, we currently have a Neighborhood Engagement Strategy (please see **Exhibit 6** *current policy) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect HSC surroundings, the neighborhood and any neighborhood needs or concerns.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As mentioned above, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. The HSC staff will also have a 24 hour hotline (phone number) that connects neighbors

directly to the Homeless Service Center staff. Concerned neighbors are invited to call and discuss any issue, concern or compliment. Staff would also welcome the opportunity to attend any Neighborhood Association meetings.

IX. Monitoring:

The HSC management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee.

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly.

Exhibit 1: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Husky line
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Meals
- On-site health care clinic
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services

Exhibit 2: Service Providers Planning to Offer Services or Outreach On-Site[2]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - Public Health
        - Mobile Medical Project
        - Needle Exchange Program (NEP)
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[2] This list appears in alphanumeric order.

Exhibit 3: Staff Training and Professional Development[3]

- Anti-Trafficking Training
- Bloodborne Pathogens training
- Cardiac Science: AED All Staff Training
- Customer Service Training
- Diversity and Inclusion Workshop
- Emergency Action Plan training
- Equal Access to Housing training by GLAD
- First Aid and CPR
- General Assistance Training
- HMIS training
- Housing Training for Supervisors
- In their Shoes Refugee Training
- Introduction to Cultural Competency
- Kepro Training
- Language Access Training
- Mental Health First Aid Training
- Military Culture 101
- Munis Training
- Narcan/Overdose Reversal/Response Training
- National Alliance to End Homelessness Conference
- New Employee Orientation
- New Per Diem Training
- Public Charge Training by ILAP
- Rapid Resolution Housing Training
- Reasonable Suspicion for Supervisors
- Serious accident reporting
- Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health
- Tyler Training
- Understanding and Supporting LGBTQ Individuals
- Verbal Judo Training
- Violence Against Women Act training by Through These Doors
- Workers Compensation for supervisors

[3] This list appears in alphanumeric order.

Exhibit 4: Resident Contract

GUEST CONTRACT

The Oxford Street Shelter is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our Shelter. Any violations of our Shelter safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the shelter building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the shelter building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the shelter building or on the premises is strictly prohibited and could be grounds for restriction from access to shelter.
- **Weapons of any kind are not allowed in the shelter building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into any of the shelter buildings, waiting areas or overflow sites. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access to shelter.**
- No use of profanity/swearing. No loud music on property. No horseplay or aggressive behavior/language on property.
- **Use of inappropriate speech can result in restriction from shelter access. The shelter has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The shelter has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction from shelter access.**
- Sexual activity of any kind is not permitted in the shelter or on shelter grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the shelter and on the grounds. This includes wearing shoes while moving around the shelter.
- Cell phones must be silenced or turned off while in the building. Guest phones are available for use during daytime hours. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**

- Good personal hygiene is a priority. Showers are available after check in. Personal hygiene items are available upon request from staff at the front desk. The available personal hygiene items include: soap (in the showers), towels, toilet paper, shaving cream, toothbrushes, toothpaste, and combs.
- Outdoor restrooms are available between 8am & 8pm daily.
- Blankets, towels and linen must be returned and placed in the bins at the front desk on the 1st floor and may not be removed from the shelter.
- Personal linens such as: blankets, sheets and pillows, are not permitted in the building and are not to be used in the dorms.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- The shelter curfew (lights out) is at 8:30pm.
- Electronic devices that emit light and/or noise are not permitted to be used in the Shelter after lights out (8:30pm). Devices that do not emit light and are used with headphones and do not disturb other shelter guests may be permitted at the discretion of shelter management or the supervisor on duty.
- Once you have checked in and have been assigned a bed, you may leave the building but stay on property for up to 30 minutes. If you leave the building for more than 30 minutes, you will be considered to have left for the night. If others are waiting for bed space, the bed you were assigned may be reassigned to the next person waiting. If at any time you leave property you are at risk of having your bed stripped and reassigned. If you leave before 11pm and return you may be checked back in once. If you leave after 11pm you will not be checked back in.
- The shelter does not allow check-ins past 2am.
- All guests must be out of bed no later than 7:30am (earlier in some areas).
- The City is not responsible for lost and stolen belongings. Any items left behind or unattended will be discarded immediately. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- Shelter staff is not permitted to hold, monitor or administer medications for you. If you have medication that must be refrigerated, you will be able to store your medication in a refrigerator designated for medication storage only. You store your medications in this refrigerator at your own risk.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Lockers are available onsite. Please see a staff member to sign up. Lockers are only accessible from 5am-6am, 9am-10am, 1pm-2pm and from 8pm-9pm daily. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- Day services are available from 8:30am-3:30pm. You must check in on the ramp side of the property.
- The shelter dayroom is open Monday-Friday from 3:30pm-7:30pm. Hours may vary on weekends and holidays, or in case of inclement weather.
- Shelter ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests must attend housing orientation the day following their intake to the shelter for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please stay out of the street if outside of the courtyard area & respect our neighbors and neighborhood at all times.

Agreements

- I hereby accept shelter at the City of Portland Social Services Division Oxford Street Shelter and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.
- I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.
- I authorize the Social Services Division Oxford Street Shelter to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.
- I understand that Shelter management may restrict my access to Shelter if I turn down an option for housing.
- I understand that Shelter Staff and/or management may restrict my access to the Shelter, dayroom and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff relating to staff at the Shelter.

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 5: Reasonable Rules

OXFORD STREET SHELTER

SHELTER POLICY – REASONABLE RULES

The **Oxford Street Shelter** is a City run shelter for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in City run shelters. In addition, the City reserves the right to refuse admission to the shelter to any individual whose presence in the shelter is determined by the City to pose a danger to other individuals residing in the shelter or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in any shelter facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to shelter facilities or property or neighborhood
- Smoking is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 6: Neighborhood Engagement Strategy

OXFORD STREET SHELTER

Neighborhood Engagement Strategy

Staff of the **Oxford Street Shelter** are committed to maintaining a positive relationship with our surrounding neighbors.

Staff engagement to ensure that our program is maintaining a positive influence in the community:

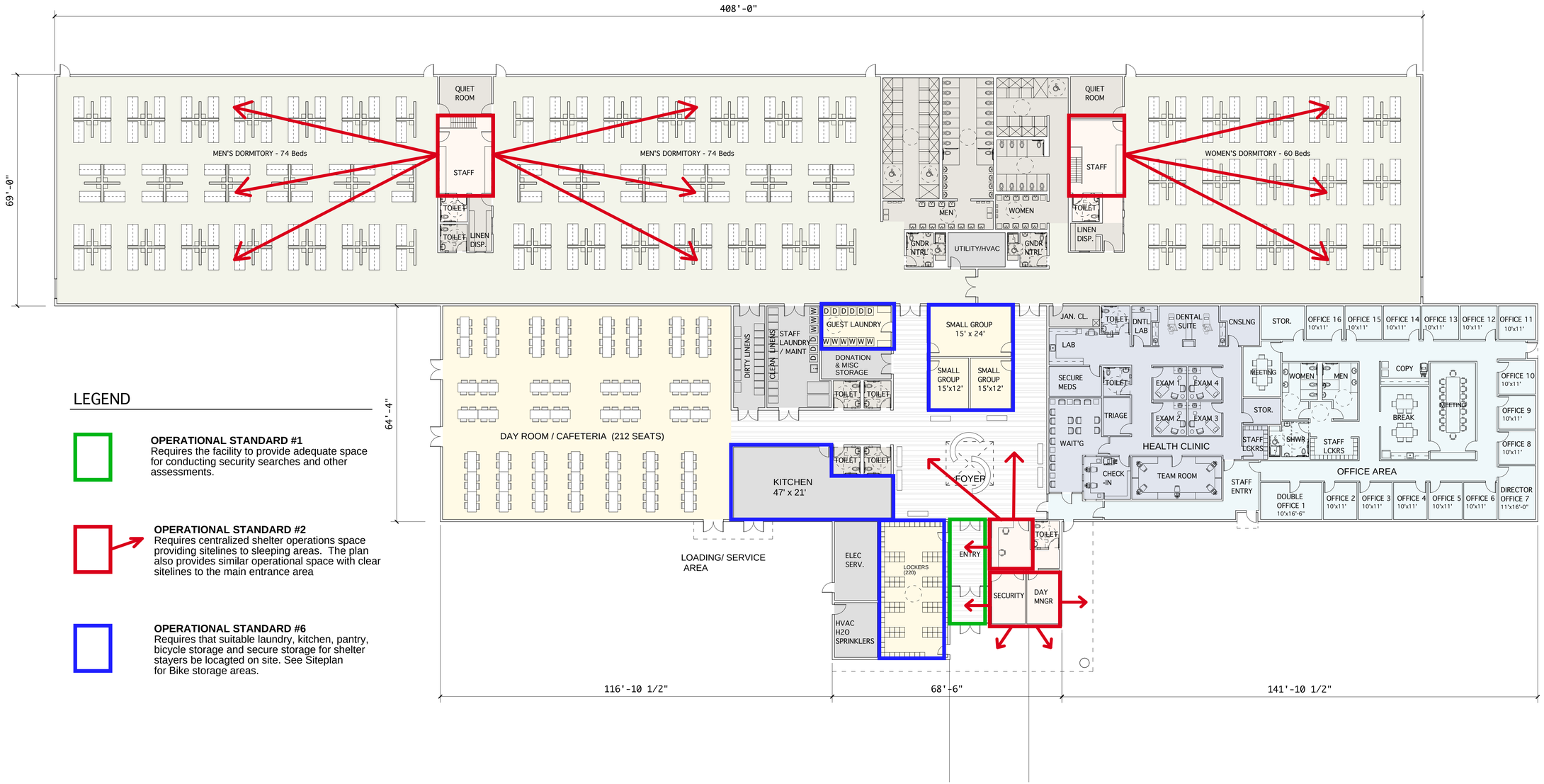
Staff maintain perimeter checks throughout the neighborhood on all of our 24 hour shifts. Staff have built and maintained good relationships with both clients and our neighbors and can assist in neighborhood issues as they arise.

The shelter runs a 24 hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving shelter guests along from neighbor's front steps, etc. and can decrease police calls for service.

The shelter operates an outdoor storage facility to allow guests to have a place to leave their belongings while going on housing showings, job interviews, etc. This also has decreased the amount of guest belongings that were stored amongst the neighborhood.

The shelter operates an outdoor bathroom facility, increasing the amount of facilities accessible to those we serve.

A representative of the shelter regularly attends the neighborhood association meetings.



LEGEND

OPERATIONAL STANDARD #1
Requires the facility to provide adequate space for conducting security searches and other assessments.

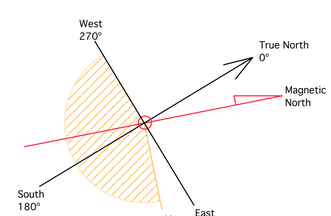
OPERATIONAL STANDARD #2
Requires centralized shelter operations space providing sitelines to sleeping areas. The plan also provides similar operational space with clear sitelines to the main entrance area

OPERATIONAL STANDARD #6
Requires that suitable laundry, kitchen, pantry, bicycle storage and secure storage for shelter stayers be locagted on site. See Siteplan for Bike storage areas.

OPERATIONAL STANDARDS KEY PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



WSA
Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Civil Engineering:
GORRILL PALMER

707 Sable Oaks Dr. #30
South Portland, ME 04106
T. 207.772.2515

Landscape Architecture:
ACETO LANDSCAPE ARCHITECTS

565 Congress Street
Portland, ME 04101
T. 207.221.3390

Structural Engineering:
STRUCTURAL INTEGRITY CONSULTING ENGINEERS

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614

Sustainability Consultant:
THORNTON TOMASETTI

14 York Street, Suite 201
Portland, ME 04101
T. 207.245.6061

CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street, Portland

BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

OPERATIONAL STANDARDS KEY PLAN

A1.2

JUNE 14, 2021

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST
Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW **

At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.

GENERAL APPLICATION DOCUMENTS		
(Yes)	NA	**Project Description** ● Cover letter with detailed project description
(Yes)	NA	**Completed Checklist** (this document)
(Yes)	NA	**Evidence of Right, Title, and Interest** ● Deeds, leases, or purchase and sales agreements
(Yes)	NA	**Evidence of State or Federal Approvals** ● Permits or letters of non-jurisdiction, if applicable
(Yes)	NA	**Zoning Assessment** (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
(Yes)	NA	**Site Plan Standards Assessment** (see Section 14.6 of the land use code) ● Summary of project compliance with site plan standards of the land use code
(Yes)	NA	**Summary of Existing and/or Proposed Easements or Covenants, applicable.** ● Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
Yes	NA	**Waiver Requests** (see Waiver Table) ● Written request for waiver describing request and compliance with applicable waiver standards
(Yes)	NA	**Financial Capability** ● Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
(Yes)	NA	**Technical Capability** ● Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION	
(Yes) NA	**Impact on Surrounding Street Systems (14-14.6.1(A))** ● Describe incremental volume of traffic impacts and mitigation measures. If needed
(Yes) NA	**Access and Circulation (14-14.6.1(B))** Identify and describe the following: ● Site access and internal circulation, including ADA access ● Drive-up features, if applicable ● Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable ● Sidewalks and condition along street frontages and internal walkways ● Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
(Yes) NA	**Public Transit (14-14.6.1(C)), if applicable** Identify and describe the following: ● Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
(Yes) NA	**Off-Street Parking (14-14.6.1(D)), if applicable** Identify and describe the following: ● Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code ● Curb cut separation and parking layout (Technical Manual, Section 1) ● Construction details for bicycle racks ● Management plan for snow storage and removal
Yes (NA)	**Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable** ● Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
(Yes)	NA	**Preservation of Significant Natural Features (14-14.6.2(A)), if applicable** Identify and describe the following: ● High and moderate value waterfowl and wading habitat ● Aquifers (for Casco Bay Islands) ● Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) ● Proposed preservation areas and protection measures ● Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
(Yes)	NA	**Landscape Preservation (14-14.6.2(B))** Identify and describe the following: ● Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) ● Measures to protect existing vegetation during construction
(Yes)	NA	**Site Landscaping and Buffers (14-14.6.2(C))** Identify and describe the following: ● Overall landscaping approach and consistency with standards ● The use of screening and buffering of service areas and between non-residential and residential uses ● Existing Heritage or Feature Trees on site and measures to preserve ● Compliance with street tree requirements
(Yes)	NA	**Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D))** Identify and describe the following: ● Erosion and sedimentation control plan and measures ● Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable ● Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY	
Yes NA	**Consistency with City Master Plans (14-14.6.3(A))** ● Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes NA	**Public Safety and Fire Prevention (14-14.6.3(B))** Identify and describe the following: ● Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) ● Emergency vehicle access ● Consistency with public safety standards (Technical Manual, Section 3)
Yes NA	**Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9)** Identify and describe the following: ● Electrical services, including providing underground services ● Existing and proposed connections for public utilities and required public utility upgrades ● Sewer line connections
SITE DESIGN	
Yes NA	**Massing, Ventilations and Wind Impact (14-14.6.4(A))** Identify and describe the following: ● Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable ● Bulk, location, or height impacts on adjoining structures
Yes NA	**Shadows (14-14.6.4(B)), if applicable** ● Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes NA	**Snow and Ice Loading (14-14.6.4(C))** ● Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes NA	**View Corridors (14-14.6.4(D)), if applicable** ● Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes NA	**Historic Resources (14-14.6.4(E)), if applicable** Identify and describe the following: ● The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district ● Compliance with standards for preservation and documentation of archaeological resources

(Yes) NA	**Exterior Lighting (14-14.6.4(F))** ● Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
(Yes) NA	**Noise and Vibration (14-14.6.4(G))** ● Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
(Yes) NA	**Signage and Wayfinding (14-14.6.4(H)), if applicable** ● Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs ● Provide drawings of all commercial and directional signage on site
(Yes) NA	**Zone-Related Design Standards (14-14.6.4(I))** ● Address any applicable design review standards by zone, including compliance with Design Manual

CITY OF PORTLAND
Planning & Urban Development Department

CONDITIONAL USE – PLANNING BOARD REVIEW SUBMISSION CHECKLIST Please submit each document as a separate PDF file. Please confirm by electronically checking the boxes in the left-hand column.	
Conditional uses are listed in the land use code for each zone. The applicant must address the general standards as well as any use- or zone-based conditional use standards contained in Article 6.5 of the land use code in the written application.	
GENERAL APPLICATION DOCUMENTS	
(Yes) N/A	**Project Description** • Cover letter with detailed project description
(Yes) N/A	**Completed Checklist – Conditional Use** (this document)
(Yes) N/A	**Evidence of Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
CONDITIONAL USE STANDARDS AND CRITERIA	
(Yes) N/A	**Traffic** • Demonstrate that the volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the zone.
(Yes) N/A	**Environmental Impacts** • Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
(Yes) N/A	**Design and Operation** • Demonstrate that the design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
(Yes) N/A	**Use- and Zone-Specific Criteria** • Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

RIGHT, TITLE & INTEREST

As outlined in City Council Order 281 – 20/21 the Portland City Council has authorized DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process. The following is an excerpt of the June 21, 2021, Council packet confirming the vote taken at the June 7, 2021 Council meeting.

"

Order 281-20/21 Approving and Authorizing First Letter Agreement with Developers Collaborative for the Homeless Service Center Project on Riverside Street - Sponsored by Councilor Spencer Thibodeau, Chair, Housing & Economic Development Committee

Motion was made by Councilor Thibodeau and seconded by Councilor Ray for passage. Passage 8-0 (Dion out).

"

The Record Owner of the property is the City of Portland by deed dated May 18, 2010 and recorded at the Cumberland County Registry of Deeds in Book 27825, page 68. A copy of the deed accompanies this section.

QUITCLAIM DEED WITH COVENANT

KNOW ALL MEN BY THESE PRESENTS, that **DOWNTOWN PORTLAND CORPORATION**, a Maine non-profit corporation with an address at Portland City Hall, 389 Congress Street, Portland, Maine 04101 (together with its successors and assigns, "Grantor"), for consideration paid, grants to **THE CITY OF PORTLAND**, a municipal corporation with an address of 389 Congress Street, Portland, Maine 04101 ("Grantee"), with QUITCLAIM COVENANT, a certain parcel of land, together with any improvements thereon, containing 40.9 acres, more or less, located on Riverside Street, Portland, Cumberland County, State of Maine, subject to all matters of record, including, but not limited to, that certain conservation easement granted to Portland Trails contemporaneously herewith, and being more particularly described in a Conservation Easement Plan recorded in the Cumberland County Registry of Deeds in Plan Book 210, Page 129, incorporated herein by reference.

IN WITNESS WHEREOF, Downtown Portland Corporation has caused this instrument to be executed in its name by Gregory Mitchell, its Assistant Secretary, thereunto duly authorized, this 18 day of May, 2010

WITNESS:

DOWNTOWN PORTLAND CORPORATION

By: Gregory Mitchell
Its: Assistant Secretary

State of Maine
Cumberland, ss.

May 18, 2010

Personally appeared the above named Gregory Mitchell, Assistant Secretary of the Downtown Portland Corporation and acknowledged the foregoing to be his free act and deed, in said capacity and the free act and deed of the Downtown Portland Corporation.

Before me,

#7990

~~Notary Public~~/Attorney-at-Law

Ann M. Freeman
Print or Type Name

Received
Recorded Register of Deeds
Jun 08,2010 08:59:38A
Cumberland County
Pamela E. Lovley

O:\OFFICE\ANN\DPC\636 riverside xfer from dpc to city.doc

ZONING ANALYSIS

See attached Zoning Analysis Table and project site plans for additional information.

ZONING ANALYSIS Relevant Zone(s) IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

NOT APPLICABLE

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size		
Minimum Lot Area per Dwelling		
Maximum # Units per Building		
Maximum Building Length		
Maximum Accessory Building Length		
Minimum Setbacks		
Minimum Building Separation		
Minimum Open Space		

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height			
Setback Reduction			
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

WAIVER REQUESTS

The Applicant is seeking the following waivers.

Standard to be Waived: Cite Ordinance or Technical Manual Standard	**Cite Standard Language:** Cite specific language of applicable Ordinance or Technical Manual Standard	**Waiver Being Sought:** Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20'.	**Justification for Waiver:** Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual Section 5.III – Chapter 500 Flooding standard	*MeDEP Chapter 500 provisions related to Stormwater management*	The applicant is seeking a waiver of the flooding standard, whereby stormwater water quantity control is not required.	The site discharges stormwater runoff to the low end of the Presumpscot River which is considered a major river segment therefore quantity control is not required. Water quality treatment will continue to be provided by means of various BMP's including undisturbed buffers within the adjacent City owned Conservation Land.
Section 14.6.1.E Transportation Standards requiring a Transportation Demand Management Plan (TDM)	*All Commercial, Institutional, or mixed use development of 50,000 SF or more total floor area shall design and implement a TDM plan*	The applicant seeks a waiver of the TDM as the development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time	The development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time.

FINANCIAL CAPACITY

The Applicant has the means at its disposal for financing the proposed Homeless Services Center project. A letter from Gorham Savings Bank is attached to this section as evidence of the applicant's financial capacity to undertake the development.

A breakdown of the preliminary project cost includes the following:

Construction and Site Work:	$17,380,000
Additional Furnishings:	$200,000
Soft Costs:	$1,646,335
Total	**$19,226,335**

These values are considered preliminary and approximate and are subject to change as building design and project layout is refined.

Gorham SAVINGS BANK
Banking is believing℠

June 18, 2021

City of Portland
389 Congress Street
Portland, ME 04101

RE: Homeless Service Center at 654 Riverside St, Portland, Maine

To Whom It May Concern:

We have been working with Developers Collaborative as well as Drew Sigfridson and Kevin Bunker on their proposal to construct a homeless service center at 654 Riverside St, Portland, Maine. Developers Collaborative is an established and valued customer of the Bank and has the financial capacity to complete this project. We are excited about their plans for 654 Riverside Street, Portland, Maine, and look forward to working with them in further support of the project.

Please feel free to contact me with any questions.

Sincerely,

Matthew W. Early
Senior Vice President

MWE/JRS

TECHNICAL CAPABILITY

The applicant has retained a highly qualified team of professionals to undertake planning, permitting and design tasks on this project. Services will be provided by the following companies and their respective team leaders:

Civil Engineer	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 707 Sable Oaks Drive South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
Architect	Steve Weatherhead, RA Winton Scott Architects 5 Milk Street, Suite #4 Portland, ME 04101 sweatherhead@wintonscott.com
Surveyor	Sebago Technics Charlie Marchese 75 John Roberts Road, Suite 4A South Portland, ME 04106 cmarchese@sebagotechnics.com
Geotechnical	SW Cole Engineering Tim Boyce PE 286 Portland Road Gray, ME 04039 tboyce@swcole.com
Landscape Architecture	Nick Aceto, PLA ASLA Aceto Landscape Architects PO Box 3787 Portland, ME 04104 (207) 221-3390 na@acetola.com
Construction Management	Cianbro Bruce Cummings and Tom Figura bcumming@cianbro.com/tfigura@cianbro.com

The team of consultants retained by developer has expertise and experience in the design of similar commercial projects. Resumes of key personnel for development team can be provided upon request.

The Applicant also has significant experience in the design, permitting, development and management of large institutional projects as evidenced in the team's proposal to the City.[1]

[1] See Response to Request for Proposal RFP #21041 dated April 27, 2021

TRANSPORTATION

The following statements are provided in accordance with the Section 14.6 Site Plan Review Standards of the ordinance.

TRANSPORTATION

14.6.1 Transportation Standards

Impact on Surrounding Street Systems 14.6.1(A)

- *Describe incremental volume of traffic impacts and mitigation measures. If needed*

The development will fit in with the existing street system as it will use a new driveway off Riverside Street. Riverside Street currently has a travel lane in each direction and a center two-way left turn lane for turning traffic into the site. The posted speed on Riverside Street is 35 mph. There are 8' wide paved shoulders on each side of the road. The available sight distance in each direction exceeds 500 LF which complies with the Technical Standards value of 305 feet for the 35 mph posted speed.

The proposed shelter will be operated 24/7 with staffing at all times. Staff on the site at any one time will be less than 50 persons thus the trip generation attributable to the development will be less than 100 trips in the peak hour, thus remaining below the threshold requiring a MaineDOT Traffic Movement Permit.

The next closest intersections to the development include the signalized intersection of Forest Avenue (Route 302) and Riverside Street to the north and the signalized intersection of Riverside Street and Warren Avenue to the south. The proposed shelter is not expected to impact the operations of either of these signalized intersections.

Access and Circulation 14.6.1(B)

- *Site access and internal circulation, including ADA access*
- *Drive-up features, if applicable*
- *Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable*
- *Sidewalks and condition along street frontages and internal walkways*
- *Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)*

(i) The development provides primary two-way access via Riverside Street. Internal circulation has been reviewed and designed to accommodate the typical use of passenger and emergency vehicles by means of the 24' wide main site driveway and a minimum 20' wide perimeter loop drive around the building. The applicant is proposing ADA parking at the front of the building for access.

(ii) There are no drive-up features proposed.

(iii) Access and egress have been designed to avoid conflict with existing turning movements and traffic flows. Please see AutoTURN diagrams included in Section 10.

(iv) Public sidewalks exist along the east and west sides of Riverside Street except for a short length on the west side of Riverside Street north of the proposed driveway entrance. The sidewalk on the east side of Riverside Street extends to Forest Avenue and ultimately to the existing transit stops located approximately 1600 LF from the site. The development will include a 12' wide paved pedestrian route extending from the Street into the site and to the building's main entrance. A Plaza space will be provided along this route for the use and benefit of the Shelter guests.

Public Transit Access 14.6.1(C), if applicable

- *Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter*

The site is served by nearby transit service on Forest Avenue. The METRO Route 2 includes outbound and inbound transit from the Portland Downtown to Prides Corner. There are several stops located in the vicinity of the Hannaford Store and Riverton. Similarly, the METRO Route 3 services connects Hannaford-Riverton-Westbrook- South Portland along East Bridge Street, Spring Street and the Maine Mall. The METRO Route 4 includes service along Brighton Avenue, south of the proposed shelter site. Exact details as to any shelter improvements at any of the existing transit stops along Forest Avenue have yet to be formulated with METRO but are anticipated to be discussed during upcoming meetings.

Parking 14.6.1(D)

- *Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code*
- *Curb cut separation and parking layout (Technical Manual, Section 1)*
- *Construction details for bicycle racks*
- *Management plan for snow storage and removal*

1. Vehicular Parking

The proposed project will include 43 parking spaces. This exceeds the value of 28-30 spaces required under the terms of the RFP #21041 that the City had issued. This parking capacity is expected to provide for both the anticipated staff load as well as guests/visitors to the site.

2. Bicycle Parking

The site plan currently identifies 10 bike spaces to satisfy the 8 bikes required (2 spaces/10 vehicles). Please see the Landscape plans by ALA for further information on the outside bike parking locations.

3. Snow Storage.

a. Snow storage management will employ two strategies:

1. On-site snow storage around the perimeter of the site as shown on the site plans; and
2. Snow removal and off-site storage.

4. Electric Vehicle (EV) Charging

The Applicant will be providing conduit for EV Charging stations for 20% of the parking spaces or 8 spaces.

Traffic Demand Management (TDM) 14.6.1(E), if applicable

- *Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements*

A TDM plan is not required for this project based on the use as an emergency/homeless shelter where the predominate means of access by guests will be foot traffic. .

ENVIRONMENTAL

The following statements are provided in accordance with the Section 14 of the Ordinance.

14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features 14-14.6.2(A), if applicable

- *Populations of trees and plants that are endangered or threatened*
- *Habitat for species*
- *High and moderate value waterfowl and wading habitat*
- *Aquifers on Casco Bay Islands*
- *Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains)*
- *Proposed preservation areas and protection measures*
- *Documentation from environmental compliance consultants and determinations from applicable state and federal agencies*

1. Preservation of Significant Natural Features:

a. The development site does not contain any significant natural features including wetlands of special significance, vernal pools or other protected resources. A forested wetland was identified within the conservation area located outside of the site boundaries. The site is nearly all covered with previously filled land that has reverted to grass and shrub vegetation naturally. No further evidence will be provided for the current application, unless requested.

B. Landscape Preservation 14-14.6.2(B)

- *Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4)*
- *Measures to protect existing vegetation during construction*

1. The site's existing tree coverage is sparse due to the nature of the historical placement of fill across the site. There are no specific trees earmarked for preservation as a result of these site conditions.
2. The majority of the development footprint lies within previously filled land.

C. Site Landscaping and Buffers 14-14.6.2(C)

- *Overall landscape approach and consistency with standards*
- *The use of screening and buffering of service areas and between non-residential and residential uses*
- *Existing heritage or Feature Trees on site and measures to preserve*
- *Compliance with Street Tree requirements*

1. Landscaping

The proposed landscape plan meets (and exceeds) the Site Plan review standards in Section C of the Technical Manual. The applicant is proposing a mix of shade and flowering trees—as well as shrubs, ornamental grasses, and perennials—along development frontage and at the site's interior

that will add aesthetic interest, ecological value, and scale to the proposed development. All proposed trees are listed in the City of Portland Recommended Tree List. Due to the site's current use as filled land, there are no existing trees or vegetation that need preservation.

2. *Buffers:*

There are no service or loading areas observable from nearby sidewalks or residential properties and trash and recycling will be contained within a solid screened enclosure. Various new tree plantings consisting of both evergreen and deciduous will be planted along the shared boundaries with the Lucas Tree Experts site and the Suburban Propane site, both located along the southerly sideline shared with those uses.

(a) The City is the owner of the conservation land along the north and west sides of the property. The existing woods within these areas will remain as a permanent buffer to at least ½ the property perimeter.

(b) Not applicable

(c) Evergreen tree plantings will be placed along the shared boundary with the Lucas Tree experts.

3. *Parking and Vehicle Display Lot Landscaping*

The applicant is proposing a mix of shade trees, ornamental trees, and shrubs in the plaza spaces and around the site perimeter. The parking lot will be screened from view from Riverside Street and surrounding property primarily due to distance and grade change from the street.

4. *Street Trees*

The proposed development has less than 100 feet of street frontage. Trees are proposed along the entrance drive with several located just off the Riverside Street right of way.

D. Water Quality, Stormwater Management and Erosion Control 14-14.6.2(D)

1. The proposed development results in 150,041± SF (3.44 ac) of proposed impervious area. This includes 51,690 SF of building roof and 98,351 SF of hard surfaces associated with pavement, plaza, and sidewalks. The stormwater management design will include measures to comply with the water quality treatment standards. A waiver is requested of the stormwater flooding standards since the site is directly tributary to the Presumpscot River, which is considered a major river segment. The development site is located at the lower end of the overall river watershed and thus the need for flood controls are not necessary as the hydrologic peak flow condition for the site are substantially sooner than the overall watershed peak. The approach to not control the site's increased runoff discharge is commonly referred to as "beat the peak" approach. Since the site's runoff will only cross over City retained land before entering the river, there are no issues for downstream flooding. Similar waivers of the flooding standards have been granted for other properties along Riverside Street, including the Second Tee Business Park for example and the Suburban Propane site.

For water quality treatment one primary measure for treatment will be the use of level spreader outlets to disperse runoff over a wide area to allow sheet flow over the adjacent conservation areas. These measures are outlined in Chapter 5 of the MaineDEP Stormwater Management BMP Manual. In addition to the use of the vegetated buffers, the site design may employ additional BMPs including rain gardens and other filtration BMP's into the overall management approach.

2. The proposed project will comply with the City's stormwater management standards of the Technical Manual. The project will employ various Best Management Practices including undisturbed vegetated buffers, rain gardens and/or filtration BMP's.

3. The development will include some amount of runoff infiltration into the underlying ground as water passes over the undisturbed vegetated buffers. This is due to the absorption capacity of the onsite soils and the depth to groundwater. This is a benefit/advantage of the site and the ability to provide some amount of infiltration practices as part of the Stormwater Management regime.

STORMWATER MANAGEMENT REPORT
(GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC/CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021

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STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed City Homeless service center on an undeveloped 7.01-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

Total Area of Site: Lot 4-2 = 7.01 acres (305,505 sf)
Total Site Area to be Disturbed: Approx. 5.2 acres
Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
Total Impervious Area After Construction: 150,041 SF (3.44 acres)

Prop Building: 51,690 SF
Prop Pavement: 61,734 Sf
Prop Sidewalk: 8,538 Sf
Prop. Plaza Area: 9,119 Sf
Prop. Pavement Flex Area: 11,067 SF
Prop. Raised Gardens/Social Spaces: 5,033 SF
Prop. Pavilion/Outdoor Seating: 2,860 SF

This section of the Major Site Plan Application presents the Stormwater Management Plan designed for the project activities. The stormwater management design presented herein will show that the site will meet the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to these lower watershed conditions, **the applicant is requesting a waiver of the flooding standards as has been previously granted for projects in this area of Portland**. As discussed below the site's current conditions are characterized by filled land that has been substantially naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs and duff cover. Slopes associated with the manmade fill limits vary from 6 to 15% down to a flatter zone along the river.

The proposed stormwater quality treatment approach primarily utilizes the 'Vegetated Buffers' approach listed in the Maine Best Management Practices (BMPs) to meet the stormwater quality standards required under the general standards as outlined in the adopted MeDEP Chapter 500 Stormwater Management Technical Manual. The site's surrounding vegetated buffers are intended to provide water quality treatment for close to 100 percent of the proposed development area. We believe the site's conditions including the existing conservation land that lies between the site and the river is an ideal opportunity to utilize level spreaders and

dispersed runoff flow along the site's perimeters so that these waters will sheet thru the heavily forested buffers where soil and vegetative absorption can occur prior to entry into the river.

2.0 EXISTING SITE CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.

- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Sebago Technics has previously completed a topographic survey of the property. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the property.

The site's runoff either infiltrates into the ground or drains downslope directly to the Presumpscot River via overland flow. There are no apparent drainage systems on site, although there is a closed storm drainage system within Riverside Street.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Shelter site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

ONSITE

A 51,000 SF single story shelter facility will be constructed and site improvements will include 43 parking spaces, a primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a perimeter drive around the building for emergency and maintenance access. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions that will comply with the MeDEP VRAP program.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003* http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the flooding standards is requested, no formal hydrologic analysis using HydroCAD has been performed.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

- That detention will not be required to reduce the peak flow rate or meet the flooding standards. **A waiver of the flooding standards is requested on the basis that similar waivers have been granted in the past for development in the nearby vicinity.**
- That the filled soils and the native soils in the surrounding conservation area will have infiltrative properties that meet the requirements of the Maine DEP Vegetative buffer BMP's proposed. Note: **A waiver is being sought for infiltration testing**.

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010).
- Designing water quality measures including vegetative buffers, level spreaders and raingarden pretreatment to provide long-term removal of non-point contaminants.
- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual (to be provided as a separate document).

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

Approach

To meet the General Standards, our office reviewed the list of options of MeDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including grassed underdrained filter, bio-filter, vegetated buffers, proprietary devices, and infiltration trenches for the site. Following this review and incorporating knowledge of the site and the goals of the project, it was realized that developing a method for providing stormwater quality treatment that utilizes the surrounding undisturbed vegetated forested buffers for dispersing sheet flow and allowing as much runoff infiltration as possible into the underlying soils would be preferable

both functionally and economically. According to the MaineDEP BMPs this is known as a "Vegetated buffer" approach to stormwater quality treatment.

The use of buffers will require careful collection and dispersing of runoff via level spreaders at various locations along the site's downhill perimeter.

The basis of design of treatment method is as follows:

Compliance with BMP Design Criteria:

Size Suitability:

The overall site is 7 acres and developed area will be approximately 5 acres. The proposed buffers consist of heavily forested conservation land downhill of the site. There are several areas of concentrated ravine type conditions that will need to be avoided for the release of water from various level spreaders. There are however also many zones where a level spreader can be positioned to release water into a sheet flow condition thru the buffer zones. The slopes downhill of the site vary from 3% to as steep as 15% which is the upper limits for buffers. Steeper slope conditions will be avoided. The soils in the site are all controlled fills. The native soils further downgradient in the buffer zones consist of clays, tills and sands. The existing buffers appear to have a significant forest duff layer that during the current summer conditions supports a very heavy ground cover in many areas that is challenging to navigate thru. The buffers will not include any streams.

Buffer Design:

The initial examination of site conditions yields a finding that the buffers should be suitable for use to treat dispersed runoff from the development site. Additional information on level spreader design, pretreatment and the specified buffer dimensions will be provided in a supplemental memorandum to this report prior to the first Planning Board Workshop.

Vegetative cover:
The buffers are heavily wooded generally throughout.

Maintenance:

The buffer areas and ancillary collection and conveyance measures will require maintenance to assure erosion and sediment transport is avoided and that systems retain their design function of the capture and release of stormwater runoff from the site.

Pretreatment

Pretreatment in the form of rain gardens, stabilized sumps and similar capture devices will be integrated into the design to aid with the removal of heavier sediments, trash, debris etc. prior to the release of runoff into sheet flow into the buffers.

Separation to Groundwater:

Based on the test pit data included in previous subsurface explorations, the groundwater table throughout the site is six to nine feet below existing grade thus there is ample separation from any underlying groundwater resources

Infiltration Testing:

The applicant is seeking a waiver from the infiltration testing requirement. The applicant has observed the existing site after heavy rain events and not observed ponding. The existing site has an uncontrolled layer, and it is expected that the proposed non-impervious surfaces will not negatively impact any infiltration properties below.

Flooding Standard:

Due to the direct discharge to the Presumpscot River, **a waiver from the flooding standard is being requested**.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.44 acres of impervious surface. The proposed disturbed area will be about 5.2 acres. Level Spreaders dispersing runoff to the downhill undisturbed vegetated buffers will be more than sufficient to meet the standards for roof treatment which are generally tied to thermal treatment when a non-asphalt roof is proposed, as is the case for this building.

The proposed stormwater management plan provides treatment for nearly all the development area as site generated runoff will be collected and dispersed over the ground to the downhill buffers zones. Hence, the strategies proposed herein meets the minimum requirements stated in the General Standards. Again, the absorption of runoff from the building roof will result in thermal cooling before the water enters the Presumpscot River.

11.0 EROSION CONTROL

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are part of the plan set. The measures to be used include perimeter sediment barrier placement, careful placement of stockpiles and use of soils cover systems.

12.0 OPERATIONS AND MAINTENANCE

An Operations & Maintenance Manual will be prepared upon the acceptance of the proposed vegetated buffer system.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

The following statements are provided in accordance with the submission and Section 14.6.3 of the ordinance.

Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans 14.6.3.A

1. The proposed development is consistent with the previously approved Amended Subdivision Plan that contemplated development on the approximately 7 acre property. The site is ideally situated to benefit from public infrastructure for utilities, vehicular and pedestrian access as well as nearby public transit on Forest Avenue.

2. The Applicant has coordinated with utility representatives for the maintenance of easements related to utility infrastructure crossing the site. These easements include drainage benefitting the Suburban Propane Site as well utility service to the City owned communications tower. The City will be engaging their survey consultant to assist with any updates/amendments to the overall Riverside Subdivision Plan.

B. Public Safety and Fire Prevention 14-14.6.3(B)

- *Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3)*
- *Emergency vehicle access*
- *Consistency with public safety standards (Technical Manual, Section 3)*

a. The site has been designed to promote a safe and inviting visitor experience. All pedestrian paths and outside gathering spaces have been positioned to maintain visibility and consider safety for the users.

b. The primary site access will be off Riverside Street. The entrance drive will connect directly to the front building entrance whereby allowing the building staff reasonably clear vision to vehicles coming and going into the property.

c. The site plan includes emergency vehicle around the site perimeter.

C. Availability and Adequacy of Public Utilities 14.6.3(C) (Technical Manual, Sections 2 & 9 9)

- *Electrical services, including providing underground services*
- *Identify existing and proposed connections for public utilities and required public utility upgrades*
- *Sewer line connections are required, if there is a main within 200 feet*

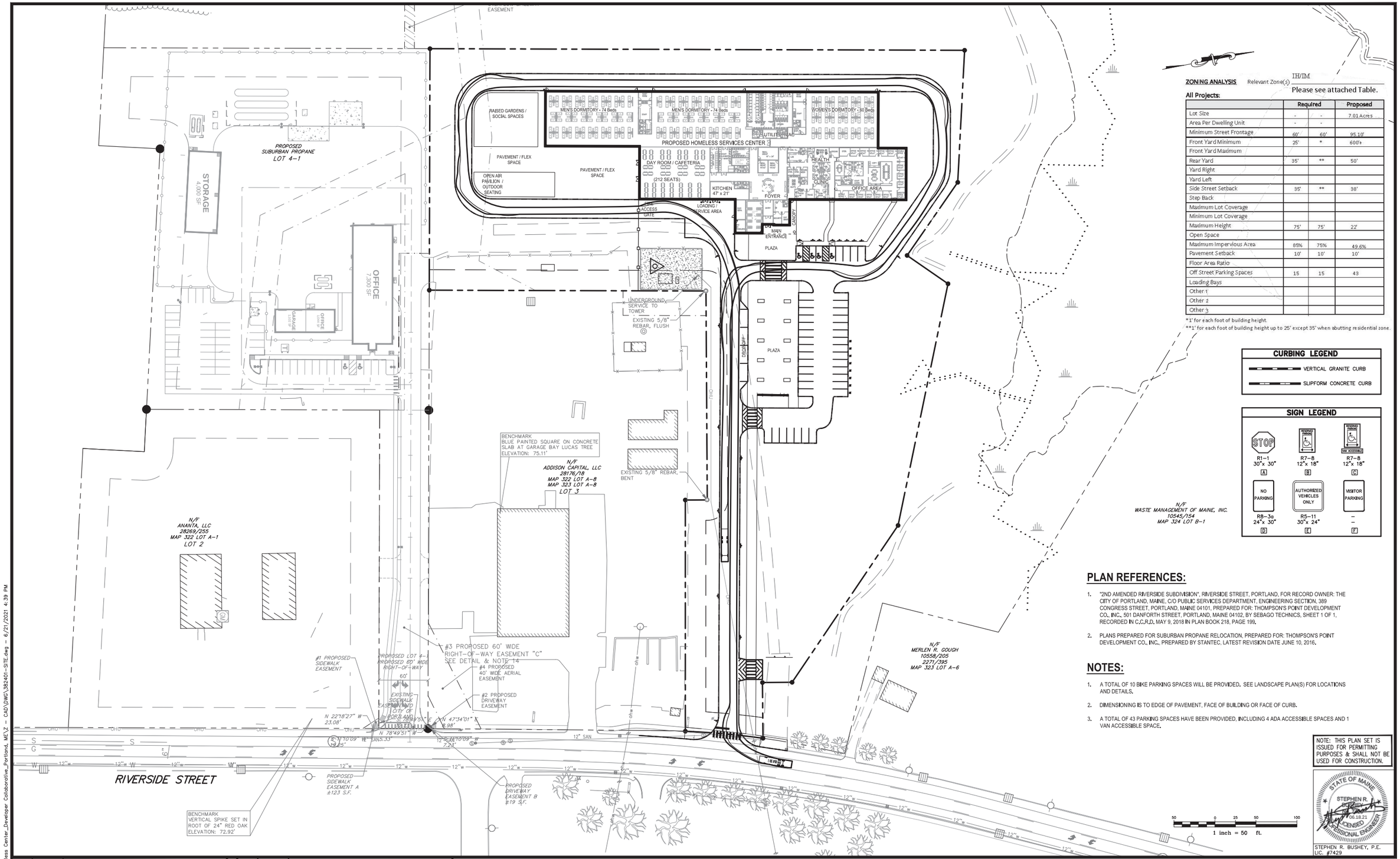
a. The Applicant is coordinating with the onsite utility providers and will forward capacity to serve letters upon receipt. Existing utility systems in Riverside Street include:

- 12" water main
- 12" gravity sewer line
- Overhead three phase power
- Overhead communications lines
- High pressure gas main

b. All electrical and communications feeds are underground on the property.

c. A new sewer connection to the existing 8" gravity main in the Suburban Propane right of way is proposed. The wastewater collection system design has been prepared to comply with the City's technical standards. The building will include a kitchen facility; however, all meals will be prepared at an offsite location and no substantial cooking activity will occur on site. A grease tank is not required as a result. The development team will discuss the need for any solids handling equipment at the site and if needed employ the use of such equipment into the gravity sewer design.

d. The site will include a solid waste and recycling enclosure area for the placement of trash collection cannisters. A contracted waste hauler will be responsible for the removal of all waste on a routine basis.



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

50 0 25 50 100
1 inch = 50 ft.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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SITE DESIGN

The following statements are provided in accordance with the submission and Section 14 of the ordinance.

Site Design Standards 14.6.4

A. Massing, Ventilations and Wind Impact 14.14.6.4(A)

- *Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable.*
- *Bulk, location or height impacts on adjoining structures*

a. The bulk, location, and height of the proposed building will not result in any impacts to adjacent sites or buildings. The proposed building will be less than 25' in height and it will be positioned away from nearby structures. The closest structures are the City's communication tower and the buildings on the Suburban Propane Site and Lucas Street Experts site.

b. Based on the positioning of the new building there is expected to be no diminution in value or utility of nearby properties. The proposal is consistent with the previously approved Amended Subdivision plan. The land use is a conditional use for the IM/IH zones.

c. HVAC venting will be directed through building roof top mounted units and does not impact any adjacent public spaces or residential properties.

B. Shadows 14-14.6.4(B), if applicable

- *Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)*

a. The proposed building will not cast significant shadows onto neighboring properties, or block access to direct sunlight for structures utilizing solar energy.

C. Snow and Ice Loading 14-14.6.4.(C)

- *Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways.*

a. The proposed building has been designed and located such that accumulated snow and ice will not fall onto adjacent properties or public ways. Snow will be removed from the parking lots and stockpiled within the site perimeter or if necessary, removed from the site.

D. View Corridors 14-14.6.4(D), if applicable

- *Protection of designated view corridors (Portland Design Manual, Appendix 1)*

a. The project site is located outside the Downtown Vision Corridor Protection Plan.

E. Historic Resources 14-14.6.4(E), if applicable

- *Identify developments within Historic Districts or affecting Designated Landmarks*
- *Certificate of Appropriateness or other evidence*
- *Identify Developments within 100 feet of Historic Districts or affecting Designated Landmarks. Advisory HP review may be required*
- *Address preservation and documentation of Archaeological Resources*

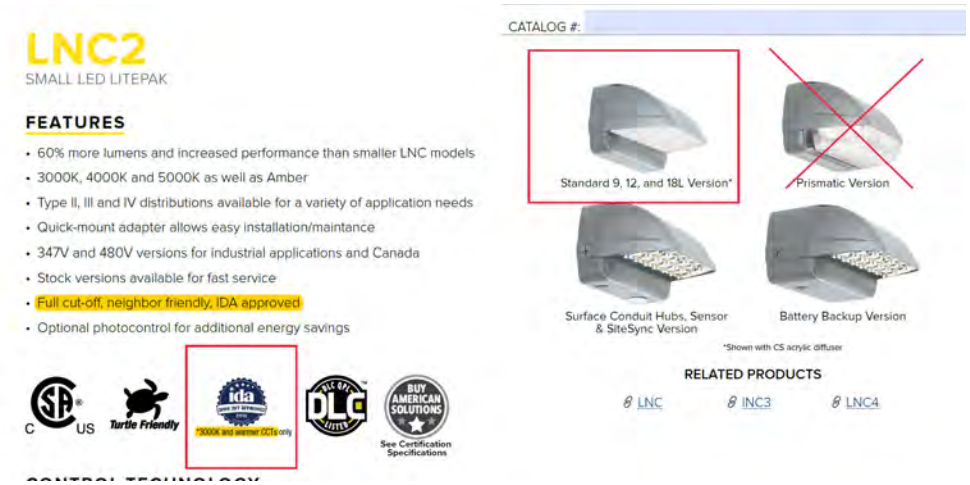
The development site is not within any Historic District nor contains any historic or significant related resources.

F. Exterior Lighting (14-14.6.4(F))

- *Cut sheets of on-site light fixtures and any architectural or specialty lights (Technical Manual, Section 12)*
- *Engineered details for any lights proposed in street right-of-way (Technical Manual, Section 10)*

a. Site Lighting

The proposed site parking lot lighting will be consistent with City's standards. This includes 20-foot area light LED fixtures, with 90 degree cutoff shields. (Beacon Viper S). Building mount lights will be LNC2 by Hubbell



b. Architectural and Specialty Lighting

(i) Architectural and specialty lighting may include bollard lights along walkways.

c. Street Lighting

There are existing streetlights along Riverside Street. The applicant not proposing new street lighting.

G. Noise and Vibration 14-14.6.4(G)

- *Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements*

All new HVAC equipment will be located greater than 100 feet from any nearby residential uses. No equipment will be located within 25 feet of a property line. All new equipment will meet the City standards for noise at the property lines.

H. Signage and Wayfinding 14-14.6.4(H), if applicable

- *Signage plan showing the location, dimensions, height and setback of all existing and proposed signs*
- *Proposed commercial and directional signage on site*

1. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code. Internal City coordination is underway for the placement of both onsite and offsite signage.

I. Design Standards 14-14.6.4(I)

- *Address any applicable design review standards by zone - Residential developments, shall integrate with and respect the character of surrounding residential development in terms of architectural form, landscaping and open space, façade materials, roof pitch, massing, and height.*

The site is located in the IM/IH Zoning Districts. The building is oriented to provide a primary entrance from Riverside Street. Major land uses adjacent the property include:

- Lucas Tree Experts that include various metal buildings and stockyard;
- Suburban Propane including offices, propane storage tanks and other support structures;
- Schnitzer recycling that includes large metal recycling stockpiles and related outdoor storage of materials for recycling;
- Seacoast Scaffold & Equipment – industrial use; and
- Communications towers on the site and on the Lucas Tree site.

Building Design:

The new Homeless Services Center proposed for the property at 654 Riverside Street is a 50,000 s.f. single story building based on the program requirement's provided by City RFP that also seeks to satisfy the operational standards in the ordinance for shelters located in zones that allow shelters as a conditional use.

The site is in an Industrial Zone surrounded by commercial and industrial type uses to the east, west, and south. To the north is a wooded area extending to the Presumpscot River that also serves as the City limit line with neighboring Westbrook.

There are no residential developments directly adjacent to the site or access roads to residential areas from this portion of Riverside Street. The Riverton Place neighborhood accessed off of Forest Ave is nearby as is the Riverton neighborhood just south of the Maine Turnpike also accessed from Forest Ave but neither are visually connected to the site.

It would seem that a large one story facility that contains residential functions but also contains a significant area of office and clinic space is a very different typology than a residential development of single family homes and multi-unit apartment buildings and therefore it is difficult to make relevant comparisons of architectural language and massing.

However, there are many design elements that the building types can share and that are proposed for this development:

- The building is single story and utilizes a combination of small, scaled windows and larger glass walls to bring in natural light and connect the building to the outdoor areas.
- The site has been developed in a way that prioritizes pedestrian movements including a central pedestrian circulation spine that intersects a pedestrian plaza and leads directly to the front entrance of the facility. Also ample places for storing bikes are provided.
- The front entrance is articulated by a large covered porch area that makes the building human scaled and articulates the entrance.
- The project includes extensive development of outdoor space for recreation, lawns, and raised bed vegetable garden areas.
- The site will also be improved with extensive landscaping including trees along the property lines to screen adjacent industrial uses as well as plantings around the building and outdoor recreation areas for visual interest.

CONDITIONAL USE STANDARDS

In accordance with Section 6.5.2 General Conditional Use Standards we offer the following supporting evidence:

A *The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone.*

Supporting Evidence: The proposed shelter is expected to produce less than 100 peak hours trips based on the staffing of fewer than 30 persons and the fact that shelter guest/visitors will most often not have a private vehicle for transportation. The site will have only 43 parking spaces for passenger vehicles. By comparison nearby development includes the Lucas Tree Experts site that often has more than 25 company vehicles including large trucks and a similar number of staff passenger vehicles parked and generating traffic. The nearby Schnitzer property has greater than 30 parking spaces and over 4 acres of impervious area.

The proposed pavement area will be approximately 151,456 Sf or 49.6% coverage which is considerably lower than the 75% allowed in the IM zone and 85% allowed in the IH zone.

B. *The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.*

Supporting Evidence: The proposed shelter is intended to provide for the safe and comfortable temporary housing of homeless guests and by its nature will not be the producer of excessive noise, glare, dust or emissions. The site will be served by public sewer and water systems. The site will contain lighting coverage that is compliant with the City's standards. This includes lights of appropriate height and separation to avoid any glare or spillover of lighting onto nearby residential properties. Measures for the collection and disposal of litter will be provided and maintained on the property. The site is located in a relatively densely developed commercial corridor along Riverside Street and surrounding land uses are considered more intensely developed than the Shelter site proposed.

C *The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.*

Supporting Evidence: The development site will have a single access from Riverside Street into the property. The building has been positioned to include a loading area for deliveries and related building support services. The site is relatively well screened on the east and north sides by an existing large tract of undeveloped wooded conservation land. A landscaping plan has been developed that offers ample outdoor space for shelter guests as well as new landscaping that will provide aesthetic appeal, improved buffering and screening, and solid waste collection and management. There will be no materials storage associated with the use, although nearby uses involve substantial outdoor materials storage. Nearby land uses including two communications towers, a recycling facility, a propane fuel depot and other uses on Riverside Street represent far more intense land development.

D. The proposed use will meet any additional zone or use-specific standards identified in Tables 6- A to 6-F and Subsections 6.5.6 and 6.5.7

Supporting Evidence: Table 6-E applies to the site and it lists Emergency Shelters as a conditional use in the IM/IH zones. It references the Use Standards in Section 6.5.6(B).

In accordance with Section 6.5.6 Supplemental Use-Specific Conditional Use Standards pertaining to Emergency Shelters we offer the following information:

B. Emergency Shelters

1. The facility shall provide adequate space for conducting security searches and other assessments.

Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

2. The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.

Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

3. A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.

Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

4. *Adequate access to and from METRO service shall be provided. The facility shall be within a ¼ mile of a METRO line, or shall be within ½ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.*

   Supporting Evidence: The site is located approximately 0.3 mile from the transit stops of the METRO Route 2 along Forest Avenue. The building will provide for indoor space to permit shelter guests day shelter.

5. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

6. *Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.*

   Supporting evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

   Supporting Evidence: The Site plan contains a plaza at the front of the building where guests may congregate. A second plaza area is also located to the south side of the building and that will contain space for guest to congregate, socialize and participate in activities.

CONSTRUCTION MANAGEMENT PLAN

A Draft Construction Management Plan has been prepared and is included with this section.

Portland Shelter Construction Logistics Plan

Secondary Gate

Porta Potty & Dumpster Location

Subcontractor Parking Area & Lay Down Area

Construction Boundary Fence

Construction Office Trailers

Cianbro & Visitor Parking

Main Gate

Construction Access

LOT 4-2
AREA: 7.01 ACRES

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 80 Beds

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH CLINIC

OFFICE AREA

UTILITY/HVAC

LOADING / SERVICE AREA

MAIN ENTRANCE

CANOPY

PLAZA

8 SPACES

14 SPACES

14 SPACES

7 SPACES

PLAZA

OPEN AIR PAVILION / OUTDOOR SEATING

RAISED GARDENS / SOCIAL SPACES

PAVEMENT / FLEX SPACE

PAVEMENT / FLEX SPACE

SEE LANDSCAPE PLANS FOR YARD AREA DESIGN

OPEN AREA

FIRE ACCESS GATE

6" BOLLARD, TYP.

10' MIN. PAVEMENT SETBACK, TYP.

5' WIDE BITUMINOUS

20' WIDE RAISED CROSSWALK

HARD SURFACE PLAZA AREA - SEE LANDSCAPE PLANS FOR DETAILS

STANDARD-DUTY PAVEMENT, TYP.

12' WIDE RAISED CROSSWALK

24' WIDE PAVED ACCESS DRIVE

8' WIDE ESPLANADE

12' WIDE BITUMINOUS SIDEWALK

SLIPFORM CONCRETE CURB (TYP.)

12' WIDE RAISED CROSSWALK

GUARDRAIL

EXISTING OVERHEAD LINES TO REMAIN

EXISTING PARKING FOR TRAIL TO REMAIN

TIPDOWN

PROPOSED GRANITE CURB

TIPDOWN

L=95.10' R=990.18'

REMAINDER OF LOT 4
CONSERVATION EASEMENT AREA
21.79 ACRES

EXISTING PROPERTY LINE

WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

WETLANDS FROM SURVEY PLAN REFERENCE 6A

INVERT OUT 15" HDPE 52.16'

INV-IN-8" HDPE 62.62'

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

EXISTING 5/8" REBAR, BENT

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

PROPOSED SUBURBAN PROPANE
LOT 4-1

STORAGE
4,000 SF

OFFICE
7,300 SF

GARAGE
1,100 SF

OFFICE

#1 PROPOSED SIDEWALK EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

PROPOSED LOT 4-1 PROPOSED 60' WIDE RIGHT-OF-WAY

EXISTING SIDEWALK EASEMENT HELD BY CITY OF PORTLAND

PROPOSED SIDEWALK EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

EASEMENT "C" POINT OF BEGINNING

N 314842.65
E 2911099.35

N 314783.78
E 2911087.73

RIVERSIDE STREET

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1-1 30"x 30" A	R7-8 12"x 18" B	R7-8 12"x 18" C
NO PARKING R8-3a 24"x 30" D	AUTHORIZED VEHICLES ONLY R5-11 30"x 24" E	VISITOR PARKING – – F

PLAN REFERENCES:

1.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

50 0 25 50 100
1 inch = 50 ft.

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE.dwg		

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207.772.2515

Drawing Name: CONSTRUCTION MANAGEMENT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Figure A

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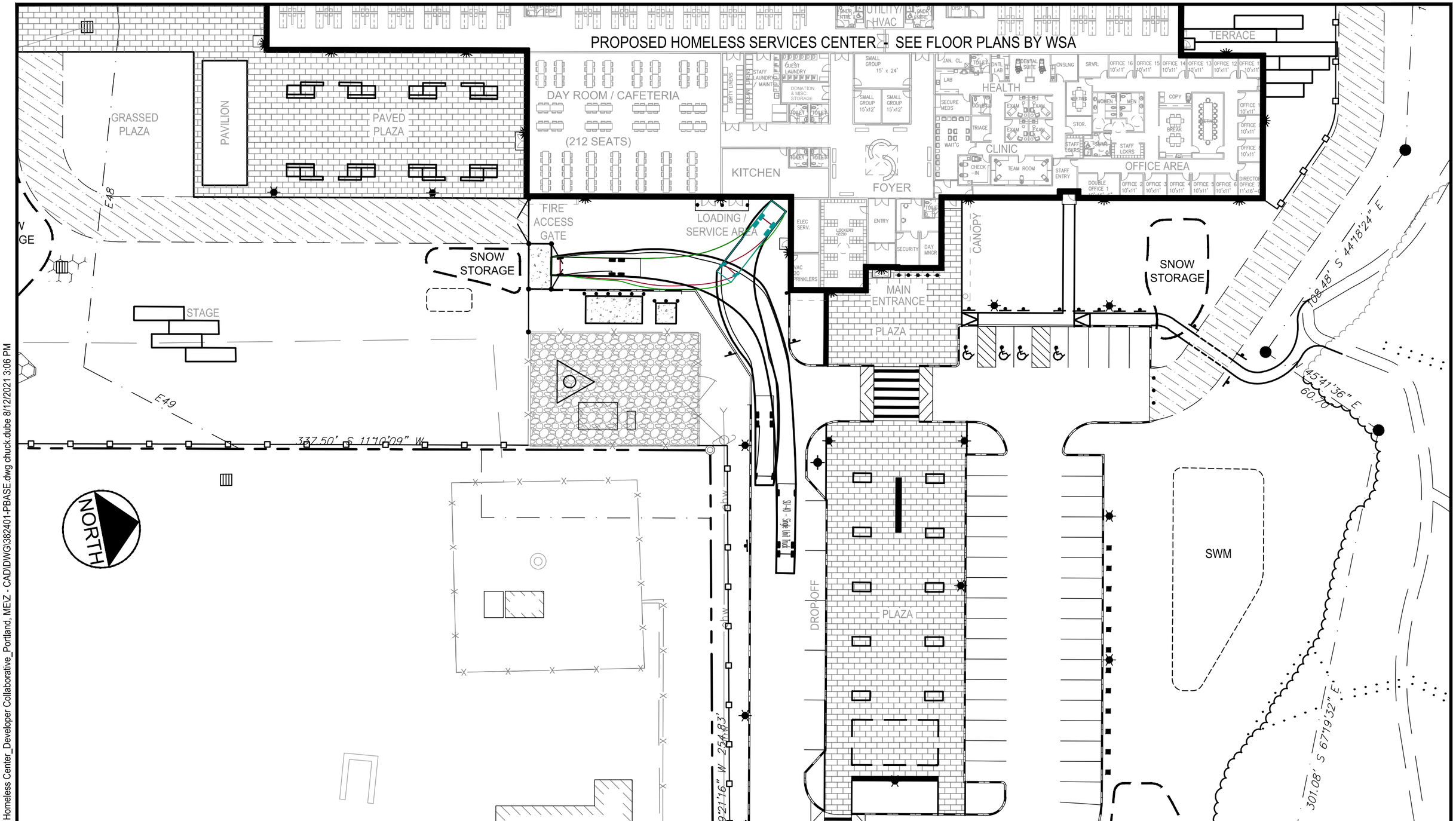
ATTACHMENT B



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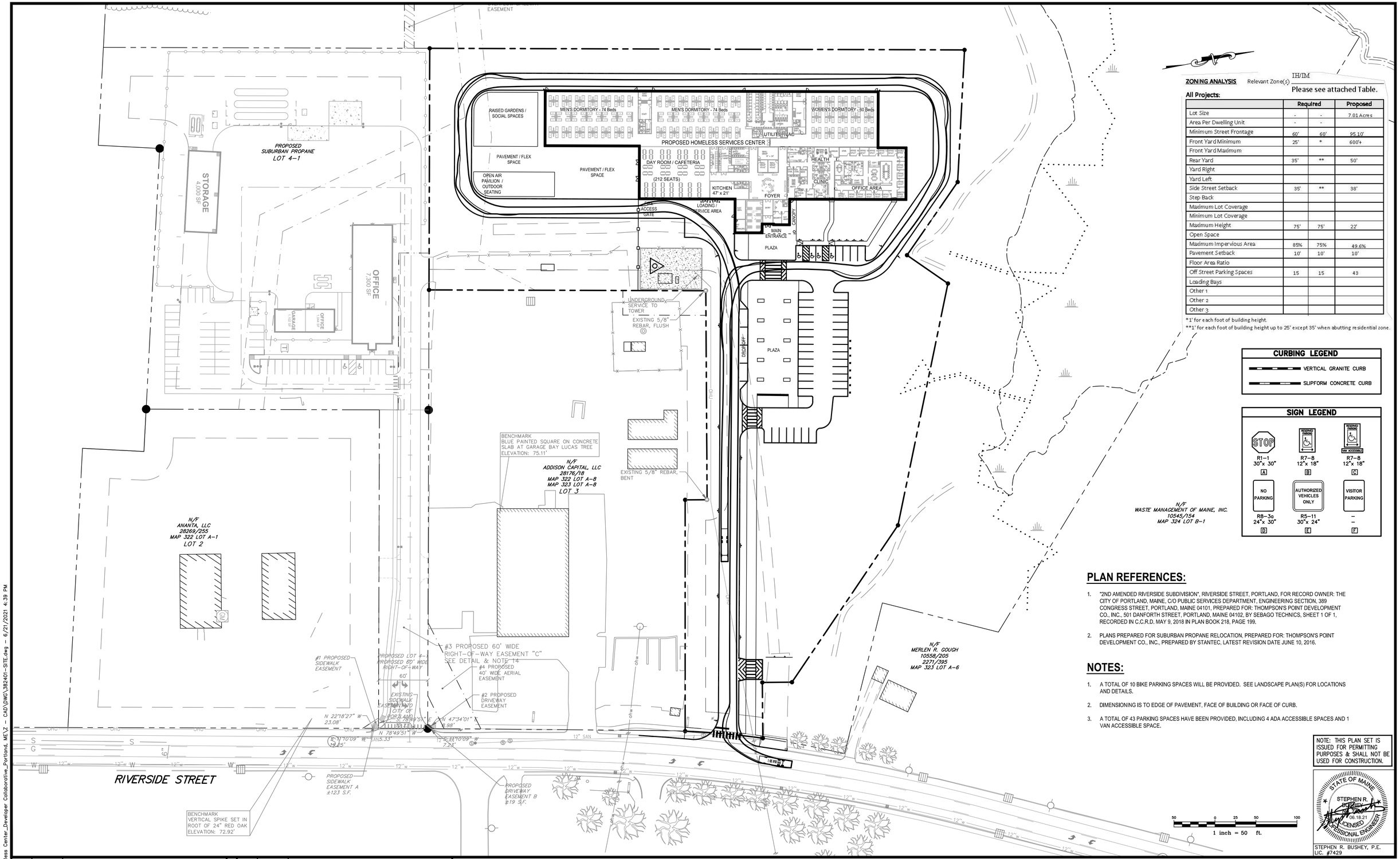
DRAWN:	CDD	DATE:	AUG. 11, 2021
DESIGNED:	SRB	SCALE:	1" = 40'
CHECKED:	SRB	JOB NO.	3824.01
FILE NAME:	382401-XBASE		

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET, PORTLAND, MAINE

GARBAGE TRUCK ACCESS / TURNING MOVEMENTS

FIGURE
1



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1–1 30"x 30" [A]	R7–8 12"x 18" [B]	R7–8 12"x 18" [C]
R8–3a 24"x 30" [D]	R5–11 30"x 24" [E]	– – [F]

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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ATTACHMENT C

Winton Scott Architects

City of Portland Homeless Services Center
Response to Design Review Comments received from Planning staff on 7/7/21
& Planning Board Workshop #1

8/9/21

Design Team Response:

The design review comments provided by city planning staff focus on the "Two-Family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards" (Section (d) of the Design Manual. Additional design comments were provided at the Planning Board Workshop.

Standard 1- Exterior Design

Staff comments noted that the building as designed "includes variation in the roofline and a mix of fenestration, materials, awnings, canopies to provide variation and visual interest". Additional information on proposed materials was requested and it was suggested that windows be added to the front facade of the locker room adjacent to the main entrance.

Planning Board design comments included:

-Building could be more inviting
-Building looks too institutional-like a school
-What are plans for roof top equipment?

Response:

Amended drawings were presented at the workshop that provided material selections and three windows were added to the front locker room facade. After consideration of comments received in the workshop, the exterior design and materials selections have been further refined, and new, more detailed renderings and elevations have been developed.

The red brick proposed at the office wing and the vertical metal siding at the cafeteria have been replaced with a deep warm-toned metal plank panel system with horizontal orientation and staggered joints. The red brick was seen as contributing to the institutional character of the building and the new siding selection is seen as more contemporary and visually interesting.

There is also a more logical application of materials with the front more public wing being composed of one material and the rear, taller dormitory wing being composed with two types of metal siding. The wings are then punctuated by the main entrance and associated gathering space with its higher sloped roof and gray brick cladding.

As noted in staff comments, the design includes a wide variety of fenestration sizes and types to provide visual interest and clues to the functions within. The dormitories and office areas utilize

smaller vertically oriented windows that have a residential scale and the upper portion of the dormitories include large clerestory with large east facing Kalwal translucent panels to bring morning daylight into the sleeping areas. Clerestory windows and a skylight also punctuate the main gathering space, flooding the space with natural light.

Another design refinement has been to add a covered porch element off of the cafeteria/dayroom. This is seen as a transitional space between the interior and the exterior recreational spaces offering a place to sit and gather outside that provides shelter from southerly sun and rain.

Regarding Planning Board comments about roof top equipment. New renderings and a roof plan have been provided showing a proposed area for rooftop HVAC equipment at the center of the building over the bathrooms that provides 5' high screening of metal siding that matches the siding at the upper portions of the building.

Standard 2- Relationship to the Street

Staff comments indicate that this standard has been met.

Standard 3- Open Spaces

Staff comments requested consideration of more deliberate accommodation of resident circulation to outdoor spaces such as the healing garden. It was also noted that landscape plans do not show what is fenced vs. open or specific designs of each landscape amenity.

Response:

Additional entrances have been added at the men's and women's dormitories that are articulated with projecting enclosures that provide direct access to both the healing garden and the main garden space directly adjacent to the day room.

Additional landscape drawings have been developed showing extent of proposed fencing, fencing details, and more detail on the specific design of the garden spaces.

Standard 4- Windows and Storage

Staff comments under standard 1 have indicated that the building design successfully incorporates extensive and varied fenestration bringing ample natural light into all of the building's interior spaces.

Staff requested additional information on storage for residents.

The facility includes a large locker room at the front entrance that will be secured and monitored providing each resident with sufficient locker space for back packs and small personal items. A small amount of personal storage and charging stations for phones will be provided in the sleeping areas. In addition, covered bike storage will be provided.

Standard 5 - Screening of Parking

Staff comments indicate that this standard has been met.

Standard 6 - Lodging House Conversion

Staff comments indicate that this standard is not applicable to this project.

Miscellaneous Design Comments from Planning Board Workshop #1

In addition to design comments focused on the applicable design standards, there were some additional comments relating to design that the design team would like to respond to:

- Design Parameters for COVID 19:

The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.

-All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. We have 7' to 8' distance typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to affor some privacy and to provide a physical barrier between guests to further protect against COVID transmission.

-CDC space recommendations equate to 113 s.f. of floor area be allocated per person in the sleeping areas. We are showing a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

-CDC recommendations include maintaining 6' distances between guests in eating areas as well. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

-CDC also provides guidance for HVAC systems to minimize transmission that include:

- Maximization of outside air intake
- Use of HEPA level filters that are changed out at regular intervals
- Supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems
- Humidity control systems

We will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

- Re-use Options for the Building:

The ultimate goal of providing services for those without shelter is to become so successful at creating housing solutions for all that the shelter is no longer needed. The Planning Board asked if the building's design would allow for re-use for a different purpose in the future.

The proposed building is one story with high ceilinged, open spaces, modern office and meeting space, and plentiful natural light. In addition, it is planned as a pre-engineered structure that will utilize a framing system with longer spans that minimizes columns. All of these features make for a very flexible building that could easily accommodate a variety of uses such as:

- Community Center
- Educational or Vocational Training Center
- City central storage or operations facility for a variety of departments
- Call center or other office use with large open office area needs
- Day care facility
- Emergency Storm Shelter

Front Perspective

WSA
Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Entrance Plaza

Winton Scott Architects

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• 207.774.4811 • wintonscott.com

Cafeteria / Dayroom

Winton Scott Architects

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East Facade

South Facade

North Facade

West Facade

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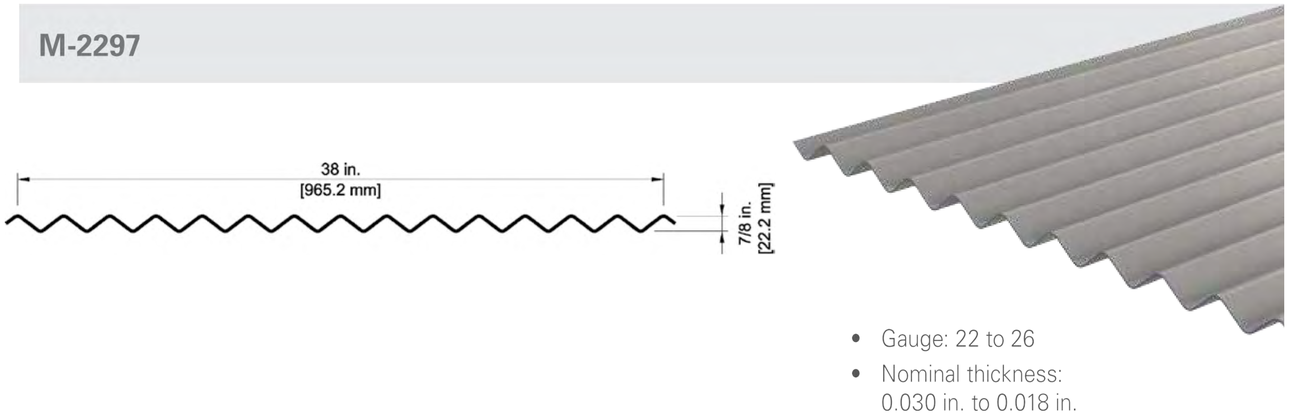
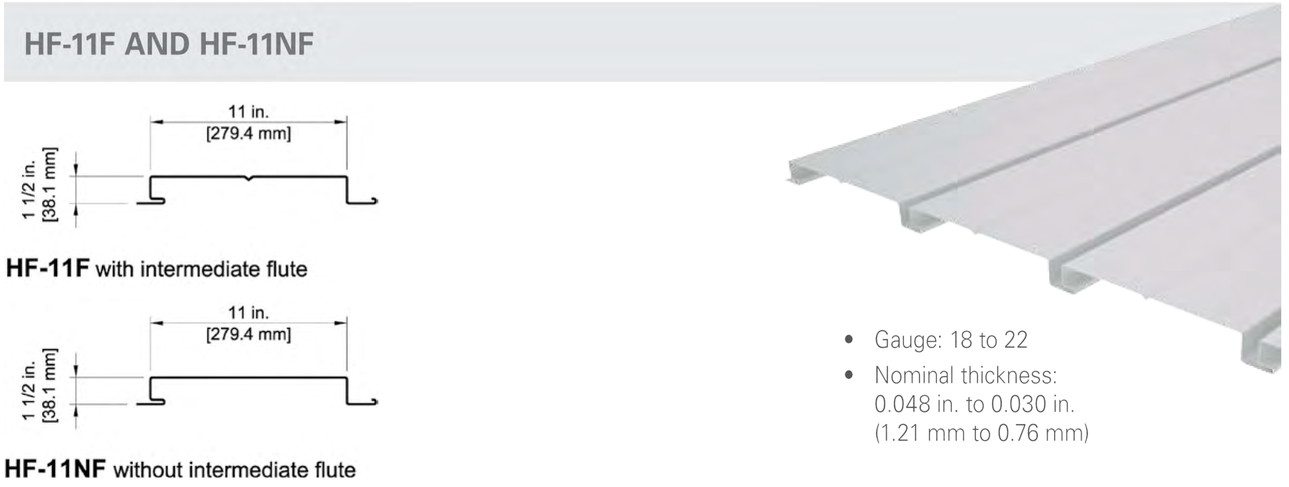
BRICK - Front Entrance Area

ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



- Gauge: 22 to 26
- Nominal thickness: 0.030 in. to 0.018 in.

HORIZONTAL METAL SIDING - Upper portion of Dormitories and Walls at Central Gathering Space Sloped Roof. (Medium Gray)



- Gauge: 18 to 22
- Nominal thickness: 0.048 in. to 0.030 in. (1.21 mm to 0.76 mm)

VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)

WSA
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406'-0"

69'-0"

64'-4"

GENDER NEUTRAL SLEEPING SPACE

GENDER NEUTRAL SLEEPING SPACE

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 60 Beds

STAFF

TOILET

TOILET

LINEN DISP.

MEN

WOMEN

GNDR NTRL

UTILITY/HVAC

GNDR NTRL

STAFF

TOILET

LINEN DISP.

DAY ROOM / CAFETERIA (212 SEATS)

DIRTY LINENS

CLEAN LINENS

STAFF LAUNDRY / MAINT

GUEST LAUNDRY

DONATION & MISC STORAGE

TOILET

TOILET

SMALL GROUP 15' x 24'

SMALL GROUP 15'x12'

SMALL GROUP 15'x12'

JAN. CL.

TOILET

DNTL LAB

DENTAL SUITE

CNSLNG

SRVR.

LAB

SECURE MEDS

TOILET

EXAM 1

EXAM 4

TRIAGE

EXAM 2

EXAM 3

WAIT'G

HEALTH CLINIC

CHECK -IN

TEAM ROOM

STAFF ENTRY

MEETING

STOR.

STAFF LCKRS.

SHWR

STAFF LCKRS

WOMEN

MEN

COPY

BREAK

MEETING

OFFICE AREA

OFFICE 16 10'x11'

OFFICE 15 10'x11'

OFFICE 14 10'x11'

OFFICE 13 10'x11'

OFFICE 12 10'x11'

OFFICE 11 10'x11'

OFFICE 10 10'x11'

OFFICE 9 10'x11'

OFFICE 8 10'x11'

DIRECTOR OFFICE 7 11'x16'-0"

DOUBLE OFFICE 1 10'x16'-6"

OFFICE 2 10'x11'

OFFICE 3 10'x11'

OFFICE 4 10'x11'

OFFICE 5 10'x11'

OFFICE 6 10'x11'

KITCHEN 47' x 21'

TOILET

TOILET

FOYER

LOADING/ SERVICE AREA

ELEC SERV.

HVAC H2O SPRINKLERS

LOCKERS (220)

ENTRY

TOILET

SECURITY

DAY MNGR

116'-10 1/2"

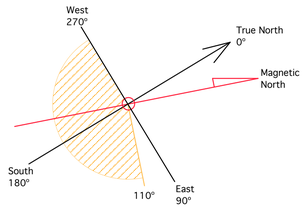
68'-6"

141'-10 1/2"

FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



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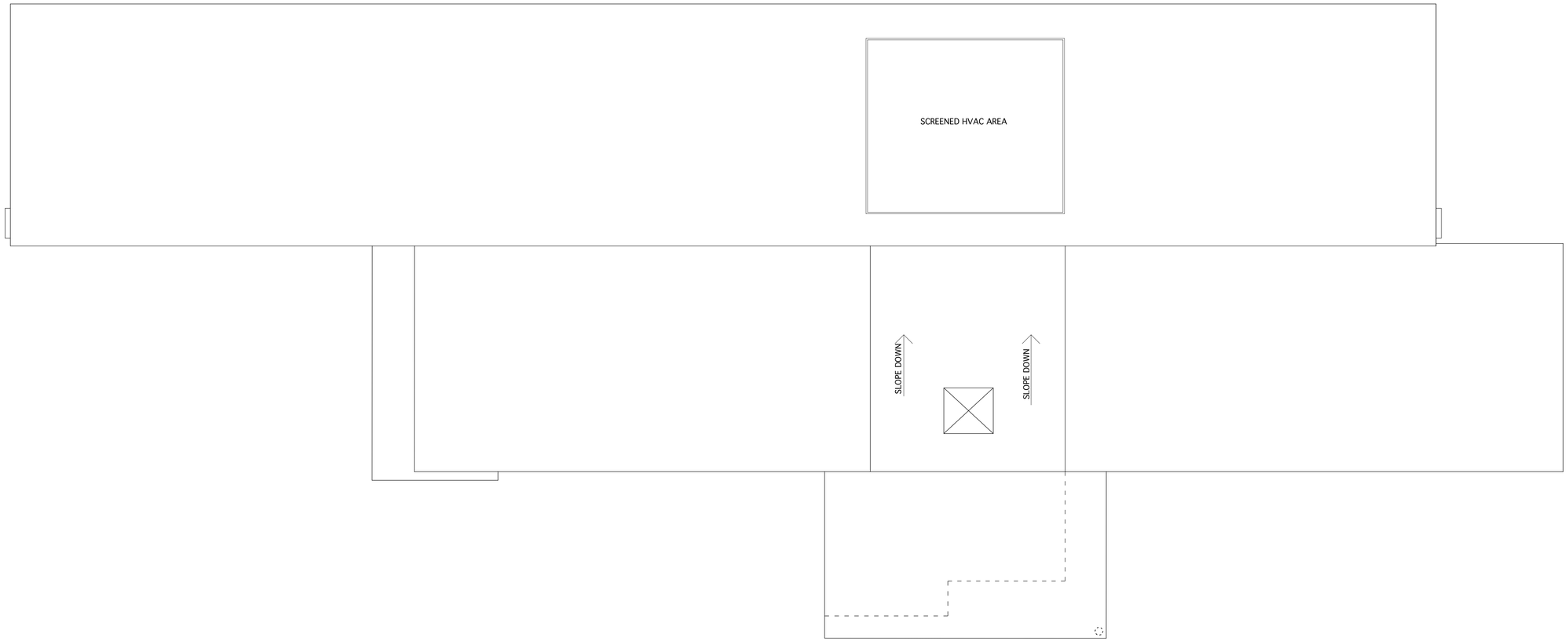

ROOF PLAN

SCALE: 1/16" = 1'-0"

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Main Gathering Space

Winton Scott Architects

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ATTACHMENT D

STORMWATER MANAGEMENT REPORT
(BASIC STANDARDS AND GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021
REVISED AUGUST 2021

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6.0	PRESENTATION OF ANALYSIS	4
7.0	ASSUMPTIONS	4
8.0	STORMWATER MANAGEMENT OBJECTIVES	4
9.0	STORMWATER MANAGEMENT QUALITY SUMMARY	5
10.0	CHAPTER 500 TREATMENT PERCENT COMPLIANCE	7
11.0	EROSION AND SEDIMENTATION CONTROL (BASIC STANDARDS)	8
12.0	OPERATIONS AND MAINTENANCE	8
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Attachments

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed Homeless Service Center on an undeveloped 28.92-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

- Total Area of Site: Lot 4 = 28.92 acres (305,505 sf)
- Total Site Area to be Disturbed: Approx. 5.8 acres
- Total Developed Area After Construction: 5.35 acres
- Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
- Total Proposed Impervious Area: 138,711 SF (3.18 acres)
- Total Impervious Area After Construction: 145,430 SF (3.34 acres)

The proposed stormwater quality treatment approach utilizes Bioretention Filters, Grassed Underdrained Soil Filters, a Roof Line Drip Edge Filter and a Focalpoint® Bio-filtration system which are all listed in the Maine Best Management Practices (BMPs) manual as acceptable practices to meet the stormwater quality standards required under the general standards. The project intends to provide water quality treatment through these four BMP's and then discharge stormwater to either an existing onsite pipe drainage system or to the well-vegetated northerly fill slopes via sheet flow. Ultimately, the Presumpscot River is the receiving water, just downhill of the site.

The purpose of this analysis and report is to document what measures will be implemented to provide stormwater management for the project to satisfy the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations. Due to the site's proximate location to the Presumpscot River, **the applicant is requesting a waiver of the Flooding Standards as has been previously granted for projects in this area of Portland**. Flood controls are not necessarily due to the location of the development at the low end of the overall Presumpscot River watershed, thus a primary goal is to allow treated runoff to discharge from the site in advance of the overall peak river stage, which in large river watersheds occurs later or after a peak rainfall event. Water quality measures are documented and presented in this analysis.

Erosion and Sedimentation Controls (Basic Standards) will be employed during the construction of this project and are summarized in the Erosion and Sedimentation Control Plans provided on sheets C-5.0, C-8.5, and C-8.6.

2.0 EXISTING SITE CONDITIONS

The existing 28.92±-acre site is identified by the City of Portland Assessor's Office on Tax Map 323/Lot A-3, A-5, and A-10. The lot is identified as Lot 4 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.The site is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- A portion of Lot 4 is held under a conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site. An unnamed tributary flows from east to west on the north side of the site, over to the river.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

The site plans include a base topographic survey prepared by Sebago Technics several years ago. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the development area. The far west side of the site closest to the river is at elevation 30'+/-. The river's flood plain is at elevation 35' per the Subdivision plan.

The site's runoff primarily drains downslope directly to the Presumpscot River via overland flow. The southerly portion of the site contains several catch basins which collect stormwater runoff generated onsite as well as convey runoff generated from the Lucas Tree property and Suburban Propane property. This closed system outfalls at the toe of the fill slope to the west. There are no other apparent drainage systems on site, although a closed storm drainage system within Riverside Street. This system is part of several drainage easements benefitting the lots within the subdivision.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to this fact, **the Applicant is requesting a waiver of the Flooding Standard.** As discussed below, the site's current conditions are characterized by filled land that has naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs, and duff cover. Slopes associated with the manmade fill limits vary from 6 to 33% down to a flatter zone along the river.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The development site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Center site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

A 51,690 SF single story service center facility will be constructed, and site improvements will include 56 parking spaces, a 24' wide primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a 20' perimeter drive around the building for emergency and maintenance access.

Typical surface material types utilized on site include:

- Bituminous Pavement – main drive, sidewalk, and parking areas
- Reinforced Turf – perimeter fire lane
- Modular Block Pervious Pavers – front plaza/entrance and exterior social spaces
- All other areas will be treated with loam and seed and other various plantings in accordance with the project landscape plans

The project will be graded to generally follow the existing contours of the site; high in the east and lower in the west. The proposed homeless shelter building will be located along the westerly (rear) property line. The driveway will span east to west along the shared boundary with the Lucas Tree property with parking in front of the new building to the north of the roadway. The roadway grade will trend down toward the proposed building. An emergency access drive spans around the building that will follow down around the rear of the building. The lower portions of the site will remain as the westerly and northerly boundary lines.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions to comply with the MaineDEP VRAP program. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003 http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm*
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the Flooding Standards is requested, no formal hydrologic analysis using HydroCAD has been performed for Pre- and Post-development conditions. However, the water quality BMP's have been modeled using HydroCAD to demonstrate stage-storage and capacity/routing.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

That detention will not be required to reduce the peak flow rate or meet the Flooding Standards. **A waiver of the Flooding Standards is requested on the basis that Detention is not required to offset peak discharge since the overall watershed peak occurs substantially later than the site's. This so-called "beat the peak" approach has been considered in the past by the city and similar waivers for nearby projects, including most recently Suburban Propane, have been granted.**

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MaineDEP (revised October 2010).
- Designing water quality measures including bioretention filters, grassed underdrained soil filters, roof line drip edge filters, proprietary bio-filtration systems and level spreaders to provide long-term removal of non-point contaminants.

- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual.

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

To meet the General Standards, our office reviewed the MaineDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including:

- Grassed underdrained soil filters,
- Bio-retention filters,
- Vegetated buffers,
- Proprietary devices,
- And infiltration trenches

Following this review and incorporating knowledge of the site and the goals of the project, the stormwater management plan for the project has been designed with multiple BMP's located around the site's perimeter. This allows for proper treatment of the site while minimizing the need for storm drain piping and appurtenances. Although the Applicant is requesting a waiver of the Flooding Standard, it is understood that runoff must be dispersed along the fill slopes to minimize erosion. The proposed scheme will separate the stormwater runoff generated from the site and disperse discharge along the northerly fill slope. In total, there will be:

- Five (5) bioretention filters,
- one (1) grassed underdrained soil filter,
- one (1) Focalpoint® Bio-filtration system, and
- one (1) roof line drip edge filter employed as part of the stormwater management plan.

Level spreaders will be utilized at various locations to disperse discharge from the BMP's. Pretreatment will be utilized on site in the form of deep sump catch basins and rip rap inlets for BMP's to capture larger sediment and particles in the runoff.

In addition to these BMP's, the site design utilizes several pervious surface material treatments which decrease the overall impact of development. The 20' wide perimeter fire lane will be constructed using a reinforced turf material which is generally comprised of a prefabricated plastic grid that can be filled with loam and seed and allowed to grow. This will provide additional lawn area while also allowing for proper exterior access for emergency personnel and staff. The front plaza, main entrance, and southerly common space will utilize modular block pervious pavers which will be broken up with various seating areas, raised planter beds, and tree wells. Both of these surface materials will allow for a certain amount of infiltration of runoff greater than typical bituminous pavement which offers essentially no runoff. Although these areas are not equipped with a subbase material designed for filtration to Maine DEP BMP Technical Manual, it is understood that this approach will provide for a

certain amount of treatment and reduce overall runoff generated on site. This technique replaces approximately 50,985 SF area that would otherwise be constructed with impervious surface.

The following sections summarize the stormwater BMP's that are being employed to meet the water quality standards for the proposed development:

1. Bio-Retention Filter:

   Bio-retention filters will be installed along the westerly (rear) of the site. Five (5) separate filters will be used primarily to treat runoff from the perimeter fire lane that will consist of reinforced turf and adjacent garden/exterior common space. Each basin will receive runoff through direct absorption and primarily shallow concentrated flow via rip rap inlets. Runoff will enter the basin and flow through a filter section before being collected in underdrain pipes and directed to individual outfalls on the westerly fill slope. The bio-retention filter section was designed in accordance with Section 7.2 of the BMPs Technical Design Manual dated May 2016.

   The basins will be equipped with gate valves or equal control mechanism, that will be adjusted in order to control and discharge the water quality volume within 24-48 hours. Overflow structures in the form of 6" diameter standpipes with domed grates will be placed 6" above the filter bed in each basin to divert excess amounts of runoff to the underdrain pipes that discharge out to rip rap aprons or level lip spreaders on the northerly and westerly fill slopes.

   In total, the bio-retention filters will provide treatment for 11,998 SF of impervious area and 36,215 SF of developed area. This accounts for 8.65% of the total impervious area and 15.55% of the total developed area. Design calculations for the bio-retention filters are included in Attachment A. Please see Attachment B for the Stage-storage calculations.

2. Grassed Underdrained Soil Filter:

   One Grassed Underdrained Soil Filter (GUSF) will be employed to the north of the site to capture and treat runoff generated from the main entrance, main access drive, parking area, front plaza, and lawn areas. Runoff will primarily be directed via pipe flow to the basin before flowing through an 18" filter media and collected and conveyed in an underdrain system that will discharge the flow to the perimeter of the site. The GUSF section was designed in accordance with Section 7.1 of the BMPs Technical Design Manual dated May 2016.

   An overflow structure in the form of an outlet control manhole structure with a 2' diameter domed grate will be set 18" above the filter bed in the basin to discharge excess amounts of runoff to the perimeter of the site. The GUSF basin will discharge to a level lip spreader where runoff will be dispersed to sheet flow on the northerly fill slope. The underdrain inlet pipe to the outlet control structures will be installed with a pipe cap with an orifice sized to control the water quality volume and discharge within 24-48 hours.

   In total, the grassed underdrained soil filter will provide treatment for 53,619 SF of impervious area and 76,582 SF of developed area. This accounts for 38.66% of the total impervious area and 32.89% of the total developed area. Please see attached design calculations for the GUSF which are included in Attachment A. The stage-storage and drawdown calculation data is provided in Attachments B and C.

3. Roof Line Drip Edge Filter:

A roof line drip edge filter will be employed on the westerly (rear) side of the building to capture and treat runoff generated from a portion of the roof area. Water will fall directly onto the crushed stone surface, travel down through a reservoir layer, through a filter layer and be captured in underdrain pipes that will outlet to a level lip spreader on the westerly fill slope. The roof line drip edge filter section was designed in accordance with Section 7.5 of the BMPs Technical Design Manual dated May 2016.

In total, the roof line drip edge filter will provide treatment for 31,516 SF of impervious area and 31,516 SF of developed area. This accounts for 22.72% of the total impervious area and 13.53% of the total developed area. The design calculations for the drip edge filter are included in Attachment A.

4. Focalpoint® Bio-filtration System:

A FocalPoint® system[2] will be employed to provide water quality treatment for multiple area including the east half of the proposed building, the westerly garden/exterior common space, the loading dock area, and lawn area. The proprietary system consists of a shallow (6-12") depression filled with 18" of a soil filter media and planted with a variety of grasses and shrubs. Runoff entering the cell is detained temporarily before passing through the filter media. The filter media has a high flow rate (100 in/hr) that allows high amounts of runoff to be handled in a smaller footprint. The stormwater is then controlled below the filter section with a chamber storage system before being released downstream to a treatment row. An underdrain pipe then collects and discharges the stormwater from the system and connects to the existing closed drainage system in the southeast corner of the site. This closed drainage system outlets to the west beyond the toe of the existing fill slope where runoff ultimately enters the river. An overflow standpipe with a beehive grate is set approximately 6" above the filter bed and captures stormwater that cannot be handled in larger storm events.

The FocalPoint® will provide treatment for 37,261 SF of impervious area and 61,519 SF of developed area. This accounts for 26.86% of the total impervious area and 26.42% of the total developed area. Design calculations for the FocalPoint® Bio-filtration system are provided in Attachment D of this Application.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.18 acres of impervious surface. The proposed disturbed area will be about 5.8 acres. The stormwater management plan for the project utilizes four different types of BMP's: grassed underdrained soil filters, bio-retention filters, a proprietary Focalpoint® bio-filtration system and a roof line drip edge filter. By using multiple BMP's, discharge can be separated and divided along the property boundary to avoid erosion that might be experienced with one centralized treatment method. In addition to this non-centralized treatment scheme, runoff will be dispersed at the development boundaries with level spreaders to further dissipate runoff generated on site. The following table demonstrates the treatment percentages achieved for the project:

[2] See https://www.maine.gov/dep/land/stormwater/stormwaterbmps/manufactured-systems/focalpoint-january2017.pdf

Table 1: Portland Homeless Services Center Treatment Summary				
Treatment Method	**Impervious**		**Developed**	
	SF	**Percent**	**SF**	**Percent**
Bio-Retention Filter	11,998	8.65	36,215	15.55
Grassed Underdrain Soil Filter	53,619	38.66	76,582	13.53
Roof Line Drip Edge Filter	31,516	22.72	31,516	32.89
Focalpoint® System	37,261	26.86	61,519	26.42
Total	**134,394**	**96.89**	**205,832**	**88.39**
Required	**-**	**95**	**-**	**80**

As the table presents, the proposed treatment percentages exceed the required levels of 95% impervious area treatment and 80% developed area treatment.

11.0 EROSION AND SEDIMENTATION CONTROL (BASIC STANDARDS)

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are included in the project plan set. Erosion control BMP's, as described in the MaineDEP Erosion and Sediment Control BMP Manual, will be utilized throughout the project. BMP's proposed include but are not limited to:

- Stabilized Construction Entrance
- Siltation fencing/erosion control mix berms
- Inlet/Outlet protection
- Temporary construction stabilization
- Slope stabilization
- Level lip spreaders

Level lip spreaders are crucial to the success of the stormwater management plan as the runoff generated onsite will be dispersed along the existing fill slopes. Level lip spreaders will be employed at all BMP outfalls that discharge to the perimeter fill slopes. In total, five (5) level lip spreaders will be employed as part of the development. The contractor will also be required to employ ESC BMP's for any material stockpiles as well as any areas left denuded for extended periods of time during construction. The ESC plan for the project complies with the requirements detailed in Attachment A of Maine DEP's chapter 500 Rules for Stormwater Management, thus satisfying the Basic Standard.

12.0 OPERATIONS AND MAINTENANCE

The stormwater management facilities will be maintained by the Applicant or their assigns after construction is complete. The general contractor will be responsible for maintenance during construction. The contract documents will require that the contractor designate a person for maintenance of the facilities during construction as required by this application. Long term operation/ maintenance schedules for the facilities are provided in the updated O&M Manual included in Attachment E to this report.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

14.0 CONCLUSION

The Stormwater Management Plan for this project outlines the measures proposed to achieve compliance with the Chapter 500 Stormwater Management standards for water quality treatment. The design includes stormwater quantity controls including storage components within the bio-retention filters, grassed underdrained soil filter, roof drip edge filter, and subsurface chamber system in the Focalpoint® system. The site will discharge and re-disperse stormwater runoff to sheet flow along the north and west fill slopes and ultimately flow to the Presumpscot River, which is major river segment, thus the applicant is seeking a waiver of the flooding standards. Other than the proprietary treatment system, the majority of the runoff generated will ultimately discharge directly onto the north and west fill slopes. The drainage scheme for the project utilizes multiple stormwater filtration basins with multiple discharges around the site, rather than a traditional centralized stormwater basin such as a wet pond. This approach will redisperse stormwater to sheet flow and back to its natural drainage course as it makes its way to the river. A minor amount of development area will direct runoff to the municipal street system and these impacts are considered insignificant.

Based on the proposed design, the runoff from the proposed development will be captured and conveyed in a manner that will not have an adverse impact to the surrounding stormwater systems or the environment.

15.0 ATTACHMENTS

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

ATTACHMENT A
WATER QUALITY CALCULATIONS

Portland Homeless Service Center - Stormwater Management Summary

08.11.2021
Designed By: KAB
Checked By: SRB

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	31516	0	31,516	31,516	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	53619	22,963	76,582	53,619	22,963
103a	0	7,664	7,664	0	0
103b	37261	24,258	61,519	37,261	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

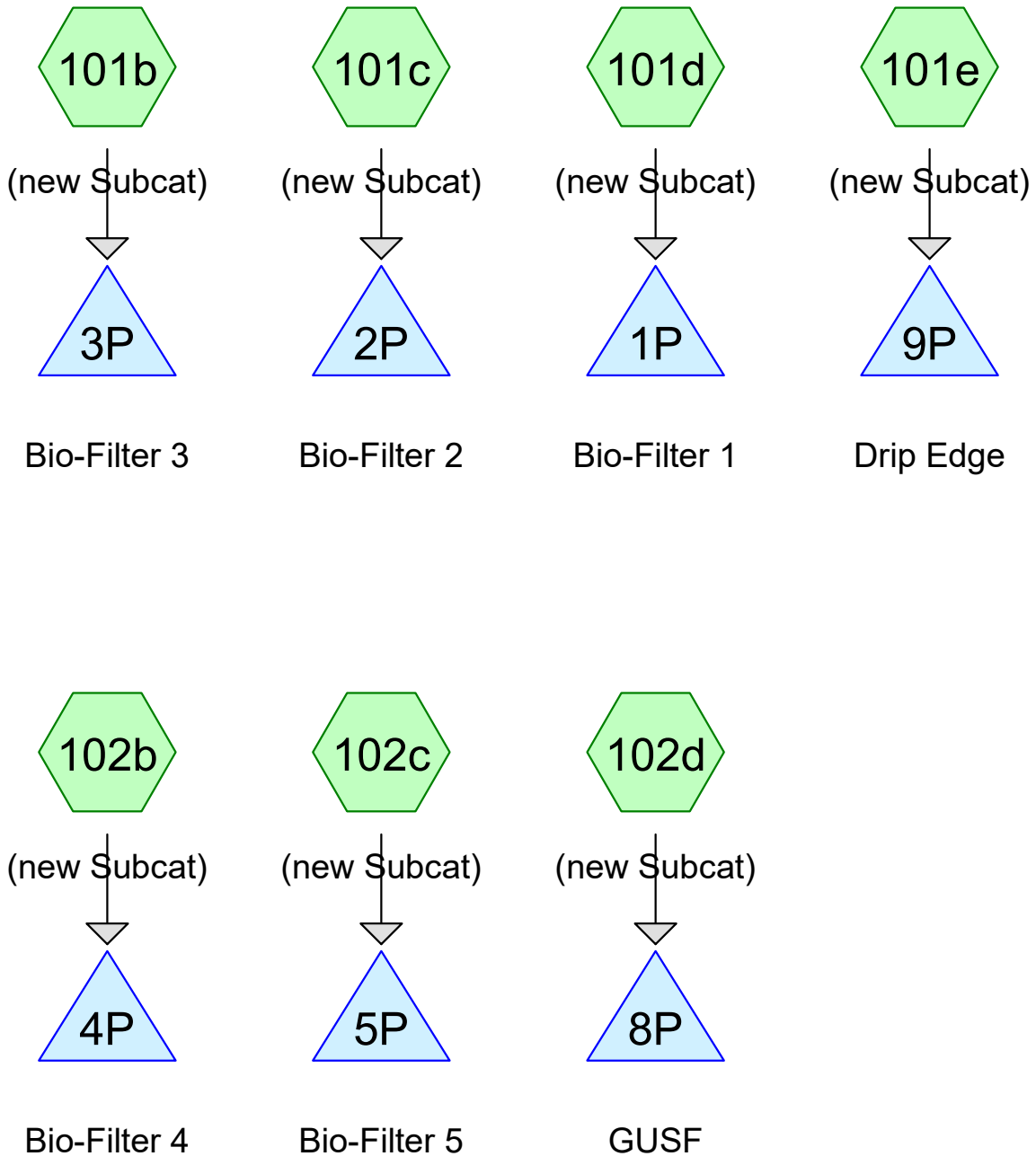
BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,234	5,728	3,140	3,226
101e	Roof Line Drip Edge Filter	2,626	2,910	-	-
101a, 102a, 103a, 104 (untreated)	-	-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

ATTACHMENT B
HYDROCAD STAGE-STORAGE REPORTS



Subcat Reach Pond Link

Routing Diagram for 3824.01_post-dev
Prepared by {enter your company name here}, Printed 8/11/2021
HydroCAD® 10.10-4a s/n 01265 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 101b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af, Depth> 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
281	98	Water Surface, HSG C
4,228	74	>75% Grass cover, Good, HSG C
4,509	75	Weighted Average
4,228		93.77% Pervious Area
281		6.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,669	87	Dirt roads, HSG C
547	98	Water Surface, HSG C
3,227	74	>75% Grass cover, Good, HSG C
7,443	82	Weighted Average
6,896		92.65% Pervious Area
547		7.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af, Depth> 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
427	98	Water Surface, HSG C
4,816	98	Unconnected pavement, HSG C
661	74	>75% Grass cover, Good, HSG C
5,904	95	Weighted Average
661		11.20% Pervious Area
5,243		88.80% Impervious Area
4,816		91.86% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101e: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
27,879	98	Roofs, HSG C
3,637	98	Water Surface, HSG C
31,516	98	Weighted Average
31,516		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
274	98	Water Surface, HSG C
3,532	74	>75% Grass cover, Good, HSG C
3,806	76	Weighted Average
3,532		92.80% Pervious Area
274		7.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
793	98	Water Surface, HSG C
1,191	98	Paved parking, HSG C
12,606	74	>75% Grass cover, Good, HSG C
14,590	77	Weighted Average
12,606		86.40% Pervious Area
1,984		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,226	98	Water Surface, HSG C
22,963	74	>75% Grass cover, Good, HSG C
50,393	98	Paved parking, HSG C
76,582	91	Weighted Average
22,963		29.98% Pervious Area
53,619		70.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 1P: Bio-Filter 1

Inflow Area = 0.136 ac, 88.80% Impervious, Inflow Depth > 5.21" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af
Outflow = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 2%, Lag= 1.3 min
Primary = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.61' @ 12.09 hrs Surf.Area= 598 sf Storage= 528 cf

Plug-Flow detention time= 94.3 min calculated for 0.058 af (99% of inflow)
Center-of-Mass det. time= 90.4 min (853.6 - 763.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.83'	775 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.83	427	0.0	0	0
62.50	427	0.0	0	0
64.00	427	33.0	211	211
64.50	575	100.0	251	462
65.00	678	100.0	313	775

Device	Routing	Invert	Outlet Devices
#1	Primary	61.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.83' / 61.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.72 cfs @ 12.09 hrs HW=64.61' (Free Discharge)
- **1=Culvert** (Passes 0.22 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.03 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.19 cfs @ 1.09 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.50 cfs @ 0.90 fps)

Summary for Pond 2P: Bio-Filter 2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 0.171 ac, 7.35% Impervious, Inflow Depth > 3.80" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af
Outflow = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af, Atten= 39%, Lag= 7.8 min
Primary = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.58' @ 12.20 hrs Surf.Area= 781 sf Storage= 658 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 116.1 min (925.0 - 808.9)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	1,012 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	547	0.0	0	0
60.50	547	0.0	0	0
62.00	547	33.0	271	271
62.50	757	100.0	326	597
63.00	905	100.0	416	1,012

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.45 cfs @ 12.20 hrs HW=62.58' (Free Discharge)
- **1=Culvert** (Passes 0.16 cfs of 1.18 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.04 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.11 cfs @ 0.92 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.75 fps)

Summary for Pond 3P: Bio-Filter 3

Inflow Area = 0.104 ac, 6.23% Impervious, Inflow Depth > 3.11" for 25 Year event
Inflow = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af
Outflow = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af, Atten= 32%, Lag= 8.1 min
Primary = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.55' @ 12.22 hrs Surf.Area= 398 sf Storage= 327 cf

Plug-Flow detention time= 124.4 min calculated for 0.027 af (100% of inflow)
Center-of-Mass det. time= 123.6 min (950.2 - 826.6)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	281	0.0	0	0
60.50	281	0.0	0	0
62.00	281	33.0	139	139
62.50	384	100.0	166	305
63.00	514	100.0	225	530

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.23 cfs @ 12.21 hrs HW=62.55' (Free Discharge)
- **1=Culvert** (Passes 0.08 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.06 cfs @ 0.73 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.15 cfs @ 0.60 fps)

Summary for Pond 4P: Bio-Filter 4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 0.087 ac, 7.20% Impervious, Inflow Depth > 3.21" for 25 Year event
Inflow = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af
Outflow = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af, Atten= 47%, Lag= 11.5 min
Primary = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 65.04' @ 12.27 hrs Surf.Area= 387 sf Storage= 314 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 128.5 min (952.7 - 824.2)

Volume	Invert	Avail.Storage	Storage Description
#1	62.33'	515 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.33	274	0.0	0	0
63.00	274	0.0	0	0
64.50	274	33.0	136	136
65.00	378	100.0	163	299
65.50	489	100.0	217	515

Device	Routing	Invert	Outlet Devices
#1	Primary	62.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.33' / 61.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	62.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	65.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	65.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.15 cfs @ 12.27 hrs HW=65.04' (Free Discharge)
- **1=Culvert** (Passes 0.06 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.62 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.09 cfs @ 0.51 fps)

Summary for Pond 5P: Bio-Filter 5

Inflow Area = 0.335 ac, 13.60% Impervious, Inflow Depth > 3.30" for 25 Year event
Inflow = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af
Outflow = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af, Atten= 16%, Lag= 4.9 min
Primary = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.15' @ 12.16 hrs Surf.Area= 955 sf Storage= 957 cf

Plug-Flow detention time= 116.4 min calculated for 0.089 af (96% of inflow)
Center-of-Mass det. time= 94.1 min (915.8 - 821.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.33'	1,311 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.33	793	0.0	0	0
62.00	793	0.0	0	0
63.50	793	33.0	393	393
64.00	917	100.0	428	820
64.50	1,047	100.0	491	1,311

Device	Routing	Invert	Outlet Devices
#1	Primary	61.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.33' / 60.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.03 cfs @ 12.16 hrs HW=64.14' (Free Discharge)
- **1=Culvert** (Passes 0.32 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.05 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.27 cfs @ 1.22 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.70 cfs @ 1.01 fps)

Summary for Pond 8P: GUSF

Inflow Area = 1.758 ac, 70.02% Impervious, Inflow Depth > 4.76" for 25 Year event
Inflow = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af
Outflow = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af, Atten= 37%, Lag= 5.8 min
Primary = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 63.00' @ 12.17 hrs Surf.Area= 4,876 sf Storage= 8,030 cf

Plug-Flow detention time= 117.2 min calculated for 0.565 af (81% of inflow)
Center-of-Mass det. time= 44.3 min (825.1 - 780.8)

Volume	Invert	Avail.Storage	Storage Description
#1	58.75'	8,051 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.75	3,226	0.0	0	0
61.00	3,226	0.0	0	0
62.50	4,411	100.0	5,728	5,728
63.00	4,880	100.0	2,323	8,051

Device	Routing	Invert	Outlet Devices
#1	Device 4	62.50'	**60.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Device 4	58.67'	**0.8" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	58.75'	**6.0" Round Culvert** L= 7.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.75' / 58.67' S= 0.0114 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#4	Primary	58.57'	**12.0" Round Culvert** L= 18.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.57' / 58.40' S= 0.0094 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#5	Device 3	58.75'	**2.400 in/hr Exfiltration over Surface area**

Primary OutFlow Max=5.91 cfs @ 12.17 hrs HW=62.99' (Free Discharge)
└**4=Culvert** (Inlet Controls 5.91 cfs @ 7.52 fps)
  ├**1=Orifice/Grate** (Passes < 17.44 cfs potential flow)
  └**2=Orifice/Grate** (Passes < 0.03 cfs potential flow)
    └**3=Culvert** (Passes < 1.49 cfs potential flow)
      └**5=Exfiltration** (Passes < 0.27 cfs potential flow)

Summary for Pond 9P: Drip Edge

Inflow Area = 0.724 ac,100.00% Impervious, Inflow Depth > 5.56" for 25 Year event
Inflow = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af
Outflow = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af, Atten= 73%, Lag= 20.3 min
Primary = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 67.40' @ 12.41 hrs Surf.Area= 3,637 sf Storage= 2,761 cf

Plug-Flow detention time= 15.5 min calculated for 0.271 af (81% of inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	63.83'	2,910 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
63.83	3,637	0.0	0	0
64.50	3,637	0.0	0	0
65.50	3,637	0.0	0	0
67.50	3,637	40.0	2,910	2,910

Device	Routing	Invert	Outlet Devices
#1	Primary	63.83'	**6.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.83' / 62.65' S= 0.0118 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=1.13 cfs @ 12.41 hrs HW=67.40' (Free Discharge)
1=Culvert (Barrel Controls 1.13 cfs @ 5.76 fps)

ATTACHMENT C
DRAWDOWN CALCULATIONS

Portland Homeless Services Center
BMP Drawdown Calcs

08.04.2021
Designed By: KAB
Checked By: SRB

Drawdown Calculation - GUSF #1

Orifice Diameter =0.83 in

Elev. (ft)	Depth (ft)	Surface Area (sq.ft)	Ave. End Area (sq.ft)	End Area Depth (ft)	Incremental Volume (cf)	Head, h (ft)	Orifice Flow (cfs)	Drawdown Time (secs)	Drawdown Time (hours)
63.50	1.00	2,040	4411.00	0.50	2205.50	3.17	0.0322	68497.56	19.027
63.00	0.50	1,773	3226.00	0.50	1613.00	2.67	0.0296	54585.39	15.163
62.50	0.00	1,520	0.00	0.00	0.00	2.17	0.0266	0.00	0.000
								TOTAL	***34.190***

Orifice Formula	**$CA\ (2gh)^{1/2}$**	
Orifice Diameter:	**0.83**	inch
A:	0.003757	sq.ft
Filter Thickness:	2.17	feet
g:	32.174	ft/s^2
C:	0.6	Orifice/Grate

ATTACHMENT D
FOCALPOINT® DESIGN WORKSHEET/HYDROCAD REPORT

DESIGN WORKSHEET

FOCALPOINT

MAINE CHAPTER 500 PROJECTS

1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf) See step 2 to determine if minimum size is appropriate.**
   - Tributary impervious area: = 0.86 ac **(A)**
   - Tributary pervious area: = 0.56 ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 189 sf
   - FocalPoint bed area provided: = 200 sf
   - Dimensions of proposed FocalPoint: = 10 ft x 20 ft

2. **A 0.95-in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 400 ft^3
   - Peak ponding depth from 0.95-in 24-hr storm event: = below mulch in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = 1 : 2

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1-yr 24-hr storm event.**
   - 1-yr 24-hr peak flowrate: = 1.82 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (HD singles or taller - 1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 91

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled release of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☐

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer's representative**
   - The design has been reviewed by ACF Environmental ☐
   - Engineer will coordinate installation inspection with ACF Environmental ☐

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within FocalPoint must be a minimum of 174 sf per 1.0 acre of impervious area (26 sf per 0.15 acres). Thickness of the media is to be no less than 1.5 ft (18 in).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:

FOCALPOINT ACCESSORIES:

Pretreatment - Rain Guardian Turret

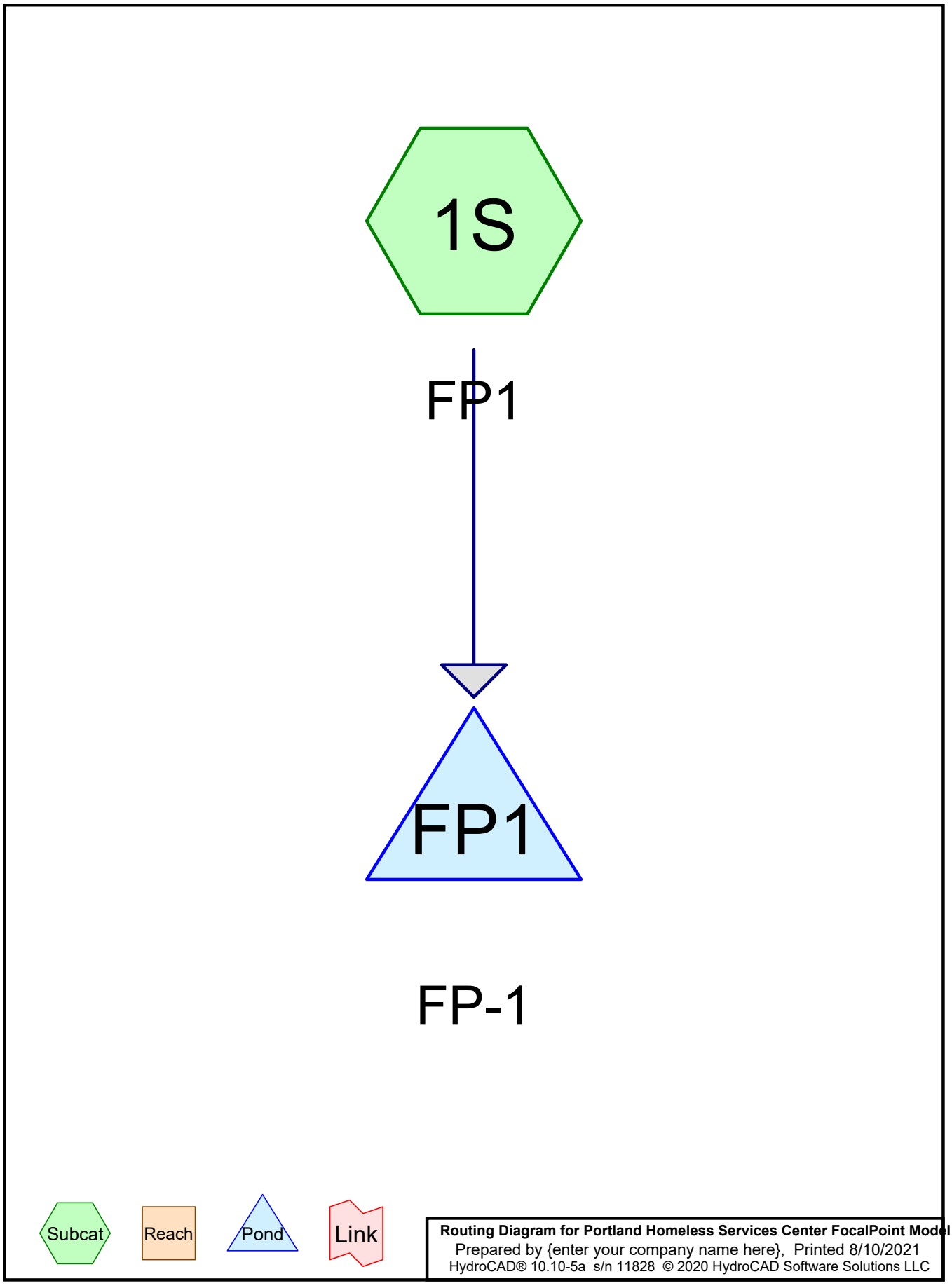
Pretreatment - Rain Guardian Foxhole

Pretreatment - PreTx

Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com


1S
FP1
FP1
FP-1
Subcat
Reach
Pond
Link
Routing Diagram for Portland Homeless Services Center FocalPoint Model
Prepared by {enter your company name here}, Printed 8/10/2021
HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: FP1

Runoff = 0.10 cfs @ 12.15 hrs, Volume= 501 cf, Depth> 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 0.95-in Rainfall=0.95"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 0.10" for 0.95-in event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 501 cf
Outflow = 0.10 cfs @ 12.15 hrs, Volume= 500 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.10 cfs @ 12.15 hrs, Volume= 500 cf
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.77' @ 12.15 hrs Surf.Area= 200 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 499 cf (100% of inflow)
Center-of-Mass det. time= 0.1 min (864.7 - 864.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.15 hrs HW=61.77' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.75' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 1S: FP1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf, Depth> 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-YR Rainfall=2.60"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 1.05" for 1-YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf
Outflow = 1.29 cfs @ 12.20 hrs, Volume= 5,358 cf, Atten= 29%, Lag= 6.0 min
Primary = 0.46 cfs @ 11.90 hrs, Volume= 4,675 cf
Secondary = 0.83 cfs @ 12.20 hrs, Volume= 683 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.62' @ 12.20 hrs Surf.Area= 200 sf Storage= 663 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (809.5 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.46 cfs @ 11.90 hrs HW=62.10' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Secondary OutFlow Max=0.82 cfs @ 12.20 hrs HW=64.62' (Free Discharge)
└**2=Orifice/Grate** (Weir Controls 0.82 cfs @ 1.12 fps)

ATTACHMENT E
OPERATION & MAINTENANCE MANUAL

HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE MANUAL FOR STORMWATER FACILITIES

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

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I. INTRODUCTION

Runoff from developed areas may contain a number of contaminants especially when emanating from rooftops, paved or lawn areas. This runoff can contain a significant amount of non-point contaminants, which can have an adverse impact on the receiving waters. The installation of soil media filters, vegetated buffer strips and other stormwater best management practices can significantly reduce the non-point pollution discharge from the developed area.

The effectiveness of BMP's and other components of the system are dependent on their upkeep and maintenance to assure they meet their design function over an extended period of time. It is critical that the stormwater management facilities are inspected on a regularly scheduled basis, and that maintenance is performed on an as needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that transport the flow to the outlets or treatment measures. Thus, maintenance should be directed to the total system, not just the BMP's.

The purpose of this document is to define in detail the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended on a long-term basis for the City of Portland Homeless Services Center. This Operations and Maintenance Manual is specific to the proposed stormwater measures utilized to execute a successful stormwater management plan. Subsequent sections identify individual maintenance items, give a brief commentary of the function and need of the item, a description of the work required, and a suggested frequency of accomplishment. While the suggested programs and schedules must be adapted to specific projects, the material presented should provide guidance for a successful long-term program.

A. Guidelines Overview

A summary of the individual components of stormwater management facilities for this project has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis, which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The owner/operator should review the design drawings and documents carefully to understand the particular elements of the project.

The end of this section should allow the owner/operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

This report includes the Operation and Maintenance requirements for any potential BMP identified in the Stormwater Management Report for this project.

B. Responsible Party

The responsible party for operation and maintenance of the stormwater and other site infrastructure will be the applicant or their agents or assigns. A copy of an unexecuted Stormwater Drainage System Maintenance Agreement is included in Appendix C.

II. PROJECT OVERVIEW

Key permits issued (or applied for) on the project include:

- City of Portland Site Plan Approval
- MaineDEP Site Location of Development Permit (Delegated Review by City of Portland)
- Maine Construction General Permit Stormwater General Permit

A copy of the permits and Stormwater Management Report should be appended to this manual as Appendix E. The Owner/Operator of the stormwater management system should review these permits for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained Gorrill Palmer for civil engineering for the development project. Gorrill Palmer has prepared the design for the stormwater management facilities and may be contacted at:

Gorrill Palmer
707 Sable Oaks Drive – Suite 30
South Portland, Maine 04106
207.772.2515

The applicable plans and design documents which apply to the project are:

1. Civil Site Plans Prepared by Gorrill Palmer
2. The Erosion Control/Sedimentation Control Plan for the project
3. The Stormwater Management Plan for the project

A copy of these documents should be retained with this manual.

The proposed design includes inlets, stormwater conveyance lines, grassed underdrained soil filters, bio-retention filters and outlet control structures.

The key receiving waters for this project is the Presumpscot River which is under tidal influence.

The manual is intended for general guidance; however, any substituted deviations from the manual should be reviewed with respect to provisions of Appendix D.

III. STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS

The following narratives describe the inspection/maintenance provisions for the Stormwater Management system. Proper O&M is necessary to make sure the system will provide its intended purpose of conveying runoff, removing a substantial amount of the suspended solids, and other contaminants in the stormwater runoff.

A. Stormwater Inlets

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets include catch basins and field inlets. Field inlets exist in the bio-retention filters and grassed underdrained soil filters as overflow structures and in lawn areas in front of the building.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets near the sidewalk areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the buildings.

Frequency: All inlets should be inspected on a quarterly basis, and after/during significant storm events i.e. >1" rainfall).

Maintenance Personnel: The maintenance personnel will perform the normal maintenance/ inspections of the inlets and tributary drainage system.

Comments: Maintenance of inlets is critical on this project.

B. Tributary Drainage System

Preface: Stormwater from the project will be collected in catch basins in the roadway/parking lot and transported to treatment basins or directed through filters and into a conveyance (tributary) system which transports the flow to individual outfalls. The conveyance systems

serving each BMP will be principally overland flow discharging to piped drain systems other than the bio-retention filters which receive stormwater via rip rap inlets along the edge of the reinforced turf fire lane. Most sediment generated will be collected in the roadway catch basins and trapped in those structures or within the rip rap inlets leading down to the basins. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the onsite systems.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that the carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems, the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with debris.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long-term basis, and that its operation does not transport excessive sediments to any downstream treatment device or the receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. If a temporary filter bag has been designated for the inlet during construction, silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with the sediment and replaced during construction. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the Development. The removed material must be disposed of at an approved site for such materials.

If sediment in the pipeline is observed, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed.

Frequency: The tributary drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

C. Grassed Underdrained Soil Filter

Preface: The grassed underdrained soil filter collects stormwater runoff from drainage swales and the closed drainage system in the roadway/parking area before passing it through a treatment section and discharging onto the south and east sides of the site. The soil filter is an underdrain system with multi-media aggregates.

Inspection/Monitoring: The soil filter can be inspected visually and should be inspected regularly and especially after a significant rain event (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. This is particularly important around ditch lines and pipe inlets.

Large Debris

Large debris such as trash should be removed on a routine basis.

Turf Maintenance

The basin should be allowed to develop for one full growing season post-construction prior to their first mowing. This allows for natural re-seeding of grass seed mixes and establishment of a healthy stand of grass. After the first year, only mow grass two times per year maximum. A minimum 6" height of grass should maintained in the filter at all times.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example,

the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.

4. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
5. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.

Water the grass in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the grass to re-establish.

Frequency: The grassed underdrained soil filters should be inspected semi-annually and maintained as necessary.

Maintenance/Inspection Responsibility: The Owner or an outside agent is responsible for inspection and maintenance of the porous pavement areas.

Comments: The grassed underdrained soil filters are critical to the stormwater management plan as they provide treatment for the entire road and driveways/front yards and roofs. Snow storage is prohibited within the basins.

D. Bio-Retention Filters

Preface: The bio-retention filters are soil filters with planted soil beds, an underdrain system with multi-media aggregates set in a shallow basin. Stormwater runoff is conveyed to the filters from the surface before passing through the filter and into a closed drainage system.

Inspection: The bio-retention filters can be inspected visually. Visual inspections should also occur after large storm events (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. Inlets for each of the bio-filters is through drainage swales or direct sheet flow. It will be important to ensure that debris and grass clippings are properly removed and do not settle in these swales.

Large Debris

Large debris such as trash should be removed on a routine basis.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter. This should also be performed by hand in order to protect the vegetation.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example, the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.
4. Harvest the plants (when applicable). Care should be taken in the removal and temporary storage of the plants so that as many as possible can be harvested for replanting in the soil filter area once the functioning of the device has been restored sufficiently.
5. Remove the mulch layer.
6. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
7. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.
8. Replant the harvested plants and replace any plants that were rendered unusable during or following their removal from the soil filter area.

9. Replace the removed mulch layer with fresh mulch.
10. Water the plants in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the plants to re-establish themselves.

Frequency: The bio-retention filters should be inspected semi-annually and maintained as necessary.

Comments: Snow storage within the filter area is prohibited by Maintenance Personnel.

E. Level Lip Spreaders

Preface: Level spreaders are a vegetated or mechanical structure used to disperse or "spread" concentrated flow thinly over a receiving area to reduce erosion and movement of sediment as well as filter sediment and soluble pollutants, and sediment-attached pollutants.

Inspection: The level spreader should be inspected twice annually and after major storms (i.e. >0.5") for sand accumulation and debris that may reduce its capacity.

Maintenance: The procedures for maintenance are as follows:

Sediment Removal:
Sediment buildup within the swale or storage area should be removed when it has accumulated to approximately 25% of the channel capacity.

Debris:
Remove debris such as leaf litter, branches and tree growth from the spreader.

Snow Storage:
Snow should not be stored within the area of the level spreader.

Frequency: The Level Lip Spreaders should be inspected twice annually and maintained as necessary.

Comments: Reconstruction of the level spreader may be necessary when sheet flow from the spreader channelize. Each of the level spreaders employed as part of the project will receive flow from BMP outlet pipes.

F. Proprietary Treatment Devices (FocalPoint®)

Preface: A FocalPoint® system will be used on site to treat surface runoff from impervious and landscaped area.

Inspection: Inspection of the filter should be performed after each major rainfall event to ensure that stormwater runoff is able to pass through the filters. The vegetation should be inspected and maintained regularly similar to other landscape features on site. The underdrain outlet should be inspected regularly.

Maintenance: Clear inlets and pretreatment devices of debris and sediment. Maintain as instructed by manufacturer.

Frequency: The system should be inspected semi-annually and maintained as required by the manufacturer.

Comments: The manufacturer typically commits to the first year of maintenance if their strict guidelines are followed for installation, which is highly encouraged to achieve peak performance. It is recommended that an outside agent who is familiar with the product be retained for future maintenance.

G. Outlet Control Devices

Preface: Outlet control devices are utilized for all BMPs on the project, to ensure proper drain down times.

Inspection: Inspection of orifices should be performed after each major rainfall event to ensure that stormwater runoff is able to discharge through the orifice and that it is not clogged.

Maintenance: The orifice cap should be removed and all debris flushed from the pipe prior to reinstalling the orifice cap. Gate Valves should be opened and flushed prior to reinstalling.

Frequency: The orifice control devices should be inspected semi-annually and maintained as needed.

Comments: This project uses gate valves for the grassed underdrained soil filters bio-filters. An orifice cap is utilized for the grassed underdrained soil filter. An orifice in a weir wall is used for the underground water quality storage chambers.

H. Litter

Litter should be removed as a matter of course by workers and as part of the ground's maintenance contract.

IV. PROGRAM ADMINISTRATION

A. General

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities. (Maintenance continues for the lifespan of the development in accordance with this document)

2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.

3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.

4. The administrative body must have the staff to accomplish the inspection and maintenance programs or must have authority to contract for the required services.

5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.

6. A qualified post construction inspector shall be retained by the Owner. His/her duties shall include preparing schedules for the Owner's maintenance, summarizing the results of this maintenance and preparing an annual report on the operation, maintenance, and repair of the stormwater system which must be copied to the City. (The Owner shall be responsible for retaining a separate entity to perform maintenance which cannot be performed by the management of building and property grounds.) This person shall also participate in troubleshooting of the stormwater management system if a problem develops.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. Record Keeping

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

Beyond the initial 5-year time span of the original approval and maintenance plan, the stormwater management system will need to be recertified through the Department every 5 years to confirm that there is conformance with the original permit documents. This process will ensure all systems function properly over time. This document will remain valid throughout any subsequent recertification processes.

C. Contract Services

In some instances, or at specific times, the Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document.

In such cases, the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Summary Checklist
Inspection and Maintenance

Stormwater Management System Maintenance Program Summary Checklist						
Item	**Commentary**	**Frequency**				
		Monthly	**Quarterly**	**Semi-Annual**	**Annual**	**Long Term**
Stormwater Inlets	Stormwater inlets allow flow entry from a surface swale to a piped system. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.		X		X Clearing	
Tributary Drainage System	Inspect to assure that the carrying capacity has not been diminished by debris, sediment or other hydraulic impediments.				X	
Grassed Underdrained Soil Filters	Remove debris from filter area. Inspect health of grass and filter media. Fix eroded areas as soon as possible. Snow storage is prohibited on the filter bed.			X		
Bio-Retention Filters	Remove debris from filter area. Inspect health of vegetation at beginning and end of year. Fix eroded areas as soon as possible. Replace mulch every year. Snow storage is prohibited on filter area.			X		X
Level Lip Spreaders	Inspect berms and ditches after rain events >1" and remove sediment. Check for signs of clogging and flush berm if necessary. Remove woody vegetation.			X		X
Orifice Control Devices	Inspect after major storm events and clear debris from orifice. May require flushing of pipes.			X		
Litter	Litter should be removed daily.					
Focalpoint System	Inspect after major storm events and clear debris. Refer to manufacturer guidelines.			X		X

APPENDIX B

Sample Inspection Logs

CITY HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT
SAMPLE STORMWATER INSPECTION & MAINTENANCE LOG

This log is intended to accompany the Operation and Maintenance Manual for Stormwater Management and Related Facilities. All stormwater BMPs shall be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions of the DEP Stormwater Permit, shall conduct inspections of the facilities as described in the O&M Manual and on this form, and identified deficiencies must be corrected. This log shall be kept on file for a minimum of five (5) years.

A. General Information			
Project Name:		**Inspection Date:**	
Parcel/Lot:		**Current Weather:**	
BMP Owner:		**Date/Amount Last Precip.:**	
Owner Mailing Address:		**Inspection Company:**	
Owner Phone #:		**Inspection Co. Mailing Address:**	
Owner Email:		**Inspector Name:**	
		Inspector Phone #:	
		Inspector Email:	

B. Stormwater Inlets	**Observations**
Frequency: Annually in the spring	
Accumulated sediments from inflow channels and pipes between basins have been removed and legally disposed of	☐ Yes ☐ No ☐ NA
Floating debris and large sediment particles have been removed from inlets.	☐ Yes ☐ No ☐ NA
Stormwater Inlet Notes:	

C. Tributary Drainage System	**Observations**
Frequency: Annually spring or late fall and after heavy rains	
Remove and legally dispose of sediments	☐ Yes ☐ No ☐ NA
Remove floatables and other objects	☐ Yes ☐ No ☐ NA
Check for overgrown vegetation impeding flow	☐ Yes ☐ No ☐ NA
Check pipelines for siltation and clogging	☐ Yes ☐ No ☐ NA
Repair any slumping side slopes or erosion	☐ Yes ☐ No ☐ NA
Replace any riprap on areas where any underlying fabric or underlying gravel is exposed.	☐ Yes ☐ No ☐ NA
Tributary Drainage System Notes:	

D. Grassed underdrained Soil Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Grassed Underdrained Soil Filter Notes:	

D. Bio-Retention Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Replace mulch once per year	☐ Yes ☐ No ☐ NA
Check health of vegetation	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Bio-Retention Filters Notes:	

E. Orifice Control Devices	Observations
Frequency: Semi-Annually	
Check for debris blocking orifice	☐ Yes ☐ No ☐ NA
If applicable, flush underdrain pipe	☐ Yes ☐ No ☐ NA
Orifice Control Devices Notes:	

APPENDIX C

Stormwater Drainage
System Maintenance Agreement

STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT

DC Predevelopment LLC/City of Portland
City of Portland, Maine – Homeless Services Center at 638 Riverside Street

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **City Homeless Services Center ID PL-001682-2021 -** shown on the Overall Site Layout Plan, Grading, & Drainage Plan and Stormwater Management Plan (Exhibits A, B and C) prepared by Gorrill Palmer Consulting Engineers of 707 Sable Oaks Drive, South Portland, Maine dated last revised August 11, 2021 and pursuant to a condition thereof, DC Predevelopment LLC, a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of 100 Commercial Street, Suite 414, Portland, Maine 04101, the owner/operator of the Homeless Services Center facility, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

Maintenance Agreement

That it, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the bio-retention filter systems, Focalpoint® Bio-filtration system, roof line drip edge filter system, grassed underdrained soil filter system, roof drains and related onsite drainage infrastructure, (hereinafter collectively referred to as the "stormwater system"), as shown on the Stormwater Management Plan in Exhibit C and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers (copy attached in Exhibit D) and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner agrees to record a copy of this Agreement in the Cumberland County Registry of Deeds within thirty (30) days of final execution of this Agreement. The Owner further agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Services and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and liened if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax roles on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2021.

_____
(*name of company*)

_____
(*representative of owner, name and title*)

STATE OF MAINE
CUMBERLAND, ss. Date: _____

Personally appeared the above-named _____(*name and title*), and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

_____
Notary Public/Attorney at Law

Print name: _____

Exhibit A: Approved Site Layout Plan
Exhibit B: Approved Grading & Drainage Plan
Exhibit C: Stormwater Management Plan
Exhibit D: Approved Stormwater Inspection and Maintenance Manual

APPENDIX D

Permits for Project

(To be Added at a Subsequent Time)

ATTACHMENT E

AMISTAD
"People Helping People"

August 12, 2021

Amistad's outreach teams interviewed 37 individuals regarding Developers Collaborative's Homeless Services Center proposal, between June 21st and July 16th. All 37 respondents were adults currently experiencing homelessness, and were currently staying either at the Oxford Street Shelter, at a shelter satellite hotel, or at a campsite or other unsheltered arrangement.

Amistad's continuum of outreach programs is staffed by people with lived experience of substance use disorder, mental illness, homelessness, hunger, and other life challenges. The individuals conducting the surveys function as peers and allies with those they support, and their sole objective in conducting the surveys was to amplify the voices of those who are currently unsheltered or currently utilizing Portland's support system for those experiencing homelessness.

Participants were presented with the proposal, and asked to support the process with their thoughts and responses to the following questions:

NOTE: Participants were invited to add comments along with their responses. Specific comments from individual respondents have been recorded but are not included with this summary. The full report, with comments included, will be presented to the HSC design team to aid with their ongoing construction and design efforts.

- Does this design and location seem like it would be a safe place for you to be?
  YES: **28**
  NO: **5**
  UNSURE: **4**

  Does it seem safe for others?
  YES: **26**
  NO: **6**
  UNSURE: **5**

- If you stayed at this shelter, do you think you would hang around all day, or leave during the day and come back at night?
  STAY ALL DAY: **12**
  LEAVE AND RETURN: **9**
  UNSURE or IT WOULD BE DIFFERENT DAY TO DAY: **16**

- There are going to be meals, healthcare services, support groups, housing supports, and one-on-one peer support in the facility. How important are these to you, on a scale of 1 to 5? (1 = not important; 2 = somewhat important; 3 = important, but not very important; 4 = very important; 5 = extremely important)

  Average response:

  Meals: **4.9**

  Healthcare services: **4.7**

  Support groups: **4.2**

  Housing supports: **4.9**

  One-on-one peer support **4.7**

- There are several design features meant to create an environment that feels open, warm, safe, and welcoming, including the concepts below. Do you think these features will help make the place feel open, warm, safe, and welcoming?

˜ Clear sightlines

YES: **30**

NO: **3**

UNSURE: **4**

˜ High ceilings

YES: **31**

NO: **2**

UNSURE: **4**

˜ Natural light

YES: **31**

NO: **0**

UNSURE: **6**

˜ Minimal barriers/Easy-to-navigate space

YES: **35**

NO: **1**

UNSURE: **1**

˜ Efforts to reduce perceived crowdedness within the design

YES: **27**

NO: **3**

UNSURE: **7**

˜ Designated areas that provide a sense of privacy

YES: **35**

NO: **0**

UNSURE: **2**

- Does this building seem too big?

YES: **1**

NO: **33**

UNSURE: **3**

Do the sleeping areas look too big?

YES: **2**

NO: **32**

UNSURE **3**

- Do you think the locker space is adequate?

YES: **18**

NO: **10**

UNSURE: **9**

- Given that the sleeping areas are closed during the day, that means that the indoor space during the day is limited to the Day Room/Cafeteria (the dining tables will be broken down between meals), the entry area, and potentially some intentional space in the hallways. Does this seem like enough space for you, given the number of people that may be in the building at the same time?

YES: **20**

NO: **5**

UNSURE: **12**

- Do you think that transportation during the day will be a problem for you?

YES: **8**

NO: **21**

UNSURE: **8**

- What other features or amenities would help make this HSC positive and successful?

  NOTE: 14 participants responded to this open question. The number (#) following each suggestion refers to the number of respondents who offered the suggestion or notably similar suggestion.

  - √ A clearly designated and covered outdoor smoking area (6)
  - √ Garden beds (4)
  - √ Stipends for live music played by HSC guests (2)
  - √ Stipends for art created for the space by HSC guests (3)
  - √ Onsite syringe exchange (21)
  - √ Flowers and shade trees (5)
  - √ A small library, or having the Book-Mobile come regularly (7)
  - √ Employment counseling/support (5)
  - √ Basketball court (4)
  - √ Hammocks (3)
  - √ Organized activities and outings during the day (3)

- Please share any other considerations or thoughts.

  NOTE: 8 participants shared concluding thoughts. The number (#) following each thought refers to the number of respondents who offered the thought or notably similar thought.

- Staff should be compassionate and trained to work effectively with people who have been through a lot. (7)
- Having to go through security makes it feel like jail. (1)
- If they could build a full-size storage facility on the property that would help so many of us out. (1)
- I'm someone who probably won't ever sleep at a shelter, no matter how nice it is. If they had a safe, designated space for people to sleep outdoors I would probably do it, because I'm sick of getting moved around all the time. (1)
- Good food is really important. I hope they won't try to save on the cost of food, because when people eat like animals they act like animals. (1)

Summary of First Listening Session, 8/9/21

On August 9th, Amistad hosted a listening session at our Peer Support and Recovery Center, with the intention of providing an opportunity for "peers" to engage in direct communication with the HSC development and design team, and to meaningfully impact the developing HSC concept and its' potential features. Peers, in this case, refers to those who have experienced homelessness in Portland. The group in attendance were individuals whose experiences of homelessness have been chronic and re-occurring. The participating peers shared perspectives that drew on their experiences staying at the Oxford Street Shelter as well as periods of being unsheltered while experiencing homelessness. The group met for three hours with Kevin Bunker from the Developers Collaborative and his design team, and provided a range of opinions and suggestions. During the course of the listening session, attending peers shared the following:

- A desire for multiple outdoor seating arrangements which would provide shelter from the elements and include a possible winter heating source. The idea of having separate outdoor shelters would provide peers with social choice and space for different types of relating. Moreover, outdoor seating would need to be accommodating to daytime resting. Peers also noted the importance of table surfaces throughout the outdoor space.

- Peers brought up the following outdoor amenities as being important:

  - access to drinking water and handwashing stations

- charging stations for cellphones
- an alert system which would be installed on the walkway to the facility for peers arriving to the shelter after dark
- outdoor clocks
- permanent bike locks
- secure outdoor storage

- Peers discussed the pros and cons of a fencing system. Overall, it was felt that NOT having a fencing system would increase the safety of guests, as a fence would limit access to anyone experiencing a medical emergency.

- Peers proposed a memorial space for community members to reflect on personal and collective loss throughout our community. It felt important that the memorial space be in a non-central location as to provide guests with the choice to encounter it or not.

- Peers echoed the designer's idea of a chalk-wall as a space for community expression.

- The full notes from the session are attached as Exhibit A.

Exhibit A
Homeless Services Center Focus Group Meeting – Site Design
8/9/2021
Attendees: 7 individuals currently or recently experiencing homelessness; Amistad peer support facilitators
Attendees from Design Team: Nick Aceto, Grace McNeill, Lisa Whited, and Kevin Bunker

- People who choose to stay outside generally don't want to be outside—they want to not be in the shelter system for a variety of reasons (CTO)
- Simple basic needs—bathrooms and water
- Space for trans and nonbinary people?
- Comfort is a major need (warm, comfortable spaces make a huge difference when you're constantly physically and mentally exhausted)
    - There is a certain comfort in a little leisure
- Stress and addiction makes you behave differently
- More outdoor and comfortable covered spaces
- Perhaps include a less harsh boundary (than a fence) to indicate the edge of property along the north/east side
- Outdoor phone charging and electrical outlets
- Plenty of trash cans
- Access to sharps disposal?
- Include space for shopping cart or other type of cart storage amongst bike storage?
- Need larger storage spaces for backpacks and other belongings
- Consider moveable or fixed furniture? Or both?
- Plenty of covered spaces—mostly for smoking, but also spaces for people to spread out a little
- Will there be an entrance area or separate boundary/area on the property that isn't managed by the city? Likely no.
- Need temporary cover for multiple days of foul weather
- Make sure the site is accessible for those with mobility issues
- Need proper lighting outdoors and indoors—can affect mood and safety of space
- Outdoor showers and bathrooms? Probably unnecessary.
- Raised garden beds had a good reception
- Access to drinking water outside—water bottle filling station?
- Need immobile cigarette butt disposal
- Want to have more activities that don't require staff interaction
- More small covered seating areas like gazebos instead of stage?
- More chalkboard spaces or graffiti tagging wall?
- Some kind of outdoor heating in the seating areas would be good
- Purposeful, built-in spaces that are always there and not controlled by staff will add a sense of autonomy (don't need to wait for staff to put chairs out)
- Want lots of spaces to be able to plug phones in

- Simple digital clocks around outside (to help people keep track of time to make it to relevant appointments)
- Consider including a separate memorial space for those lost in the community (must be a space that is optional to go to—don't want to make people uncomfortable or bring up trauma unnecessarily)
- Might need more than 5 parking spaces for guests— those with cars don't want to lose them and will need somewhere they can leave them safely. Should be able to add parking in future if this proves to be the case.
- Outside tv space? Or projector wall?
- Vending machines?
- Access to strong wifi outside is a must

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

I, Celina Daniell, of Gorrill Palmer, hereby certify that a Neighborhood Meeting was held on Monday, July 26, 2020 at 5:30 P.M. via Zoom Videoconference for the proposed Homeless Service Center project located at 638/654 Riverside Street in Portland, ME.

I also certify that on July 12, 2021 (which is at least ten (10) days prior to the Neighborhood Meeting) invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1,000 feet of a proposed industrial subdivision or industrial zone change.

2. Residents on the "interested parties" list.

Signed,

Celina M. Daniell, Sr. Technical Advisor

August 2, 2021
Date

Attached to this certification are:

1. Copy of the Invitation Sent
2. Meeting Minutes

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GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

NEIGHBORHOOD MEETING MINUTES

Project: **Portland Homeless Service Center – 638/654 Riverside Street**

Date: **July 26, 2021 – 5:30 PM to 6:45 PM**

Location: **Zoom Video Conference**

Attendees: **Steve Bushey & Celina Daniell – Gorrill Palmer**
Kevin Bunker – DC Predevelopment (Applicant)
Steve Weatherhead – WSA Architect
Aaron Fleurant – City of Portland (Applicant)
Tina Pettingill – City of Portland (Applicant)
Kriston Dow – City of Portland (Applicant)
Brian Townsend – Amistad
Aaron Geyer, City of Portland
Members of Public (see list below)

In accordance with the City of Portland Planning Board Requirements, a Neighborhood Meeting was held to discuss the proposed development of a 51,690 SF Homeless Service Center at 638/654 Riverside Street in Portland, ME. The meeting was held on Monday, July 26, 2021 at 5:30 PM via Zoom Conferencing. Steve Bushey, PE and Celina Daniell, representatives from Gorrill Palmer and Kevin Bunker, Applicant were available on via Zoom from 5:20 PM–6:30 PM. with additional Team Members which are noted above

Kevin Bunker started the meeting and gave a brief overview to discuss the major Site and operational elements of the project which included the Major Site Plan and Conditional Applications as well as the neighborhood meeting setup process. After a 5 minute discussion from Kevin, he introduced the project team.

Steve Bushey provided informational slides and gave an overview of the history of the site as well as the proposed site development including project location, zoning requirements, abutting site development. Steve described his role as managing the site aspects of the project which includes stormwater management, utilities, public safety, and permitting. After a 6 minute discussion, Steve Weatherhead from Winton Scott described the architecture, programming, and interior look of the proposed building. This included a discussion on the operations and flow of development pointing out the amenities which will be included on site. Followed by Steve, Nick Aceto, ALA introduced himself and described the landscaping features of the development including the goals of the landscape plan. Nick described some of the features that would be provided on site which includes plantings, courtyards, meditation spaces, garden beds, and designing a welcoming space for guests.

Questions from Public

Sarah Michniewicz had a few questions which included: Why only 35 cafeteria spaces; where are the meals coming from; is there storage for clients; and will there be a sleeping pavilion area and is that something being entertained.

- Steve W. clarified the questions that on the site plan presented there will be 212 seats in the cafeteria.
- The City runs central kitchen that services Portland that they may utilize for meal service - TBD. Also, the facility will have a food prep area.
- There is storage in different areas including large locker room, small spaces in the dormitory area, as well as commitment to do bike storage.
- Kevin B. responded that the sleeping pavilion was an item that was entertained but due to safety reasons there will be no outdoor sleeping pavilion.

Sean Duffy – where are the shelter guests supposed to go or do during the day as he was concerned about the Riverside Street entrance seems dangerous as well as access to paths, etc. Concerned that guests would be just roaming around. He also voiced concerned that Riverside Street is very dangerous and wanted to know if additional bus routes will be provided.

- Steve B. responded by describing the access to the Portland Trails systems that could be utilized by shelter guests. A sidewalk will be completed from the project entrance going north towards Forest Avenue on the site side to an existing sidewalk which people can have access to the Metro, residential housing, and grocery. Kevin B. further clarified that the City of Portland has requested that we provide a guideline similar to TDM plan which addresses access to the services by Metro, etc.
- Kristin Dow clarified the intention and design of this new facility will be to provide services all on site that currently is being provided all over the City. Such as food, medical needs, housing, outdoor activities as well as assistance to anyone who needs it.
- Nick A also described that the proposed site is nearly 7 acres and that the programming has included amenities for the guests to have activities within a safe and secure area. There is about an acre of different amenities being proposed for guests.
- Kevin indicated currently there are no proposed Metro routes at this time.

Zach Thomas – Seacoast Scaffold (abutter) indicated that his company has had issues in the past with theft from existing homeless encampments by the river. How are the surrounding business owner going to be protected by homeless and is the City proposing a safe drug use area at the Shelter.

- Kristin Dow indicated that safe consumption sites are not federally allowed. So that will not be provided. She also indicated that there is a Good Neighbor Policy and a 24 hour hotline for abutting residents if there are any issues that arise.
- Kevin B. addressed the neighborhood impacts question. The proposed management plan will include robust security measures, cameras, and a check in and checkout. The City currently is using this type of programming at the Oxford Street facility.

- Brian Townsend stressed that that intent is to try to engage clients in the services that will be provided. He also indicated that similar to the Oxford Street location that 30 minute perimeter checks will be done by shelter staff and the City's security staff. Provide all services to become self sufficient and inviting partners to the facility.
- Sarah Fleurant introduced herself as the Shelter Director for the Oxford Street location. Her Team will be engaging with the neighborhood to see what they can do to have a positive impact on the community.

Sarah Michniewicz an abutting Oxford Street neighbor wanted to testify that the shelter staff and hotline has been very beneficial and she has only one instance of theft which was not from a shelter guest. She also inquired if someone needed emergent care how would this be taken care of so there isn't people hanging around the facility after hours?

Sarah F. indicated that the Management Plan will be set up for people who needs onsite care/ shelter and will not promote just hanging out. She indicated that they will still continue the Emergent Care program at 39 Forest Avenue which is a 7 day a weekday/time evening hours. If someone comes and needs emergent care that cannot be handled through the Forest Avenue location then a shuttle is being provided to the Riverside Street location. If there is an emergency situation and a person comes the Riverside Street location, they will accept them at the shelter.

Kevin McIntyre wanted to see the site plan and additional description was given.

Mallory – How many SF of the building and Kevin B. indicated 51,690 SF.

Steve B. discussed the ongoing workshop and planning process and what are the next steps.

Kevin thanked everyone and adjourned the meeting at 6:30 p.m.

Attendees: List Above
Anne Pringle
Bob Dunfey
Dan Skinner
Kathy Alves
Trevor Nugent
Zack Thomas
Kevin McIntyre
Sarah Michniewcz
Sean Duffy
Ryan Haskell
T Stackhouse
207.725.0224
Lisa Whited

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

July 12, 2021

Dear Neighbor:

Please join us for a Neighborhood Meeting via Zoom to discuss the proposed development of a 51,690+ SF Homeless Service Center at 654 Riverside Street in Portland, ME. The proposed development will include temporary residential use with kitchen, dining area, staff offices, and a health clinic as well as a parking area, outdoor recreational space and courtyard areas. Pursuant to the City of Portland's COVID guidelines, this meeting is to be held by video conference.

Meeting Location: Join Zoom Meeting
https://us02web.zoom.us/j/89802409766
Meeting ID: 898 0240 9766
Dial by your location
+1 312 626 6799 US (Chicago)
+1 929 205 6099 US (New York)

Meeting Date: **July 26, 2021**

Meeting Time: **5:30 PM – 6:30 PM**

The City Code requires that property owners within 500 feet (except notices must be sent to property owners within 1,000 feet for industrial zoning map amendments and industrial subdivisions) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. We will take attendance and submit a sign-in sheet to the Planning Board. The meeting will last no more than 45-60 minutes.

If you have any questions, please feel free to contact Celina Daniell 207.772.2515 x294.

Sincerely,

GORRILL PALMER

Celina Daniell
Sr. Permitting
cdaniell@gorrillpalmer.com

Note: Under Section 14-32(C) and 14-525 of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within three weeks of submitting a preliminary application or two weeks of submitting a final site plan application, if a preliminary plan was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street, Portland, ME 04101.

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\G Abutters\3824.01_Homeless Facility Notice_07.12.2021.docx

JN	COMPANY	FIRST NAME
3824.01	73 RAINMAKER DRIVE LLC	
3824.01	A HAUSMANN ASSOCIATES INC	
3824.01	ADDISON CAPITAL LLC	
3824.01	AIM RIVERSIDE LLC	
3824.01		MIKE
3824.01		RICKY
3824.01		ERIC
3824.01	BERZINIS REALTY LIMITED LIABILITY COMPANY	
3824.01	BRENNER BROTHERS LLC	
3824.01	CROSSWAYS PARK LLC	
3824.01	DAC LLC	
3824.01	ELLEN LLC	
3824.01		MARK
3824.01		JOHN
3824.01		CLARENCE
3824.01	H FINKELMAN INC	
3824.01	HAKKEN PROPERTIES LLC	
3824.01		BRIAN & SANDRA
3824.01	INTENTIONALLY LEFT BLANK LLC	
3824.01	KELTON REAL ESTATE HOLDINGS LLC	
3824.01	L & L VENTURES INC	
3824.01		MARK
3824.01	LPS PROPERTIES LLC	
3824.01	N & S PROPERTIES LLC	
3824.01	NANGARHAR LLC	
3824.01	NERCC HEADQUARTERS LLC	
3824.01	NORTHERN UTILITIES INC	
3824.01	PORTLAND HOUSING AUTHORITY	
3824.01	PORTLAND WATER DISTRICT	
3824.01	RAS PROPERTIES LLC	
3824.01	RNJ ENTERPRISES LLC	
3824.01	SCA SERVICES OF MAINE INC	
3824.01	SEA SCAFF REALTY OF MAINE LLC	
3824.01	SIX G'S COED LLC	
3824.01		DANIEL & YVONNE
3824.01	SUBURBAN PROPANE LP	
3824.01	TERRACE POND LLC	
3824.01	WASTE MANAGEMENT OF MAINE INC	
3824.01		ROBERT
3824.01		PAYAM
3824.01		ANTHONY
3824.01		BARBARA
3824.01		DAVID

3824.01		DEB
3824.01		DEVON
3824.01	DISTRICT 3	EDWARD
3824.01		JANICE
3824.01		JENNIFER
3824.01	KAPLAN THOMPSON ARCHITECTS	JESSE
3824.01		LYNN
3824.01		MARY
3824.01		NANCY
3824.01		PAM
3824.01		PAUL
3824.01		PEGGY
3824.01		PHILIP
3824.01		PRISCILLA
3824.01	WASTE MANAGEMENT OF MAINE	REBECCA
3824.01	DISTRICT 37	REP GLENN
3824.01		ROBERT

LAST NAME	ADDRESS	CITY	STATE	ZIP
	539 AUBURN ST	PORTLAND	ME	04103
	380 WARREN AVE	PORTLAND	ME	04103
	2 SHADY LN	FALMOUTH	ME	04105
	340 FORE ST	PORTLAND	ME	04101
ALT	36 RAINMAKER DR	PORTLAND	ME	04103
AMES	589 RIVERSIDE ST	PORTLAND	ME	04103
ANDERSON	707 RIVERSIDE ST	PORTLAND	ME	04103
	483 ROOSEVELT TRAIL	WINDHAM	ME	04062
	69 FOUR WINDS RD	PORTLAND	ME	04102
	100 MIDDLE ST	PORTLAND	ME	04101
	31 WALDRON WAY	PORTLAND	ME	04103
	100 COMMERCIAL ST BOX 105	PORTLAND	ME	04101
ERLICH	13 HOLMAN RD	MILLBURY	MA	01527
FAY	36 WALDRON WAY	PORTLAND	ME	04103
FENTON	705 RIVERSIDE ST	PORTLAND	ME	04103
	PO BOX 847	CARLSBAD	CA	92018
	PO BOX 1951	WINDHAM	ME	04062
INGRAHAM	109 ELMWOOD AVE	WESTBROOK	ME	04092
	927 ROUTE 1 BYPASS	PORTSMOUTH	NH	03801
	68 WALDRON WAY	PORTLAND	ME	04103
	PO BOX 6036	FALMOUTH	ME	04105
LIBBY	639 RIVERSIDE ST	PORTLAND	ME	04102
	525 RIVERSIDE ST	PORTLAND	ME	04103
	PO BOX 663	LIMINGTON	ME	04049
	PO BOX 17661	PORTLAND	ME	04112
	750 DORCHESTER AVE	DORCHESTER	MA	02125
	6 LIBERTY LN WEST	HAMPTON	NH	03842
	14 BAXTER BLVD	PORTLAND	ME	04101
	225 DOUGLASS ST	PORTLAND	ME	04102
	110 NEWELL RD	YARMOUTH	ME	04096
	1407 RIVERSIDE ST	PORTLAND	ME	04103
	2000 FOREST AVE	PORTLAND	ME	04103
	PO BOX 1982	PORTLAND	ME	04104
	256 PARK RD	WESTBROOK	ME	04092
SKINNER	625 RIVERSIDE ST	PORTLAND	ME	04103
	PO BOX 206	WHIPPANY	NJ	07981
	723 RIVERSIDE ST OFFICE	PORTLAND	ME	04103
	PO BOX 1450	CHICAGO	IL	60690
WORCESTER	737 RIVERSIDE ST	PORTLAND	ME	04103
YAZDANPANAH	43 CHURCHILL RD	SOUTH PORTLAND	ME	04106
DONOVAN	27 RIVERVIEW STREET	PORTLAND	ME	04102
WOOD	125 EMERY STREET	PORTLAND	ME	04102
NOWLIN	215 OXFORD STREET	PORTLAND	ME	04102

KEENAN	28 DOROTHY STREET	PORTLAND	ME	04103
PLATTE	26 NORTH STREET, 33	PORTLAND	ME	04101
SUSLOVIC	46 KENWOOD STREET	PORTLAND	ME	04103
CARPENTER	9 W. COMMONWEALTH DRIVE	PORTLAND	ME	04103
MUNSON	389 CONGRESS STREET, 4TH FLOOR	PORTLAND	ME	04101
THOMPSON	100 EXCHANGE STREET	PORTLAND	ME	04103
CLARKSON	145 MARLBOROUGH ROAD	PORTLAND	ME	04103
GRIFFITY	6 E. PROM, UNIT 2	PORTLAND	ME	04103
BARTLETT	PO BOX 7965	PORTLAND	ME	04112
BURNSIDE	64 LESTER DRIVE	PORTLAND	ME	04103
DUBOIS	1915 CONGRESS STREET	PORTLAND	ME	04102
MORIN	66 FARNHAM STREET	PORTLAND	ME	04101
HAUGHEY	1660 SOLDIERS FIELD ROAD	BOSTON	MA	02135
LAVALLEE	190 US ROUTE 1, UNIT 2	FALMOUTH	ME	04105
HALLA	2000 FOREST AVENUE	PORTLAND	ME	04103
CUMMINGS	24 NEVENS STREET	PORTLAND	ME	04103
HAINS	250 HOLM AVENUE	PORTLAND	ME	04102-1208

City of Portland Homeless Services Center

Management Plan

I. Overview:

Description:

The City of Portland Homeless Services Center at 654 Riverside Street will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18.

This will continue the city's mission of providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. In partnership with area service providers, we provide services to our consumers with an emphasis on compassion, dignity, respect and the highest standard professional demeanor toward this mission.

In the calendar year 2019 (last full year pre-Covid) the City served nearly 1,700 unduplicated individuals providing over 71,000 bed nights.

The Oxford Street Shelter currently serves a diverse population and we intend to continue that at our Homeless Services Center. We serve homeless women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, as well as those struggling with substance use and mental health. The Homeless Services Center has the capacity to serve an entire community's needs, complementing the smaller specialized shelters in the city and enhancing their capacity through a robust referral process maximizing resources across our system. This provides the highest level of service by those most equipped to help. This Homeless Services Center is designed to be compatible with the latest thinking of service provision, as the hub in the hub and spoke model as detailed in the work of the Statewide Homeless Council.

History of Oxford Street Shelter:

The Oxford Street Shelter opened in December of 1989. At 50 beds, it was the largest adult shelter in the state of Maine. Beds increased to 62 four years later and again to 80 beds in 1996 after leasing the adjacent building due to an increase in homelessness. The City and shelter staff continued to step up and meet community needs as they increased, seeing a rise in census in 1998 and 1999 until reaching 154 beds in 2000. Need continued to increase and community overflows were opened at the Salvation Army and the Preble Street Resource Center. Realizing the limitations of our space on an operational level (not having enough beds, difficulties being spread over multiple floors, transitioning from dorm to day use, etc.) and at the client experience level (not having the dignity of sleeping in a bed, needing to move throughout the day to meet basic needs of food and shelter, etc.), City

leadership started exploring the best way to improve our services and the lives of the people we serve. The process of this pursuit is outlined in **Exhibit 1**.

Impacts of COVID:

Prior to the COVID-19 Pandemic, our current facility at 203 Oxford Street was able to accommodate 154 individuals for overnight shelter. We utilized the Preble Street Resource Center to provide overnight accommodations for additional overflow space increasing capacity by 75 male beds. Our client's additionally utilized Preble Street's congregate soup kitchen for meal services.

At the onset of the pandemic, Oxford Street Shelter consulted with the CDC and reduced its maximum capacity to 75 beds based on their recommendations. Due to social distancing requirements causing the closure of our overflow space and meal facility, we opened a second 24 hour, socially distanced shelter. In addition, our staff began picking up meals three times a day from the Preble Street Soup kitchen and delivering them to our two facilities.

The pandemic has had a large influence on the design of the Homeless Services Center. The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.The footprint of the center has increased to allow for appropriate social distancing in areas where guests will be frequenting, including both the dining and sleeping areas. CDC space recommendations equate to 113 s.f. of floor area be allocated per person in sleeping areas. There is a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. There are 7' to 8' distances typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to afford some privacy and to provide a physical barrier between guests to further protect against COVID transmission. The CDC recommendations also include maintaining 6' distances between guests in eating areas. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

The CDC also provides guidance for HVAC systems to minimize transmission that include: maximization of outside air intake; use of HEPA level filters that are changed out at regular intervals; supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems; humidity control systems. Design staff will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

During the pandemic, our clients were grateful. While many of our community partners understandably closed programs or reduced hours, the City shelter remained open. Many of the spaces individuals had utilized for years were no longer available to them. At Oxford Street, many clients slept, connected with staff for their daily needs and ate their meals in metal folding chairs all in the same room. We feel strongly that clients deserve a better and more dignified space. We have seen that a more dignified space allows clients to feel more self-worth and motivation towards moving forward from temporary emergency shelter.

Lessons Learned:

Running two 24 hour facilities during the pandemic created challenges but also presented learning opportunities. Staff had been envisioning our new Homeless Services Center with a more dignified approach to shelter for some time, well before we began operating a temporary shelter at the Portland Expo.

At the time that we began utilizing the Expo, staff were amazed in the ways in which the open space could be used to create a more all-inclusive shelter: the layout of the Expo building with open site lines, the ability for clients to have more privacy and not need to line up outside, the room to have both day and night spaces set up without needing to be broken down for cleaning (thus shuffling clients around throughout the day), the capacity for providers to meet with their clients on-site, and the space for clients to store their belongings. This aligned with many of our goals for the Homeless Services Center.

Vision of a Homeless Services Center:

It is the goal of the City of Portland to open a new state-of-the-art, one-story, adult emergency shelter to replace the Oxford Street Shelter. The new shelter will be open 24-hours a day, 7-days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 2** for a more comprehensive list of services.

The City of Portland's shelter clients and valued staff deserve to live and work in a respectful and safe environment. We will no longer allow some of our most vulnerable community members to live in inadequate conditions and in locations where they are easily abused, taken advantage of, and judged for their perceived shortcomings.

The new location will be a one story building easily accessible to all. Our clients will be able to access the space 24-hours a day and will not need to leave with their belongings. They will have a large day space with an area for meal services including a kitchen where staff will serve meals. We will have indoor storage lockers, bathrooms, laundry services, and clients will be assigned to beds rather than mats on the floor. Sleeping areas will have beds where each individual will have a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The bed layout will provide increased ability to socially distance and will provide an increased sense of privacy, as beds will be set in quads.

Additionally, our new location will have a full service federally qualified health clinic, offering medical, mental health, substance use treatment, and dental services on-site. We will have small group rooms and offices for peer support and community providers to access, greatly improving the service delivery model and community collaboration.

Importantly, the design of the new facility has been informed not only by the multi-year planning process described elsewhere in this document, but by actual potential users of the facility. As part of the planning and design process, Amistad has conducted current client surveys regarding aspects of the new facility. Additionally, Amistad facilitated a design listening session with unhoused peer groups, who had a chance to offer direct feedback to the developer and the design team in attendance. Further workshops will be held on detailed design (during the architectural design development phase) and on operations (during the construction phase). Amistad's work has been submitted under separate cover as part of the Planning Board application.

Housing Services:

The City is dedicated to providing housing services to all who access our facility. While the pandemic made housing access difficult, our established relationships with landlords continued to afford our clients options to secure housing. In the year of July 1, 2020 to July 1, 2021 the housing team successfully placed 103 individuals into housing. The housing team's extraordinary work is recognized by experts in the field; in 2017, the National Alliance to End Homelessness (NAEH) honored the Oxford Street Shelter for our work on the Long Term Stayers Initiative with their Pioneers in Innovation and Excellence award, highlighting that in "the program's first two years, 125 people – representing a combined 150 years of shelter stays – have been successfully housed."[1]

The Long Term Stayers (LTS) initiative started in April of 2015 when the City collaborated with local housing services providers to target their efforts with a by-name list of the most vulnerable and difficult to house individuals staying at the Oxford Street Shelter. At the time, the shelter had 44% of the state's long term stayers[2]. In Portland, long term stayers are defined as people staying over 180 cumulative days in shelters or outdoors within a 365-day period. This definition was created because HUD's Chronic Homelessness definition did not capture single adults who tend to bounce from shelter to shelter whose lengths of stay in any one shelter do not meet the HUD definition of chronically homeless. From April 2015 through June 2021, this initiative targeted 580 people identified as long term stayers and housed 345 of them. According to their HMIS data, this group collectively had more than 650 years of homelessness, and more than 200,000 total bed nights. There has been a 91.03% success rate in scattered site apartments due to the combination of rental subsidies and support services.

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[1] NAEH. (n.d.). *National Alliance to End Homelessness Honors Pioneers inInnovation and Excellence at Annual Awards Ceremony.* End Homelessness. https://endhomelessness.org/wp-content/uploads/2016/10/Awards-Ceremoney-for-distro-101017.pdf

[2] Community Housing of Maine. (2021, July). *Maine's Long Term Stayers Initiative History & Accomplishments* [PowerPoint presentation].

On-Site Services Provided by Community Partners:

An integral part of the design for the Homeless Services Center is a facility that allows for providers to be on-site with our clients. Throughout the planning process we have received great support and commitments from many of our community partners seeking to offer services to clients at the new Homeless Services Center location. (Please see **Exhibit 3** for a list of community partners.) Below are a selection of responses we received from providers describing their plans for outreach and service delivery at the new facility in no particular order:

Greater Portland Health

Through a harm reduction model and through trauma informed approach, we propose to provide primary medical care, behavioral health services, substance use services, infectious disease services, dental services, and outreach support.]The clinic will include two medical providers and two medical assistants along with a dental team consisting of a dentist, hygienist and two dental assistants. Additional staff will include a social worker, a psychiatric nurse practitioner, patient service representative, community health worker and a financial assistance counselor.

Preble Street

Preble Street is very excited about partnering with the City of Portland to support the centralized service model for the Homeless Services Center. Preble Street offers a variety of services that specifically target individuals experiencing homelessness, so having a robust involvement with the Homeless Services Center, the largest emergency shelter in Maine, would be a necessary and important component of their work.

Preble Street would actively seek to have an outreach presence at the new Homeless Services Center through various programs. Preble Street's Veteran Housing Services currently tracks all veterans that enter the emergency shelter system in Maine and would work collaboratively with HSC staff to identify and link homeless veterans with intensive housing-focused case management. Similarly, the Anti-trafficking Services (ATS) offered by Preble Street would serve as a valuable resource for any victims of human trafficking who present at the HSC. In conjunction with providing intensive outreach and case management to these individuals, the ATS team would be available to coordinate services and referrals with HSC staff and able to provide trainings as requested to increase staff's awareness of human trafficking.

Additionally, staff from Preble Street's Rapid-Rehousing Services (RRH) would outreach and engage eligible individuals at the HSC and coordinate services with HSC staff. In its first year of operation, the RRH team enrolled many individuals who regularly stayed at the Oxford Street Shelter and secured permanent housing for a high percentage of these individuals. Given these precedents, it is likely that the HSC would be an important referral source for Preble Street's ongoing RRH work. Along these lines, the Street Outreach Collaborative (SOC), Preble Street's mobile street outreach team which targets individuals experiencing unsheltered homelessness, would work specifically with the unsheltered

community to problem-solve the barriers that may be preventing them from accessing the HSC and other emergency shelters. The SOC would also be able to help HSC staff support clients in maintaining their emergency shelter placement. In its first year of operation, SOC connected 158 individuals to emergency shelters in Portland.

In addition to these service specific outreach efforts, Preble Street Homeless Voices for Justice (HVJ) would also seek to have a presence at the HSC. HVJ currently does regular outreach at Oxford Street Shelter, which they would plan to continue at the new Homeless Services Center. This outreach is done to inform clients of campaigns, to share what HVJ is working on, to hear from clients about what needs are arising, and to build connections between HVJ Advocates and current shelter clients. Additionally, HVJ sees potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, HVJ also hopes to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in advocacy work.

As demonstrated, the clients at the HSC would be an important focus of outreach from a wide variety of Preble Street programs. In addition to this considerable outreach presence, Preble Street envisions a continuation of the close collaboration between the HSC and their emergency shelters (Joe Kreisler Teen Shelter, Florence House Women's Shelter, and the Wellness Shelter) to ensure that youth, vulnerable women, members of the unsheltered community, and other at-risk individuals are triaged and linked to other shelters, as necessary. This would occur because of on-the-ground coordination between HSC and Preble Street staff to help streamline emergency shelter bed management across both organizations and ensure that individual clients are matched to the most appropriate emergency shelter resource available. The Wellness Shelter, in particular, will be an integral part of the City's shelter work and recently an MOU was created between the City of Portland and Preble Street to formalize this: "The Preble Street Wellness Shelter works closely with the City of Portland Oxford Street Shelter to best serve individuals experiencing homelessness and plan effective overflow options. As a result of this partnership, including coordinated assessments and referrals to the Preble Street Wellness Shelter, the number of persons within the City who are unsheltered, unsafe, and become a concern for emergency services is greatly reduced."

Furthermore, Preble Street commits to continued collaboration with HSC staff and clients through Preble Street case management and advocacy programming including the H.O.U.S.E. (Homeless Opioid Users Service and Engagement) program, the Long-Term Stayers meetings, Maine Homeless Legal Aid Project, and needed clinical assessments provided by Preble Street LCSWs.

Homeless Voices for Justice

Homeless Voices for Justice's engagement with the new Homeless Services Center will mirror our current engagement at Oxford Street Shelter. Homeless Voices for Justice currently does regular outreach at Oxford Street Shelter, which we plan to continue at the

new Homeless Services Center. This outreach is done to inform clients of our campaigns, to share what HVJ is working on, to hear from folks about what needs are arising, and to build connections between the Homeless Voices for Justice Program and Advocates and current shelter clients. Additionally, we see potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, we hope to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in our advocacy work.

Spurwink

Spurwink is excited to partner with the City of Portland's new Homeless Services Center (HSC). Currently Spurwink provides Behavioral Health Home, Opioid Health Home, and Assertive Community Treatment services to individuals staying at the Oxford Street Shelter. These services provide an integrated, multi-disciplinary team-based approach to care coordination, treatment, and support. Spurwink will continue to offer these services to clients at the new HSC.

During the pandemic, Spurwink offered emergency medication assisted treatment for opioid use disorder for quarantined clients, committed staff to daily outreach in Deering Oaks and at City Hall during the summer of 2020, and recently committed staff to outreach related to TB testing. We hope to continue these types of innovative partnerships to help meet community needs.

Finally, the City is contracting with Spurwink to hire two Community Engagement Specialists. These staff will be dedicated to the new 22 Park Street housing first collaborative, but will also assist as needed with city-wide outreach and engagement efforts. Spurwink expects these staff members will have a heavy presence at the new HSC.

The HSC offers a terrific opportunity to streamline services for both clients and community providers. Spurwink is excited to support this initiative.

Through These Doors

Through These Doors is Cumberland County's domestic violence resource center, serving victims and survivors of abuse and anyone affected by abuse and other related issues such as stalking, dating abuse, elder abuse, and both human trafficking and sexual abuse in the context of intimate partner relationships. TTD has an important role in working within the City of Portland's array of services to homeless individuals. We know that domestic violence is a leading cause of homelessness, especially for women, and that homeless people are vulnerable to further abuse when they lack housing security. TTD's advocates are trained to provide holistic safety planning, advocacy, support, and resource sharing in the context of the homeless system.

In the City's planned homeless center, we envision embedding a full-time advocate (as funding permits) on-site to be easily accessible. TTD has a wide variety of other services including legal and court advocacy, assistance with legal practices such as protection from abuse orders, navigating the justice system, and engaging and working within the CPS system. Our advocate on-site within the City's planned homeless center will be a link to all other TTD services to provide seamless, consistent services, all free of charge to homeless individuals.

TTD's on-site advocate will also be a resource to City staff as they support homeless individuals dealing with current safety issues and/or long term impacts of violence. TTD advocates work within other systems in Cumberland County (including CPS, law enforcement, and the schools) and we are told that employees within each system appreciate having on-site consultation available.

Amistad

Amistad's contributions to the HSC's model of supports and services will reflect the unique, peer-to-peer role that the agency plays in the community. Amistad's front-line Peer Support Specialists are not social workers or case managers; they are people with life experiences that are relatable to those who may present as guests at the HSC. Peer Support Specialists engage with guests/clients in a manner that is relationship-based, that acknowledges the expertise of each individual within their own life experience, and that allows for each person in the relationship to respectfully challenge the other to recognize their personal opportunities for growth and change.

At the HSC, Amistad's certified Peer Support Specialists will be able to contribute by providing:

- One-to-one peer support with HSC guests. The support offered is relationship-based, goal-focused, and private, and will be provided on-site and by phone or video conference.
- Facilitation of peer support-based groups. Trained facilitators will provide support groups, with a curriculum that will rotate and evolve based on the current needs and interests of the HSC guests.
- Support for the establishment of the HSC's Utilizers Union, and services, in an ombudsman-like role, for HSC management and guests. Identified Peer Support Specialists will hold roles that support the establishment and ongoing functions of a Utilizer's Union at the HSC, and will provide ombudsman-like support between HSC guests and HSC management and staff regarding complaints, areas of tension, and prospective changes to HSC policies and practices.

The Opportunity Alliance

The Opportunity Alliance (TOA) is a dynamic, results-focused Community Action Agency for Cumberland County, which was founded in 1965. TOA provides 50 integrated community based and clinical programs serving more than 20,000 people annually throughout the state of Maine. With over 50 years of experience, TOA draws from a comprehensive set of

programs which address issues such as mental health, substance use, homelessness, lack of basic needs, and access to community supports. Through an extensive array of services, TOA provides opportunities for individuals to stabilize fragile situations and then works with them to achieve self-sufficiency. TOA has strong working relationships with system wide partners and providers including The City of Portland.

TOA's Project for Assistance in Transition of Homelessness (PATH) program is the beginning of services for unsheltered individuals with serious mental health and struggling with substance use, in our state's continuum of care. The PATH team's outreach and engagement component allows these individuals to build trust with a provider. Currently, the PATH team works closely with the Oxford Street Shelter to support individuals to access the shelter.

PATH will continue our collaboration with the new center, by continuing to provide outreach case management services in the community and encourage and support individuals who are interested in accessing the center.

The new center will allow our collaboration to strengthen, as it provides meeting spaces for PATH to work alongside center staff to initiate and complete applications for long term housing and other mainstream services.

Milestone

I am writing to share Milestone Recovery's plan to support the operations of the City of Portland's Homeless Services Center by offering on-site support services. Those services will include the regular presence of our Homeless Outreach and Mobile Engagement (HOME) Team both on the campus and to assist in providing transportation. In addition to the HOME Team supporting the Service Center, we are willing and able to offer our expertise around supporting people with substance use disorder (SUD) through sharing of resources and providing training.

We will continue engaging in coordinated and collaborative support for people that are unhoused and experiencing SUD. Milestone Recovery will also be able to offer group support and will explore offering treatment within the Service Center or engaging in facilitating access and transportation to community-based SUD treatment programming.Through collaboration with other community providers,we seek to support the needs of people who are unhoused through a holistic approach.

Shalom House

Shalom House will:

- Work with the Identified Individuals to provide assistance with housing, housing subsidies and to the extent permitted by funding, staffing, and all applicable state and federal guidelines, including program eligibility; and

- Communicate with the City and/or with the Identified Individuals any deficiencies in applications, issues with continuing required paperwork, and other issues that could jeopardize an Identified Individual's housing at the Homeless Services Center.

Portland Trails

Portland Trails is eager to partner with the City of Portland as well as the staff, service providers and folks who are receiving services at the Service Center. As a land manager of adjacent public conservation land and the trail system that provides both transportation and recreation opportunities for all community members, we will be part of the everyday experience of many service recipients. As a previously industrialized neighborhood invites more human activity, we want to engage in regular dialogue to ensure that transition is as smooth as possible for all.

II. Staffing and Management Responsibilities

Staffing Roles:

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three managers there will be on-site coverage 6am-11pm, as well as 24/7 on-call rotation. Having round-the-clock coverage affords clients the opportunity to connect with a member of the management team whenever desired. This level of access fosters an environment responsive to the needs of our clients.

The Shelter Director is responsible for supervisory and administrative work managing homeless shelters, supervising shelter attendants, security staff, housing counselors, senior human service counselors and managers. This work typically involves the development, planning, promotion, coordination and administration of Division programs. The Program Manager of a City Shelter is directly responsible for the operations and housing programs of the shelter. This position will be directly involved in budget development & management, personnel supervision, and development and implementation of various policies. Regular assessment of program plans and accomplishments will be reviewed in conjunction with the Social Services Division Director. The Director supervises a staff of professional, administrative and support staff, both directly and through designated supervisors. The Shelter Director participates in all grant application processes, program planning, and service evaluations including shelter audits. This position is responsible for meeting program reporting requirements, monitoring outcome measures and expenditures, compliance with all applicable federal and state regulations. The Shelter Director represents Shelter programs in the community, serves as a member of relevant committees, task forces, etc. The Director serves as liaison with community groups and individuals and neighbors regarding homeless issues. Additionally, the Director develops policies and procedures to support complex safety needs associated with homeless shelters.

The Assistant Director of Shelter Operations works a flexible schedule but primarily provides evening management coverage. The Assistant Director of Operations is an administrative management position responsible for oversight of overall shelter operations including

compliance and ADA regulations, purchasing, human resources management, and ensuring overall consistency for shelter operations. This position assists the Shelter Director with compliance of policies, procedures and regulations. In concert with the Shelter Director, this position oversees safety guidelines for facilities. This role is responsible for hiring shelter attendants, security guards and shelter supervisors in consultation with the Shelter Director. The Assistant Director of Operations must have knowledge of local homeless resources, staff supervision, crisis management, experience working with a diverse population including chronically homeless, mentally ill, physically disabled and substance addicted populations.

The Assistant Director of Housing Services works a flexible schedule but primarily provides daytime coverage. This is an administrative/management position responsible for coordinating housing and support services and will provide direct supervision to the Housing Service's Team. This position will be responsible for implementing established shelter policies regarding housing for all clients. This individual will maintain relationships with service providers and landlords that will help benefit our clients. The Assistant Director of Housing Services is responsible for connecting shelter consumers to needed services, including but not limited to mental health, substance use services, and employment services. The Assistant Director of Housing Services must have experience with housing search and placement and a strong understanding of HUD best practices, the ability to communicate effectively and the ability to provide excellent customer service.

In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage. Our supervisors, or Senior Human Service Counselors, will work flexible hours providing both day and overnight coverage to include weekends. They will supervise program staff in the uninterrupted operations of the shelter and are part of the team that facilitates orientation of new program staff. This position assists in staff scheduling and performance evaluations. They will serve as liaisons between community groups and members of the public regarding program issues. They will respond to crises including medical or mental health emergencies, and physical altercations or threats of violence. Senior Human Service Counselors will also provide housing orientation and housing triage to new clients.

The HSC will be staffed 24/7 by our Shelter Attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to every day operations and work a flexible schedule across 24 hours. They will assist new clients with orientation to the facility. Our shelter attendants must possess the experience and the ability to work with clients with mental health and substance use issues. Building on their experience, each Shelter Attendant receives training to provide the following knowledge, skills, and abilities: a working knowledge of shelter policies, procedures and best practices, as well as working knowledge of community resources. This equips shelter staff to support our clients and make the necessary referrals to our housing team, as well as referring to other community partners. With the new model, many referrals will occur on-site, including to the Federally Qualified Health Clinic.

The Homeless Services Center will have a team of dedicated Housing Counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. All of our

Housing Counselors have experience working with the homeless population, housing, mental health, substance use, and community outreach. They have knowledge of the principles and practices of case management/casework. Additionally, they must have working knowledge of mental health, substance use issues and homelessness.

The Homeless Services Center offers housing services to all clients accessing the service center and will have housing staff on-site 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, “prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life.”[3]

A key part of our housing team is the Housing Retention Specialists. They connect with clients as they transition from the shelter. In support of the housing-first model, these specialists wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, which can include connecting to community meals. Housing Retention Specialists also work to make appropriate, supportive referrals to medical care and case management services. Our Housing Retention Specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for public reporting. The Administrative Assistant aids management with review of data before grant submissions. This position ensures accurate filing of incoming client intakes and nightly paperwork in accordance with state regulations. They assist in ordering appropriate supplies for the HSC. This person also works with management on specialized tasks, giving great attention to detail and a high level of accuracy.

Our Facilities Team is an integral part of ensuring that the space is a safe, clean and inviting environment for clients to access and staff to work. We have facilities staff on-site from 6am-2am. Our Facilities Team responds to all maintenance emergencies and works with all maintenance vendors to ensure our building and grounds are operating at peak condition. Facilities staff duties include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance as necessary, routine exterior maintenance, including snow removal, and other tasks as required. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

[3] NAEH. (2016, April 16). *Housing First.* End Homelessness. https://endhomelessness.org/resource/housing-first/

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security Staff will have an office located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security Staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. Security Staff are trained to address conflicts that arise on property or grounds and will assist HSC staff and Emergency First Responders in securing an area during an emergency. Security Staff must have strong and effective communication skills, including strong active listening skills and speaking skills as they will be communicating with clients, other staff, first responders and neighbors. Security team members must have excellent customer service skills. Additionally, security staff must have the ability to remain calm during unusual occurrences, disturbances, or other stressful situations.

The management team will meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For a full list please see **Exhibit 4**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Using this client-centered model, staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the Homeless Services Center. If guests need shelter after this program's hours the Homeless Services Center phone number and the after hours General Assistance number will be prominently displayed at the Prevention and Diversion Center, our contact information will be available through 2-1-1 and community outreach programs will have access to our 24-hour line for after hour admissions. Should a client call for assistance after hours, Homeless Services Center staff will provide transportation from the Prevention and Diversion Program to the Homeless Services Center.

The City of Portland does not turn anyone in an emergency of homelessness away. Clients accessing the shelter complete a housing-focused, strengths-based intake assessment, are assessed for symptoms of infectious disease (at which point appropriate medical referrals would be made) and after completion of an intake are assigned a bed.

The Homeless Services Center will continue the City's current model of providing 24 hour continuous services to our clients. Unlike the City's current shelter, clients will have ample room to move throughout the facility, allowing for the space to remain clean, safe and sanitized while not restricting individuals to small areas. Following the lessons learned from the Expo shelter, City staff feel it is best practice to ensure that we have an open facility with clear site lines where clients can have access to services on-site. Clients will have the ability to utilize laundry facilities and shower facilities as needed. On-site meals will be available three times a day, understanding that many of our clients are busy seeking housing or are employed and may miss meal times, staff will ensure clients have access to food outside of those meals. Mail services will be provided on-site to ensure their ability to receive important documents that are imperative to housing: state identification, birth certificates, etc. In addition, clients will have access to their assigned beds throughout the day.

It is important to the City that all clients entering the Homeless Services Center feel comfortable in their sleeping areas. HUD's Equal Access Rule protects the rights of transgender and gender non-conforming people by mandating that "access to shelter and housing must conform with, and adhere to, an individual's self expressed gender identity." [4]. Homeless Services Center staff ask individuals to self-select their dormitory based on their self-identified gender. For individuals who do not feel safe or comfortable sleeping in the men's or the women's dormitories, the City will provide separate sleeping space. Self-identified trans, nonbinary and gender-diverse clients are informed that they can request this accommodation. In addition, the Homeless Services Center will include nine restrooms for clients and three in staff areas which are barrier free, fully accessible and designated gender neutral in addition to the larger restroom facilities.

The new facility will also have an expansive outdoor space-allowing clients to safely gather in a number of private areas. Clients will have access to an enclosed courtyard just off the general dayspace- part of this courtyard will have a covered pavilion for eating space, meeting with community providers and housing workers or social gathering. Additionally, the private courtyard will have exercise facilities and raised garden beds so that clients can participate in growing food for the meals. A green space with a raised platform area will be available for client use. In addition to the raised garden beds, a healing garden will be located on the other side of the facility. This will be a space for quiet reflection, small groups or meetings with community providers and housing staff.

The programmed outdoor spaces detailed above will be fenced. This will be to maintain site control and provide a higher level of protection to those seeking emergency shelter. We will work to ensure this fencing design fits in with the trauma informed design of the property. We will also continue to seek feedback from our neighbors as, and if, operational issues relating to fencing arise.

The security staff will be responsible for monitoring entry and exit into the building, as well as the perimeter entrance and exits via video surveillance. This will leave our front desk staff

[4] NAEH. (n.d.). *Trans and Gender Non-Conforming Homelessness*. End Homelessness. https://endhomelessness.org/trans-and-gender-non-conforming-homelessness/

available to respond to the needs of clients and service providers. The access points to the building include:

- *The primary building entry off Riverside Street*- The HSC's main entryway will be off the well lit and inviting walking path leading from Riverside Street to the HSC. The main doorway will be a dual door system monitored by security staff. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on-site.
- *Controlled External Entrance to locker facilities*- Located in tandem to the primary entrance, clients may first enter the external locker facility. There will be enough on-site locker storage for each client accessing the Homeless Service Center. Clients will have the ability to access their own storage space as needed. This space will exit into the dual door vestibule.
- *Controlled Staff entrance and exit*- These entrances will lead to staff administrative and housing offices, space for community providers to hold confidential meetings with clients, as well as conference room space for on-site lease signings or small trainings.
- *Clinic entrance*- The clinic will be a space that is open to the general community. Clinic staff will have the ability to admit any patient they may be treating.
- *Controlled exit from the dayspace to the private courtyard with covered eating space, controlled exit from the male dormitory to the community garden, controlled exit from the female dormitory to the community garden*- These three exits will be accessible only to individuals who are already accessing the facility and will lead to fenced in areas that provide privacy, confidentiality and safety our clients.
- *Controlled fire exits off dormitories and client bathrooms*- a mandatory number of fire exits that meet the necessary fire code requirements will be located along the rear of the building. These will be accessed in emergency situations and will be accessible for entry to those who have already accessed this facility when needed.
- *Loading and service area*- the secure loading and service area off of the kitchen and dining area will be utilized for food and donation deliveries, as well as pick up of dirty linens and the drop off of clean linens through the City's partnership with the Barron Center. We anticipate food deliveries to occur three times daily, in line with our three meals a day. We also anticipate a daily morning laundry pick up and drop off and will be receiving weekly deliveries for service center supplies.

In accordance with the Americans with Disabilities Act and Chapter 5 of the City of Portland Code of Ordinances, service animals are always welcome and are required to remain on a leash or harness at all times. Pets and other animals, however, are not allowed. We recognize the positive impact and importance companion animals have in the lives of the clients who present with them as well as the barrier to entering shelter their interdiction presents. To mitigate this barrier and improve the experience and housing success of our clients, whenever possible we work with community partners to attempt to find their animals alternative accommodations for the duration of their stay in shelter. This includes collaborating with the animal control officer, leveraging their relationships with local programs and rehousing individuals with their animals as soon as possible.

IV. Transportation

The Homeless Services Center will employ a Transportation Demand Management (TDM) approach to handle client transportation needs. Because most clients are not anticipated to drive, TDM is important beyond its traditional goals of simply reducing vehicle trips. The facility's TDM plan is included as **Exhibit 5**. Some additional points and summary information are below.

The Homeless Services Center will include a City operated 15 passenger van as a shuttle service to clients. The shuttle will operate with regular scheduled trips throughout the day to stop at service centers for appointments as well as get back to the facility, and will include after hours operation on an as needed basis. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize.

As a safety policy, staff operate the shuttle or any City vehicle, in pairs while transporting clients. This allows for the driver to remain fully focused on the safe operation of the vehicle should the passenger staff need to assess a client in medical distress or help to de-escalate any situation in the vehicle. It also allows the passenger to safely assess the vehicle inhabitants and engage with them so that nothing rises to this level of need. For individuals departing directly from the Homeless Services Center our staff will have developed relationships with these clients. They will be aware of whether these individuals are appropriate to transport via the shuttle or may require an alternate form of transport at that time. They will also be able to assess whether some clients may have previous conflicts that might indicate they should be transported separately. For individuals coming from the Prevention and Diversion Center, a safety assessment will be done with all individuals prior to transporting them. Any staff person driving the 15 passenger van must receive training from the City's Safety and Training Officer that includes safe driving practices specific to vans. As a Covid precaution the van and other city vehicles have partitions that have been installed for safety.

In addition to the shuttle van, the Homeless Services Center will continue the long-standing practices of Oxford Street by using taxi vouchers, Metro, and our current sport utility vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the Homeless Services Center will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The Homeless Services Center premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Best practice dictates clear sight lines which will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring

area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

HSC staff will provide once daily checks of the trail system adjacent to the property. Staff will also coordinate with Portland Trails and will participate in their weekly walk of that section of trail.

Cameras will be mounted externally for easy surveillance of the perimeter. Cameras are also mounted in internal common spaces not to include private areas, such as sleeping quarters and restrooms. Camera monitors will be visible from the security office, which will be staffed. Our security staff will review live feed of the cameras and we will also have access to recorded data as needed. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations. This will be reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire Homeless Services Center population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. In addition, all workstations are equipped with panic alarms for any potential emergency. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The Homeless Services Center presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed design impacts client success as well as the neighboring community. This Homeless Services Center was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the

safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 7**). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding good neighbor relations at intake. As stated in the above section *Controls for Client Behavior and Noise Levels*, we feel it is important to provide clients clear expectations of the Homeless Service Center Rules at intake. This ensures clients are aware of the expectations for their behavior while utilizing the HSC and clearly outlines the rules in place to provide safety to clients, staff and the neighborhood. Additionally, we have a Neighborhood Engagement Strategy (please see **Exhibit 8**) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect the Homeless Services Center surroundings, the neighborhood and meet any neighborhood needs or concerns.

The following steps are taken to ensure guests of the HSC are informed and engaged around the rules and expectations of our facility:

- Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations, including the importance of being a good neighbor.
- The Homeless Service Center Staff hold regular house meetings to cover a variety of topics including reinforcement of important shelter rules and guidelines and the importance of being a good neighbor.
- Supervisors and staff meet multiple times daily for "shift change" meetings to pass along critical information, such as any client who may have an important housing appointment they need connecting to, a client who may be struggling due to ongoing mental or physical health concerns, or neighborhood concern that has been relayed that needs ongoing monitoring.
- If needed, staff will meet with clients on an individual basis to address concerns in a proactive manner and work to connect clients with any helpful resources such as but not limited to Cumberland County Crisis through The Opportunity Alliance, Detox and

substance use services, Adult Protective Services, First Responder Services of Portland Medics, Police and Fire and Greater Portland Healths onsite services.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As such, when neighborhood concerns arise, staff take immediate action to resolve the concern. Homeless Service Center staff are committed to working with clients, neighbors, businesses, and community partners until an issue has been resolved.

Mechanisms to resolve neighborhood complaints include, but are not limited to:

- Half-hour perimeter checks of our facility, grounds and surrounding areas, this will include as needed checks of the Portland Trail System.
- As mentioned previously, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. In addition, this will include as-needed, but in any event no less than daily, checks of the Portland Trails System.
- The Homeless Services Center staff will provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. Concerned neighbors are invited to call to discuss any potential issue or concern related to the Homeless Services Center. All calls will be logged and tracked.
- Additionally, The Homeless Service Center will have a member of the management team on call 24/7 to assist in resolving any issue. This allows for swift notification to managers of any neighborhood issue or concern.
- While neighborhood complaints could involve a discussion and staff intervention with a small group or single client of the Homeless Services Center, occasionally larger interventions will include our committed community partners listed in this management plan. Staff may also request assistance from:
    - The HOME Team
    - TOA Crisis Response Team
    - Police Department
    - MEDCU and Fire Department
- Once addressed, a supervisor of the Homeless Services Center will make a return call to the neighbor in order to confirm resolution.
- Calls will be tracked and logged and reviewed monthly at the neighborhood advisory committee meeting.
- The Homeless Services Center staff is happy to meet with all partners and neighbors to ensure a sense of positive community, overall wellbeing and safety.
- The Homeless Services Center will provide a representative to a minimum of 75% of regularly scheduled monthly Neighborhood Association meetings and looks forward to feedback from our neighbors at these meetings.

The City will also create an advisory group consisting of representatives from the neighborhood association, neighborhood residents, area businesses, Portland Police Department, Homeless Service Center staff, Homeless Service Center clients, the District

Attorney's office, Portland Trails and the District 5 City Councilor or his/her designee.[5] Specific members of the Neighborhood Advisory Committee will be identified and finalized before the end of construction of the Homeless Services Center.

For the first year, the Neighborhood Advisory Committee will meet monthly and will be chaired by a representative of the City's executive staff. The group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts and/or improve client services. This group will also provide the review of the Neighborhood Engagement Strategy. Minutes will be recorded and maintained for a 24 month period at the Homeless Service Center and will be made available for review by interested parties. These minutes will reflect specific recommendations of the advisory group and will be annotated to reflect whether these recommendations have been implemented. Upon agreement of the majority of group members, the advisory panel will shift to quarterly meetings in year two.

IX. Monitoring:

The Homeless Services Center management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee, and various housing related boards and committees of the City, such as, but not limited to, the Rent Board and the Housing and Economic Development Committee.

[5] Sauschuck, M. J. (2018, September 8). *Security Planning and Procedures for Proposed Homeless Service Center.* Portland Maine. https://www.portlandmaine.gov/DocumentCenter/View/22367/HSC-Memo

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly and those will be posted on the ESAC webpage which are linked from the City's webpage. Additionally, we post weekly updated data and statistics to the City of Portland Health and Human Services website.

This management plan may be subject to periodic updating and review. As with all elements of an approved plan, proposed changes to the approval require amendments. In the event that changes to the management plan are needed, Health and Human Service Staff shall submit to the Department of Planning & urban Development any proposed amendments to this management plan and the Department of Planning and Urban Development will determine whether such changes qualify as a major amendment, and therefore subject to review and approval by the Planning Board, or whether they qualify as a minor amendment, and may be reviewed and approved by the Planning Authority.

Exhibit 1: Overview of the Process to Replace the Oxford Street Shelter

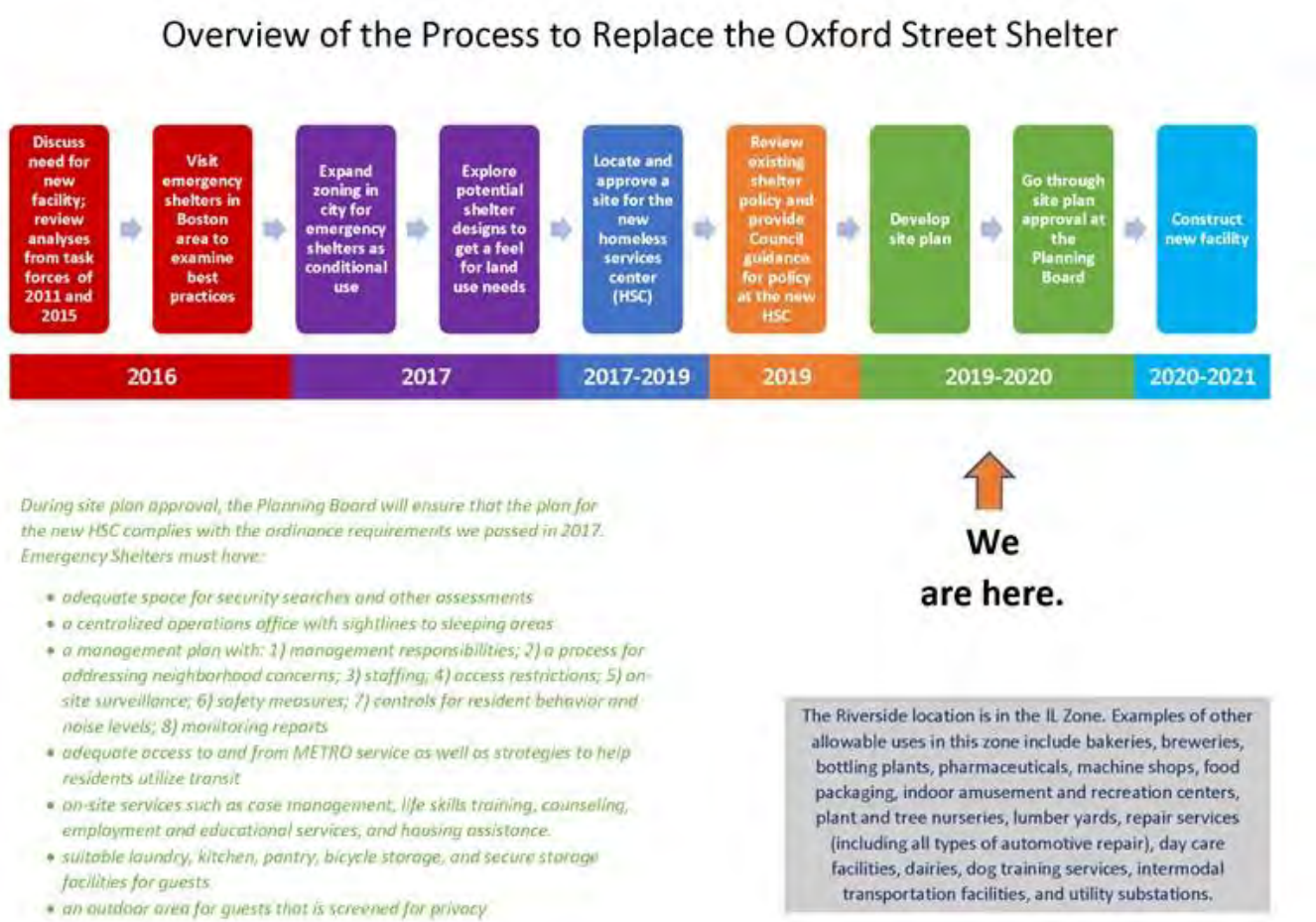

Exhibit 2: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Metro Route 2
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Mail services
- Meals
- On-site health care clinic
    - Primary Medical care
    - Infectious Disease Services
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services
    - Peer support groups

Exhibit 3: Service Providers Planning to Offer Services or Outreach On-Site[6]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - The Public Health Division
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[6] This list appears in alphanumeric order.

Exhibit 4: Staff Training and Professional Development[7]

- **Bloodborne Pathogens training**
  OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure
  Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting HIV, Hepatitis C, or other bloodborne diseases
- **Cardiac Science: AED**
  The Automated External Defibrillator (AED) training teaches basic AED rescue skills and correct defibrillation procedures.
- **Customer Service Training**
  Through this customized training, you will have the opportunity to explore the City's vision, goals, and values and how they relate to a culture of excellent customer service, learn about our new customer service vision, renew your commitment to customer service, learn best practices, reinforce the structures already in place that support great customer service, and identify the things you need to improve customer service.
- **Diversity and Inclusion Workshop**
  The City of Portland is committed to an inclusive workplace in which differences are respected and valued. Portland's demographics are rapidly changing and, by extension, so are our employee, visitor, and customer populations. During this interactive, two-hour workshop, participants will increase their awareness of personal biases - both explicit and implicit - and how they impact the way in which we navigate the world; explore practical, proactive strategies for responding to acts of bias and prejudice; and examine strategies to promote respect for diversity, equity and inclusion within the City.
  https://implicit.harvard.edu/implicit/takeatest.html
  Implicit Association Tests are online tests designed to explore our hidden or implicit biases, aimed to detect the strength of a person's automatic associations between concepts(e.g. women, homosexuals) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). You will be asked to sort pictures and words into groups as fast as you can. IATs evaluate automatic associations on many different topics such as race, religion, gender, sexual orientation, and weight
- **Emergency Action Plan training**
  Helps train employees on what to do in an emergency whether it's a fire, flood or an active shooter. The City has a predetermined emergency action plan to assist employees in knowing what to do in these different emergency situations. The training goes through the plan.
- **Equal Access to Housing training by GLAD**
  This training covers ways you can create a more welcoming and safer environment for LGBTQ persons. Learn the basic concepts and expectations of the HUD Equal Access to Housing rules and what rights are covered under this rule for individuals regardless of their sexual orientation and in accordance with the individual's gender identity, and in a manner that affords equal access to the individual's family.

[7] This list appears in alphanumeric order.

- **First Aid and CPR**
  Providing basic first aid, CPR and knowledge to assist guests until EMS arrives.
- **General Assistance Training**
  An overview of the General Assistance Program and the nuances that impact securing housing for individuals experiencing homelessness.
- **Homeless Management Information Systems trainings**
  -Maine Housing Emergency Shelter and Housing Assistance Program
  -Stability Through Employment Program
  -Rent Smart
  -Data & Security
- **Housing Training for Supervisors**
  An ongoing overview of housing assistance, voucher programs, general assistance, community resources and ways to keep conversations in shelter housing and solutions focused.
- **Human Trafficking in Maine: Identification and Response by Preble Street and Maine Coalition Against Sexual Assault**
  Understand the problem of human trafficking. Learn how to identify survivors of human trafficking. Learn how to meet the needs of people who have been trafficked.
- **In their Shoes Refugee Training**
  This is an interactive simulation provided by Catholic Charities Refugee and Immigration Services. The program is designed to help participants walk in the shoes of a refugee and come to understand the tough decisions faced by someone fleeing for safety.
- **Introduction to Cultural Competency**
  This interactive class explores the various cultures that we inhabit and steps that we can take to become more culturally competent. Cultural competency - the ability to understand, communicate with, and effectively interact with people across various cultures- is a lifelong journey and a skill essential to succeeding in today's culturally-diverse work environment.
- **Language Access Training**
  In this one-hour training, we cover how to identify a Limited English Proficiency individual; the distinctions between interpretation and translation; how to access and best utilize an interpreter; and translation of departments' vital documents. City staff who routinely interact with members of the public are expected to attend.
- **Mental Health First Aid Training Conducted by NAMI Maine**
  Mental Health First Aid is a national best-practice, evidenced-based certification course that is 8 hours in length and leads to a 3 year certification issued by the National Council on Behavioral Health.
- **Military Culture 101**
  A program designed to educate service providers on Military culture and resources Veterans can access.
- **Narcan/Overdose Reversal/Response Training**
  The Public Health Division provides best practice training on recognizing and responding to an overdose, on an as-needed basis, at the request of shelter staff. This training includes: risk factors, prevention strategies, signs and symptoms, and appropriate response, including calling 911 and administering Narcan. In addition to training, the Public Health Division provides Narcan at no cost to the Shelter.
- **National Alliance to End Homelessness Conference & Capitol Hill Day**

The 2019 National Conference on Ending Homelessness and Capitol Hill Day was the nation's largest convening of service providers, leaders, advocates, and consumers working to end homelessness in the United States. The July conference featured dedicated tracks focused on families and youth experiencing homelessness, updated content on chronic homelessness, veterans, single adults, and other populations. Capitol Hill Day offered an opportunity to speak with members of Congress and their staff and advocate directly for the resources that will benefit homeless families, individuals and youth in your districts.[8]

- **New Employee Orientation**
  For all newly hired employees, a New Employee Safety Orientation online training is required to be completed by new hires through our Maine Municipal Association website, NEOgov. This training covers the following safety issues: Accidents and Emergencies, Fire Safety, Preventing Slips, Trips and Falls, Back Safety, Ergonomics for the Office, Personal Protective Equipment, Hazard Communication, Bloodborne Pathogens, Defensive Driving and Equipment Safety.
  In addition, the following City policies are reviewed with new hires within the first 4-6 weeks of their employment: Equal Employment Opportunity and Nondiscrimination Policy, Policy against Harassment, Workplace Conduct Policy, Drug Free Workplace Policy, Work Related Injury Management, Technology Use Policy, and our Communication and Social Media Policy. New hires are provided an overview of policies via a powerpoint presentation either in person or at the employee's discretion (new protocol during response to COVID pandemic).
- **New Per Diem Training**
  Conducted with all new employees, this training is an overview that covers a broad range of topics including customer service, review of shelter policies and safety, emergency response (how to call for assistance in an emergency, how to communicate to dispatch, use of your two way radio), overdose reversal and use of naloxone, scenario training (which can include how to de-escalate a client in distress, use of progressive discipline, etc).
- **Rapid Resolution Housing Training**
  Rapid resolution is a client-centered, problem-solving approach designed to meet the housing stability needs of most persons seeking homeless assistance.
  Client-centered—with a focus on the client's agency in resolving his or her own housing crisis; Flexible–all available housing options are creatively explored through a problem solving conversation; and Immediate–providers recognize a critical window of opportunity to act swiftly to resolve the housing crisis.
- **Reasonable Suspicion for Supervisors**
  This training is to assist when supervisors have evidence or reasonable cause to suspect an employee of drug use. This is needed for the supervisor to know how to follow proper protocols and documentation.
- **Serious Accident Reporting**
  This training defines "serious physical injuries" and the steps to take when reporting to the Maine Department of lAbor is necessary as outlined in the City policy "City of Portland Mandatory Reporting Requirements for Employee On-the-Job Death

[8] "Conferences" *National Alliance to End Homelessness* https://endhomelessness.org/events/conferences/

or Serious Injury Standard Operating Procedure."

- **Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health**
  Trauma-informed care recognizes the physical, mental, behavioral, social and emotional impacts of the experience. Tese training covers core principles and explains Adverse childhood experiences (ACEs) which are stressful or traumatic experiences that happen during the first 18 years of life.
- **Understanding and Supporting LGBTQ Individuals**
  Provides attendees the opportunity to learn more about what it means to be part of the LGBTQ community with special attention given to understanding what it means to be transgender, non binary, and gender non conforming. The presentation will address ways in which City of Portland staff can be more inclusive in their day-to-day work by using inclusive language and terminology, navigating names and pronouns, processing forms and documents, and implementing smart practices to use to make your workspace more inclusive of everyone.
- **Verbal Judo**
  Provides staff with de-escalation techniques through verbal communication to avoid further conflict with individuals including redirection strategies, ultimately decreasing resistance. The goal of the course is to enhance professionalism, decrease community complaints, decrease liability, lessen stress and increase morale for guests employees.
- **Violence Against Women Act training by Through These Doors**
  Provides an overview of the Maine Coalition to End Domestic Violence, the individual resource centers serving Maine and the services offered, presents *Violence Against Women Act overview: "What is VAWA? Who is protected? What programs are impacted?"* and reviews housing protections for survivors and the responsibilities for housing providers.
- **Workers Compensation for Supervisors**
  Explains the procedure for referral to partner urgent care providers and reporting requirements when staff are injured while performing their duties.

Exhibit 5: Transportation Demand Management Plan

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Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street – Portland, Maine
Revised August 31, 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile[1] of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[2]
- Sight lines in each direction at driveway exceed 500 feet[3]
- Driveway separation – 176 feet4
- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 – 16892) yields 14 crashes and Critical Rate Factor (CRF) of 0.785. Riverside Street at the site driveway is not a High Accident Location.

[1] Measure from Forest Ave outbound Transit stop to the proposed door is 2,340 LF or 0.44 mile
[2] MDOT AADT information – Riverside St N/O Warren Avenue
[3] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.
[4] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.
[5] From MDOT for period 01/01/2018 to 12/31/2020

- Collision data for the Intersection of Forest Ave and Riverside Street (Node 16892) yields 41 accidents from 01/01/2018 to 12/31/2020. The intersection is considered a high crash location with a CRF of 1.17. The majority of accidents result from vehicles following too close and driver inattention on the Forest/Route 302 inbound leg and on the Riverside northbound leg. Accidents do not appear to be related to pedestrian crosswalk movements.
- Collision data for Forest Avenue from the Riverside Intersection to the Riverton Drive (nodes 16892 to 18508) yields 5 accidents. This location is not identified as a high accident location. Safety measures at the Transit stop crosswalk include a recently installed Rectangular Rapid Flashing Beacon (RRFB) assembly that is push button activated to signal vehicular traffic of crossing pedestrian movements. The project has also committed to wayfinding strategies to include signage and pavement markings to clearly identify the safe walking route for Shelter users from the transit stops to the Shelter.
- Street lighting from the Forest Ave transit stops to the shelter includes a cobra head light over the outbound transit stop and a streetlight on the NW corner of the Riverside intersection. On Riverside Street there are several pole mounted cobra head streetlights. At least four utility poles are available for additional streetlights if necessary to improve lighting over the proposed 6' wide sidewalk on the west side of the street. Additional lighting will be discussed with the City DPW and CMP.
- Nearby Peak hour traffic volumes are summarized as follows:[6]

TABLE 1
TRIP GENERATION

Site	Traffic Count AM Peak Hour (6:30 – 7:30 am)	Traffic Count PM Peak hour (3:45 – 4:45 pm)	ITE[7] AM Peak Trips	ITE PM Peak Trips
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1,229**	**1,652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 6' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These existing bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding

[6] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)
[7] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;
- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals. There are basically 30 runs from METRO Pulse outbound beginning at 5:45 am and ending at 10:40 pm. The Route 2 alternates hourly service to the Hannaford Street on Riverside and to Prides Corner which does reduce overall service to Westbrook and points west. Saturday service is decreased with 16 outbound runs beginning at 6:20 am and ending at 9:40 pm. Sunday service includes 8 runs from 8:20 am to 3:20 pm.

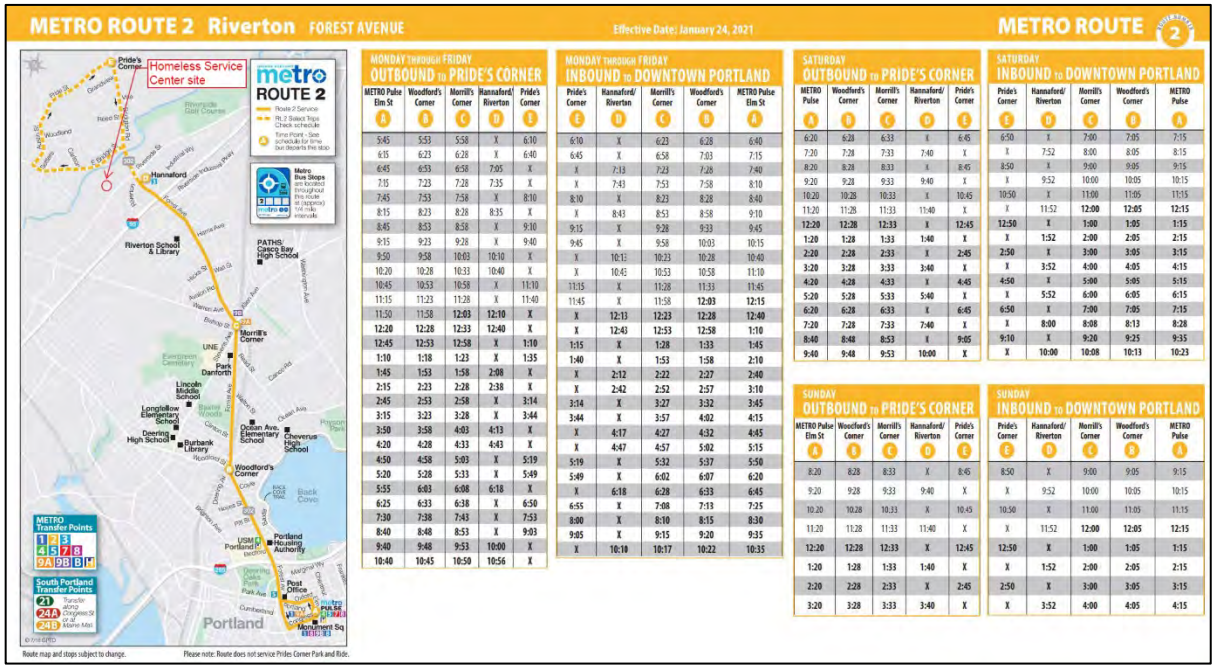


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

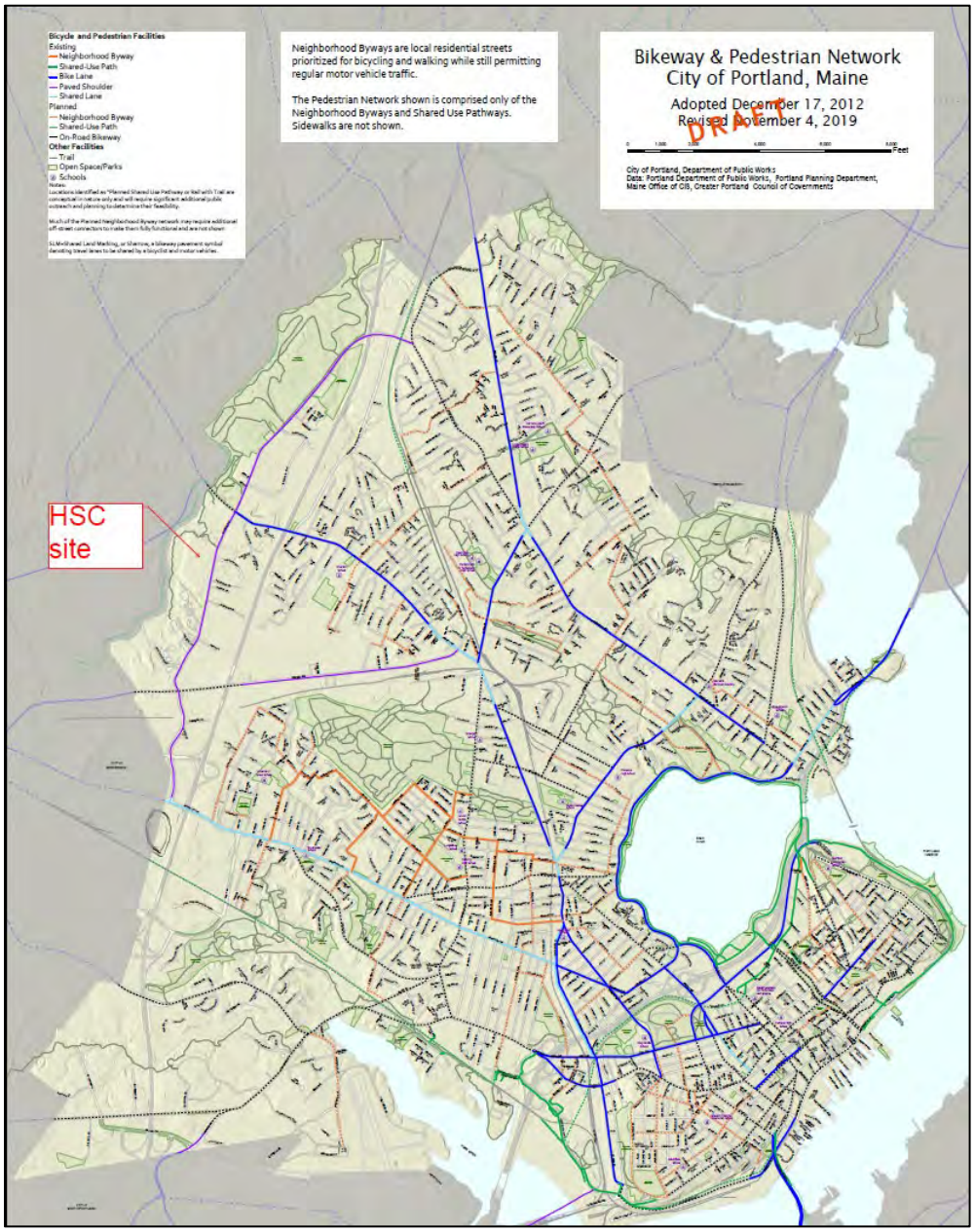


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hour staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however, in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered. A target period of 3 years is set and will be re-evaluated as part of the annual reviews.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN

Agency/Position	Number of Anticipated Vehicles	Time-in	Time-out
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

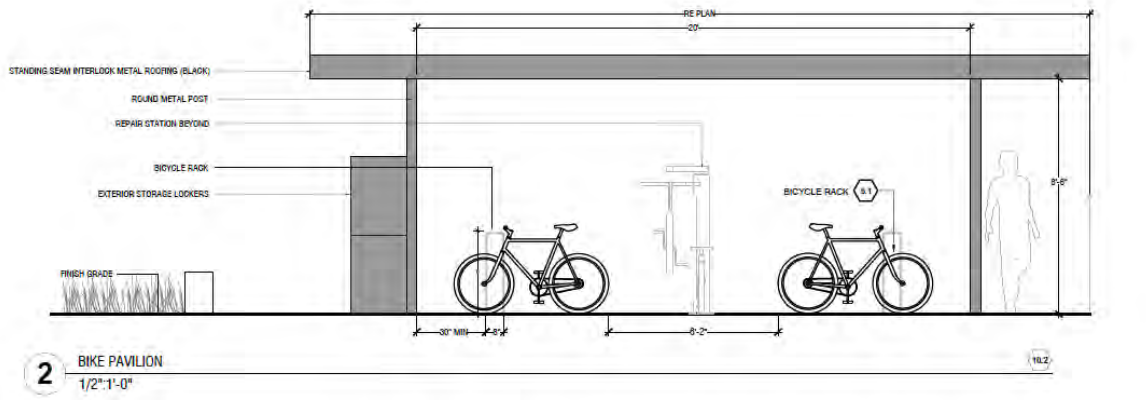
Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.4 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. Currently free bus passes are offered to shelter guests. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Signal improvements will include the implementation of Leading Pedestrian Interval or Blank out signs to prohibit vehicular right turn conflicts with pedestrian crossing movements. Wayfinding signage will be provided at bus stops and along Forest Avenue and Riverside Street to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order. A new bus shelter[8] is proposed for the Inbound transit stop at the Riverton Drive location.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion as detailed as follows:

[8] Per city staff a private fuel station development on Forest Ave is responsible to install the new bus shelter.



The development activity will result in the construction of a new 6' wide City standard paved sidewalk from the Forest Avenue intersection to the site entrance as well as 12' wide paved entry sidewalk into the site. Pedestrian Signal improvements at the Forest Ave/Riverside intersection will be performed for safety and coordination with the existing traffic signals. A restriction on right turns off Forest Ave onto Riverside will be implemented during crossing phases to minimize conflicts with vehicles and pedestrians.

The operators will prioritize the availability of information to guests to include bicycle and walking information. Equipment will be made available to guests to include reflective material for clothing, bicycles and carts. The operator will consider partnership opportunities with support organizations for such things as bike repair training.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; At least 2 spaces closest to the building will be designated for ride share parking; The TDM Coordinator will query staff participants for other possible perks that may interest them that might include gift certificates or similar rewards for promoting and participating in the TDM;
- Implement a ride share registry to match employees interested in ride share;
- Employees are encouraged to bike or walk as part of the City's Wellness Program that offers discounts as part of the health coverage benefits package; and
- Continued participation in the annual Commuter Challenge events.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with staff and guests by acknowledging the challenges associated with TDM goals and objectives that may include lack of access for walking, biking, equipment, ample opportunity for access to transit or other aspects that just make it difficult for guests or staff to participate in TDM strategies. Understanding participant's views and challenges will help inform future modification and improvement to the TDM plan and this will be prioritized as part of the annual reporting.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips

using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

Exhibit 6: Resident Contract

GUEST CONTRACT

The Homeless Services Center is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our facility. Any violations of our safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the building or on the premises is strictly prohibited and could be grounds for restriction from access.
- **Weapons of any kind are not allowed in the building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into the building or waiting areas. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access.**
- **Use of inappropriate speech can result in restriction of access. The City has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The City has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction to access.**
- Sexual activity of any kind is not permitted in the facility or on the grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the facility and on the grounds. This includes wearing shoes while moving around the facility to protect from injury.
- Out of respect for others, cell phones must be turned off or silenced after 8pm in the dorms. Guest phones are available for use. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**
- Electronic devices that do not emit light, are used with headphones and do not disturb other shelter guests may be permitted at the discretion of the supervisor on duty.
- The lights out in the dorms will be 8:30pm.
- Good personal hygiene is a priority. Showers are available with 24 hour access, personal hygiene items are available upon request from staff at the front desk.
- Guest laundry services are available, please see staff for any assistance needed.
- Clean blankets, towels and other linens will be provided.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- Lockers are available on-site. Please see a staff member to sign up. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- The City is not responsible for lost and stolen belongings. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Service Center ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests are expected to attend housing orientation the day following their intake to the service center for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please respect our neighbors and neighborhood at all times.

Agreements

- *I hereby accept shelter at the City of Portland Social Services Division Homeless Services Center and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.*
- *I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.*
- *I authorize the Social Services Division Homeless Service Center to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.*
- *I understand that Service Center Staff and/or management may restrict my access to the facility and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff and relating to staff at the Service Center.*

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 7: Reasonable Rules

HOMELESS SERVICES CENTER POLICY – REASONABLE RULES

The **Homeless Services Center (HSC)** is a City run facility for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in the City run facility. In addition, the City reserves the right to refuse admission to the HSC to any individual whose presence is determined by the City to pose a danger to other individuals residing in the HSC or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in the HSC facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to the facilities or property or neighborhood
- Smoking or vaping is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 8: Neighborhood Engagement Strategy

Homeless Services Center

Neighborhood Engagement Strategy

Staff of the **Homeless Services Center** are committed to maintaining a positive relationship with our surrounding neighbors through engagement and collaboration.

Staff build and maintain good relationships with both clients and neighbors and can assist in neighborhood issues as they arise. We work to ensure client behavior expectations are clear through regular Service Center meetings with clients. A recurring topic at these meetings will include having a positive impact on our neighboring community.

The HSC runs a 24-hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving guests along from a neighbor's front steps, etc. and can decrease police calls for service.

Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

The HSC offers ample locker storage to allow clients a place to leave their belongings while going on housing showings, job interviews, etc.

A representative of the HSC will attend a minimum of 75% of the monthly Riverton Community Association meetings.

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

August 12, 2021

Mr. Matt Grooms
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application – Letter of Response #1
Applicants: DC Predevelopment LLC and City of Portland

Dear Matt:

On behalf of **DC Predevelopment LLC and City of Portland (Applicants)**, our office has received and reviewed the latest Planning Staff review comments from your office on July 23, 2021 in advance of the workshop meeting. As we presented to the Board, we have now updated the plan set to address not only the staff comments as discussed below but also the various comments made by members of the public and the Planning Board members. The updated plans will be uploaded in eplan along with this response letter and the supporting information pieces discussed below. The City of Portland Health and Human Services (HHS) Staff have also updated their Management Plan and that too will be uploaded for Planning Staff review. We offer the following responses to address the comments and questions from the workshop meeting. The first items below are directly from the Planners report. We follow that with our understanding of Public and Planning Board member comments and our responses as necessary.

STAFF REPORT COMMENTS

The following comments were outlined in the Staff report to the Planning Board:

A Site Access, Transportation and Parking

1. *Provide additional information on anticipated parking demand in support of the TDM waiver request. The applicant should also consider strategies for reducing parking demand among both employees and service providers.*

Response: The development team withdraws the waiver request for the TDM Plan and we have now completed a TDM Plan document included in Attachment A that is now part of the overall Management Plan. The TDM Plan outlines the HHS objectives for implementing TDM strategies and incentives for staff, guests, and visitors with the goal of lessening the impact of passenger vehicle transportation to the facility. We note that a primary beneficial outcome of the new Homeless Services Center will be the reduction of traffic onto the Peninsula and specifically in the area of the Oxford Street Shelter.

The City's original RFP contemplated a parking supply of parking for 28 to 30 vehicles. The current Site Plan shows 56 parking spaces including 4 ADA spaces. After a detailed analysis of staffing patterns, and as

detailed in the TDM plan, parking spaces were added to the original plan based on the following specific programming pieces in the building:

- Sixteen (16) offices for services that are expected to be provided at this facility. At times each office may be staffed concurrently.
- Staffing to oversee the dormitories, kitchen spaces, reception, security, and related site programming. As outlined in the TDM there at 63 positions over a 24-hr staffing period with some overlapping shifts and site support functions. Parking flexibility is required due to the overlapping shifts, shuttles services, deliveries and related site/facility program functions.
- Guests – Up to 208 Beds. Although most guests will not arrive by their own personal vehicle, there will be occasions when this does occur.

2. Hold traffic scoping meeting with City staff.

Response: A Traffic Scoping Meeting was held on August 5, 2021 at 10:00 AM with City Staff and our development team representatives. Major items of discussion included parking demand, access conditions, sidewalk access, wayfinding and trip generation. The TDM provides greater detail including the results of adjacent use traffic counts.

3. Provide clarification on how loading bays will function.

Response: The 46' x 115' loading/service area identified on the plan will be at grade with the kitchen and receiving spaces in the building. Normal product deliveries are expected to consist of box trucks and similar smaller sized vehicles. The loading area will have adequate maneuvering space for these vehicle movements. Deliveries will be typically handled by hand or small cart for delivery into the building. Delivery hours are likely to be mostly in the early morning hours and the facility staff will coordinate with delivery vendors for an orderly schedule of deliveries to avoid crowding of vehicles in the loading zone. A fire access gate will be provided on the south end of the loading/service area and when open, the gate will allow access to the perimeter loop around the rear of the building and access to the guest yard spaces located at the south end of the building. There will be no dedicated semi-trailer loading dock as large truck deliveries are expected to be very infrequent.

Emergency vehicles including principally fire apparatus will be able to enter the site via Riverside Street and proceed to circumnavigate the site perimeter via the 24' access drive or 20' wide perimeter loop behind the building. The accompanying AutoTURN analysis provided in Attachment B indicates adequate radii have been provided for the fire trucks around the site.

4. Provide ADA accessible route to established fixed-transit stops.

Response: The Team proposes to construct a new 5' wide paved sidewalk on the west side of Riverside Street, extending from the site driveway north to the existing sidewalk terminus, a distance of approximately 1,250 feet. That distance includes some existing partial sidewalk near the intersection that must be reconstructed to provide full 5' wide and typical City sidewalk compliant conditions. The new sidewalk will be completed in accordance with the City Technical standards for sidewalk construction. When complete, the sidewalk will provide an ADA accessible route from the site to the Forest Avenue/Riverside Street

intersection. At the intersection, pedestrians have access to push button activated crossing signals within the street light system. Transit users will be expected to cross Riverside Street at this location to proceed to/from the existing bus stops, located just approximately 325 feet east of the intersection. Inbound transit users will use the bus stop on the south side of Forest Avenue while outbound transit users coming from intown will exit the bus on the north side of Forest Avenue and must cross either Forest Avenue or Riverside Street to use the proposed sidewalk for access to the Shelter. There is currently a new RRFB warning system at the mid-block crosswalk at the bus stops on Forest Avenue.

5. *Provide evidence in support of the number of parking spaces being provided and consider allocating certain spaces to shelterguests.*

Response: Please see Response A.1 above and the TDM Plan for additional information.

6. *Clarify that all parking spaces shall be made EV-ready.*

Response: The Utility Plan includes EV features at 12 of the parking spaces in accordance with the Technical Standards. The team proposes the installation of additional conduits at the remaining spaces to prepare for future increased demand. The site's electrical controls and panels will be sized for the possibility of increased EV capacity over time.

7. *Provide additional details on site access, specifically with respect to the emergency vehicle access lane.*

Response: The site access consists of a single 24' wide driveway off Riverside Street. The drive will allow for direct access to the primary parking lot and also allow for access to the primary building entrance. The access drive will parallel a 12' wide paved sidewalk that also extends from the street to the building entrance. The design includes raised crosswalks at locations where the vehicular drive will cross the pedestrian route, thus providing an improved safety condition for walkers and also serving to keep vehicular movement slow throughout the primary front yard of the facility.

The emergency access lane is intended to circle the building to allow full access. Outside of the loading area to the left of the main building entrance and the access drive to the parking, the emergency access drive will contain non pavement surface materials to lessen both the visual appearance and account for the lower vehicular use it will see. As suggested by Staff, the perimeter access loop surface will contain a reinforced turf surface that will support the occasional emergency and service vehicles yet be less harsh than pavement for runoff conditions, etc. Several gated openings will be provided for the fence enclosure on the south end of the outdoor guest areas and collapsible bollards are proposed to prevent unauthorized vehicle access around the north end of the building along that perimeter drive.

B. *Site Design and Landscaping*

1. *Provide additional information on building material palette.*

Response: See the accompanying information in Attachment C, from Winton Scott Architects regarding building materials, roof top screening, additional building renderings and an overall architecture summary.

2. *Identify accessible areas of the site for guests, and consider more deliberate accommodation of resident circulation to outdoor spaces, such as the healing garden.*

Response: The accompanying building floor plan includes modifications to the door locations to improve the internal flow and also improve access to the exterior areas including the healing garden space on the north end of the building. The Site Plan includes information on the dedicated ADA routes within the site, which are nearly all areas open to foot traffic to/from the building.

3. *Coordinate with the City Arborist on tree protection in conservation areas, and establishment of a transitional planting zone between site and conservation area.*

Response: ALA Landscape Architects have reached out to Jeff Tarling and await an opportunity to meet with him to discuss the conservation areas, tree protection and transitional planting zones. Additionally, the applicant's landscape architect and engineering team have worked in close coordination to identify significant tree stands, minimize disturbance and updated plans to indicate tree protection. We note that nearly all of the development footprint lies within previously filled land area thus there are very few trees worthy of protection or that will not otherwise be replaced or improved upon with the proposed landscape design.

4. *Consider the use of pervious surface materials within recreational plazas and emergency access lane.*

Response: The site plan includes a reinforced turf surface for the proposed perimeter access loop around the building. The reinforced turf will consist of a GrassPave™ or equal system. The plaza designs have also been improved to include porous pavers as part of the surface materials.

Figure 1 Grasspave™

5. *Coordinate with City on placement and design of street and wayfinding signage.*

Response: The placement and design of wayfinding signage was discussed at the Traffic Scoping Meeting and the development team has agreed to install any and all signage as required by the City. This includes the placement of wayfinding signage from the transit stops on Forest Avenue to the HSC facility. The scope of the actual signage measures will require continued coordination with the City Sign Shop, outside sign vendor, Codes, and HHS to arrive at the graphics and messaging to be provided. Similarly, additional City-wide HSC wayfinding will be pursued in accordance with the City's signage code requirements.

6. *Highlight on the site plan where snow will be stored on site.*

Response: The Site Plan has been updated to include several snow storage locations. During periods of peak snowfall, it may be necessary to have snow removed from the site.

7. *Coordinate with City on finalization of Riverside Subdivision amendment.*

Response: As the City owns the full 28.92-acre Lot 4 we understand that Staff have concluded that a Subdivision Plan Amendment is not required. All space and bulk zoning dimensional standards of compliance have been updated on the Site Plan to reflect this condition. The limits of the Conservation Easement have

also been identified in accordance with previously recorded documents. The project area is approximately 7 acres of the overall Lot 4 area.

C. SLOD, Stormwater, Grading, and Utilities

1. Continue to coordinate with Maine DEP on the SLOD application.

Response: A package of materials satisfying Section 14 of the Technical Manual was delivered to the City on July 24, 2021 for distribution to the Maine Department of Environmental Protection. These materials include the following evidence:

- Financial and Technical Capacity – Similar materials as provided in the Major Site Plan Application.
- Traffic Movement – Not applicable as the project generates less than 100 passenger car equivalents during the peak hour.
- No Adverse effect on the natural environment.
- Soil Types – A preliminary Geotechnical Report by SW Cole Engineering that outlines the recommendations for foundations and site work based on the onsite soils conditions. As well as the preliminary information report outlines recommended considerations for foundations, earthwork, and pavements. Overall, they have concluded the site's soils conditions can be addressed by proper engineering methods.
- Groundwater – The development does not involve the extraction of groundwater or discharges that involve a ground water aquifer.
- Infrastructure – Public utilities including water, sewer, natural gas, power and communications are all available at the site. We have issued "Ability to provide Service" request letters to each of the providers and await their reply.
- Flooding – The project site is not in a mapped floodplain. The site is positioned well above the Presumpscot flood stage which does cover lower areas of the adjacent conservation land, but not the development site. The building finish floor elevation will be at elevation 69.0' (NGVD29) which is well above any nearby flood zones and the base flood elevation of 35.0' as identified on the 2nd Amended Subdivision Plan (see Note 9 on the plan).
- Stormwater Management – A stormwater management system has been designed to provide water quality treatment measures that satisfy the MaineDEP Chapter 500 rules and City of Portland technical standards. A waiver has been requested of the Flooding Standards, based on the site's location within the lower watershed of the Presumpscot River. A similar waiver request was granted for the development of Lot 4-1 for Suburban Propane.

2. Provide details and additional information on stormwater systems, notably the location of vegetative buffers and level spreaders and how such features meet Maine DEP's BMP standards.

Response: A full Stormwater Management Report including supporting calculations, plans and details are included in Attachment D for peer review. The Stormwater Management Plan includes standard BMP's for water quality treatment including multiple vegetated biofilters, grassed underdrained filters, and porous

surfaces. We have examined the site's conditions and included level lip spreaders at drainage outfalls to assure that the existing conditions are satisfactorily stable and acceptable for flow discharges from the development.

3. *Clarify whether the applicant has rights to discharge wastewater to the private sewer at 624 Riverside Street.*

Response: The proposed 8" sanitary service has been modified to extend from the proposed building out to Riverside Street where it will connect to the existing 12" sewer. The service will remain entirely on the development site and will not extend to the private sewer at 624 Riverside Street (Suburban Propane).

4. *Identify the location of the proposed grease trap.*

Response: A 1,000 gallon grease trap is now shown on the Utility plan, positioned just outside of the kitchen space.

5. *Provide updated grading and drainage plan showing the overall site drainage scheme, with greater detail such as spot grades or 0.5-foot contours.*

Response: The Grading and Drainage plan has been updated to include greater detail for spot grades and related information.

6. *Provide utility 'ability to serve' letters once available.*

Response: The utility contact letters have been issued to the Portland Water District, The Department of Public Works, Central Maine Power, and Unitil. Their replies will be provided to planning immediately upon receipt.

7. *Consider additional plantings along steep embankments to provide greater site stabilization.*

Response: A revised planting plan indicating additional plantings along steep slopes has been prepared and included with this submission.

8. *Prepare a stormwater maintenance agreement.*

Response: A Draft Stormwater Management Agreement is included with the Stormwater (O&M Manual) material included with this submission.

Planning Board Member Comments

The following additional general comments were offered by the Planning Board and members of the public beyond various Board comments previously addressed in the above responses. We offer the following additional information:

- *Please provide a write-up of the survey results and the work done directly with persons with lived experience of homelessness.*

Response: A three hour design workshop was held on August 9th, sharing draft plans and taking input and comment. This is the first of several workshops to be held, which focused on site amenities and improvements,

thus allowing for inclusion into the Site Plan process. A summary of the findings as well as the survey are included in Attachment E to this submission. The input did result in significant changes to the site amenities, which are shown in the new Site and Landscape Plans and will be detailed further in the materials to be provided.

- *Identify all existing fencing on/near the site for other lots.*

Response: There are existing fences that surround the Lucas Tree site, the Suburban Propane site and the Seacoast Scaffold site. The images below show some of these existing fences:

Figure 2 Tower

Figure 3 Seacoast Scaffolding

The Lucas Tree property contains fencing along the north and west sides, basically along the proposed shelter boundary. Seacoast Scaffold appears to have chain link security fencing and access gates around their outside materials storage spaces. Similarly, Suburban Propane also has a chain link security fence around the perimeter of the stockyard. Schnitzer recycling further to the south of the proposed shelter site also has chain link security fencing around their perimeter.

Figure 4 Fencing

The applicant is committed to providing a continuous chain link fence from the Riverside Street right of way line along the southerly site boundaries of Lot 3 (Lucas Tree), Lot 4-1 (Suburban Propane), and Lot 1 (Schnitzer). The fence may involve existing fence that may remain in place, new replacement fence and/or new fence on any existing gaps. Prior to any construction, all existing fence locations will be field surveyed for completeness, condition, and location in coordination with adjacent landowners. Any deficiencies will be corrected at Applicant's expense.

- *Show solid waste enclosure.*

Response: The latest site plan includes a 10' x 20' concrete pad and solid waste enclosure that is suitable for a waste container and recycling container. The pad will be located on the south side of the loading/service area. The enclosure will consist of a black vinyl chain link fence with privacy slats like as shown below:

Figure 5 Solid Waste Enclosure

- *AUTOturn figures for loading zone and emergency vehicle circumnavigating the site.*

Response: The accompanying AutoTURN figures included in Attachment B show vehicle movements around the site.

- *Verify tower heights and any fall zones that might apply.*

Response: The Lucas Tree tower is 120 feet tall and according to Jon Belanger of the Portland Fire Department the City's onsite tower is 180 feet tall. There are no known setbacks, and City Staff has confirmed there are no fall zones that apply. The tower is surrounded by a chain link security fence and has a gated opening on the north side. This opening will remain accessible off the proposed entrance driveway for maintenance and access to the tower site.

Figure 6 Towers

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Attachments:

Attachment A – Management Plan
Attachment B – AutoTURN Diagrams
Attachment C – WSA Architectural Information
Attachment D – Stormwater Management Report
Attachment E – HSC Survey and Listening Session Summary

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigfridson, Boulos Co.
Kristen Dow, City of Portland
Steve Weatherhead, Winton Scott Architects
Nick Aceto, ALA

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ATTACHMENT A

City of Portland Homeless Services Center

Management Plan

I. Overview:

Description:

The City of Portland Homeless Services Center at 654 Riverside Street will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18.

This will continue the city's mission of providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. In partnership with area service providers, we provide services to our consumers with an emphasis on compassion, dignity, respect and the highest standard professional demeanor toward this mission.

In the calendar year 2019 (last full year pre-Covid) the City served nearly 1,700 unduplicated individuals providing over 71,000 bed nights.

The Oxford Street Shelter currently serves a diverse population and we intend to continue that at our Homeless Services Center. We serve homeless women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, as well as those struggling with substance use and mental health. The Homeless Services Center has the capacity to serve an entire community's needs, complementing the smaller specialized shelters in the city and enhancing their capacity through a robust referral process maximizing resources across our system. This provides the highest level of service by those most equipped to help. This Homeless Services Center is designed to be compatible with the latest thinking of service provision, as the hub in the hub and spoke model as detailed in the work of the Statewide Homeless Council.

History of Oxford Street Shelter:

The Oxford Street Shelter opened in December of 1989. At 50 beds, it was the largest adult shelter in the state of Maine. Beds increased to 62 four years later and again to 80 beds in 1996 after leasing the adjacent building due to an increase in homelessness. The City and shelter staff continued to step up and meet community needs as they increased, seeing a rise in census in 1998 and 1999 until reaching 154 beds in 2000. Need continued to increase and community overflows were opened at the Salvation Army and the Preble Street Resource Center. Realizing the limitations of our space on an operational level (not having enough beds, difficulties being spread over multiple floors, transitioning from dorm to day use, etc.) and at the client experience level (not having the dignity of sleeping in a bed, needing to move throughout the day to meet basic needs of food and shelter, etc.), City leadership started exploring the best way to improve our services and the lives of the people we serve. The process of this pursuit is outlined in **Exhibit 1**.

Impacts of COVID:

Prior to the COVID-19 Pandemic, our current facility at 203 Oxford Street was able to accommodate 154 individuals for overnight shelter. We utilized the Preble Street Resource Center to provide overnight accommodations for additional overflow space increasing capacity by 75 male beds. Our client's additionally utilized Preble Street's congregate soup kitchen for meal services.

At the onset of the pandemic, Oxford Street Shelter consulted with the CDC and reduced its maximum capacity to 75 beds based on their recommendations. Due to social distancing requirements causing the closure of our overflow space and meal facility, we opened a second 24 hour, socially distanced shelter. In addition, our staff began picking up meals three times a day from the Preble Street Soup kitchen and delivering them to our two facilities.

The pandemic has had a large influence on the design of the Homeless Services Center. The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.The footprint of the center has increased to allow for appropriate social distancing in areas where guests will be frequenting, including both the dining and sleeping areas. CDC space recommendations equate to 113 s.f. of floor area be allocated per person in sleeping areas. There is a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. There are 7' to 8' distances typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to afford some privacy and to provide a physical barrier between guests to further protect against COVID transmission. The CDC recommendations also include maintaining 6' distances between guests in eating areas. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

The CDC also provides guidance for HVAC systems to minimize transmission that include: maximization of outside air intake; use of HEPA level filters that are changed out at regular intervals; supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems; humidity control systems. Design staff will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

During the pandemic, our clients were grateful. While many of our community partners understandably closed programs or reduced hours, the City shelter remained open. Many of the spaces individuals had utilized for years were no longer available to them. At Oxford Street, many clients slept, connected with staff for their daily needs and ate their meals in metal folding chairs all in the same room. We feel strongly that clients deserve a better and more dignified space. We have seen that a more dignified space allows clients to feel more self-worth and motivation towards moving forward from temporary emergency shelter.

Lessons Learned:

Running two 24 hour facilities during the pandemic created challenges but also presented learning opportunities. Staff had been envisioning our new Homeless Services Center with a more dignified approach to shelter for some time, well before we began operating a temporary shelter at the Portland Expo.

At the time that we began utilizing the Expo, staff were amazed in the ways in which the open space could be used to create a more all-inclusive shelter: the layout of the Expo building with open site lines, the ability for clients to have more privacy and not need to line up outside, the room to have both day and night spaces set up without needing to be broken down for cleaning (thus shuffling clients around throughout the day), the capacity for providers to meet with their clients on-site, and the space for clients to store their belongings. This aligned with many of our goals for the Homeless Services Center.

Vision of a Homeless Services Center:

It is the goal of the City of Portland to open a new state-of-the-art, one-story, adult emergency shelter to replace the Oxford Street Shelter. The new shelter will be open 24-hours a day, 7-days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 2** for a more comprehensive list of services.

The City of Portland's shelter clients and valued staff deserve to live and work in a respectful and safe environment. We will no longer allow some of our most vulnerable community members to live in inadequate conditions and in locations where they are easily abused, taken advantage of, and judged for their perceived shortcomings.

The new location will be a one story building easily accessible to all. Our clients will be able to access the space 24-hours a day and will not need to leave with their belongings. They will have a large day space with an area for meal services including a kitchen where staff will serve meals. We will have indoor storage lockers, bathrooms, laundry services, and clients will be assigned to beds rather than mats on the floor. Sleeping areas will have beds where each individual will have a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The bed layout will provide increased ability to socially distance and will provide an increased sense of privacy, as beds will be set in quads.

Additionally, our new location will have a full service federally qualified health clinic, offering medical, mental health, substance use treatment, and dental services on-site. We will have small group rooms and offices for peer support and community providers to access, greatly improving the service delivery model and community collaboration.

Importantly, the design of the new facility has been informed not only by the multi-year planning process described elsewhere in this document, but by actual potential users of the facility. As part of the planning and design process, Amistad has conducted current client surveys regarding aspects of the new facility. Additionally, Amistad facilitated a design listening session with

unhoused peer groups, who had a chance to offer direct feedback to the developer and the design team in attendance. Further workshops will be held on detailed design (during the architectural design development phase) and on operations (during the construction phase). Amistad's work has been submitted under separate cover as part of the Planning Board application.

Housing Services:

The City is dedicated to providing housing services to all who access our facility. While the pandemic made housing access difficult, our established relationships with landlords continued to afford our clients options to secure housing. In the year of July 1, 2020 to July 1, 2021 the housing team successfully placed 103 individuals into housing. The housing team's extraordinary work is recognized by experts in the field; in 2017, the National Alliance to End Homelessness (NAEH) honored the Oxford Street Shelter for our work on the Long Term Stayers Initiative with their Pioneers in Innovation and Excellence award, highlighting that in "the program's first two years, 125 people – representing a combined 150 years of shelter stays – have been successfully housed."[1]

The Long Term Stayers (LTS) initiative started in April of 2015 when the City collaborated with local housing services providers to target their efforts with a by-name list of the most vulnerable and difficult to house individuals staying at the Oxford Street Shelter. At the time, the shelter had 44% of the state's long term stayers[2]. In Portland, long term stayers are defined as people staying over 180 cumulative days in shelters or outdoors within a 365-day period. This definition was created because HUD's Chronic Homelessness definition did not capture single adults who tend to bounce from shelter to shelter whose lengths of stay in any one shelter do not meet the HUD definition of chronically homeless. From April 2015 through June 2021, this initiative targeted 580 people identified as long term stayers and housed 345 of them. According to their HMIS data, this group collectively had more than 650 years of homelessness, and more than 200,000 total bed nights. There has been a 91.03% success rate in scattered site apartments due to the combination of rental subsidies and support services.

On-Site Services Provided by Community Partners:

An integral part of the design for the Homeless Services Center is a facility that allows for providers to be on-site with our clients. Throughout the planning process we have received great support and commitments from many of our community partners seeking to offer services to clients at the new Homeless Services Center location. (Please see **Exhibit 3** for a list of community partners.) Below are a selection of responses we received from providers describing their plans for outreach and service delivery at the new facility in no particular order:

Greater Portland Health

Through a harm reduction model and through trauma informed approach, we propose to provide primary medical care, behavioral health services, substance use services, infectious disease services, dental services, and outreach support.]The clinic will include two medical providers

[1] NAEH. (n.d.). *National Alliance to End Homelessness Honors Pioneers in Innovation and Excellence at Annual Awards Ceremony.* End Homelessness. https://endhomelessness.org/wp-content/uploads/2016/10/Awards-Ceremoney-for-distro-101017.pdf
[2] Community Housing of Maine. (2021, July). *Maine's Long Term Stayers Initiative History & Accomplishments* [PowerPoint presentation].

and two medical assistants along with a dental team consisting of a dentist, hygienist and two dental assistants. Additional staff will include a social worker, a psychiatric nurse practitioner, patient service representative, community health worker and a financial assistance counselor.

Preble Street

Preble Street is very excited about partnering with the City of Portland to support the centralized service model for the Homeless Services Center. Preble Street offers a variety of services that specifically target individuals experiencing homelessness, so having a robust involvement with the Homeless Services Center, the largest emergency shelter in Maine, would be a necessary and important component of their work.

Preble Street would actively seek to have an outreach presence at the new Homeless Services Center through various programs. Preble Street's Veteran Housing Services currently tracks all veterans that enter the emergency shelter system in Maine and would work collaboratively with HSC staff to identify and link homeless veterans with intensive housing-focused case management. Similarly, the Anti-trafficking Services (ATS) offered by Preble Street would serve as a valuable resource for any victims of human trafficking who present at the HSC. In conjunction with providing intensive outreach and case management to these individuals, the ATS team would be available to coordinate services and referrals with HSC staff and able to provide trainings as requested to increase staff's awareness of human trafficking.

Additionally, staff from Preble Street's Rapid-Rehousing Services (RRH) would outreach and engage eligible individuals at the HSC and coordinate services with HSC staff. In its first year of operation, the RRH team enrolled many individuals who regularly stayed at the Oxford Street Shelter and secured permanent housing for a high percentage of these individuals. Given these precedents, it is likely that the HSC would be an important referral source for Preble Street's ongoing RRH work. Along these lines, the Street Outreach Collaborative (SOC), Preble Street's mobile street outreach team which targets individuals experiencing unsheltered homelessness, would work specifically with the unsheltered community to problem-solve the barriers that may be preventing them from accessing the HSC and other emergency shelters. The SOC would also be able to help HSC staff support clients in maintaining their emergency shelter placement. In its first year of operation, SOC connected 158 individuals to emergency shelters in Portland.

In addition to these service specific outreach efforts, Preble Street Homeless Voices for Justice (HVJ) would also seek to have a presence at the HSC. HVJ currently does regular outreach at Oxford Street Shelter, which they would plan to continue at the new Homeless Services Center. This outreach is done to inform clients of campaigns, to share what HVJ is working on, to hear from clients about what needs are arising, and to build connections between HVJ Advocates and current shelter clients. Additionally, HVJ sees potential for future collaboration with the HSC in the areas of voter outreach and HVJ’s You Don’t Need a Home to Vote Campaign, including Candidates’ Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, HVJ also hopes to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in advocacy work.

As demonstrated, the clients at the HSC would be an important focus of outreach from a wide variety of Preble Street programs. In addition to this considerable outreach presence, Preble Street envisions a continuation of the close collaboration between the HSC and their emergency shelters (Joe Kreisler Teen Shelter, Florence House Women's Shelter, and the Wellness Shelter) to ensure that youth, vulnerable women, members of the unsheltered community, and other at-risk individuals are triaged and linked to other shelters, as necessary. This would occur because of on-the-ground coordination between HSC and Preble Street staff to help streamline emergency shelter bed management across both organizations and ensure that individual clients are matched to the most appropriate emergency shelter resource available. The Wellness Shelter, in particular, will be an integral part of the City's shelter work and recently an MOU was created between the City of Portland and Preble Street to formalize this: "The Preble Street Wellness Shelter works closely with the City of Portland Oxford Street Shelter to best serve individuals experiencing homelessness and plan effective overflow options. As a result of this partnership, including coordinated assessments and referrals to the Preble Street Wellness Shelter, the number of persons within the City who are unsheltered, unsafe, and become a concern for emergency services is greatly reduced."

Furthermore, Preble Street commits to continued collaboration with HSC staff and clients through Preble Street case management and advocacy programming including the H.O.U.S.E. (Homeless Opioid Users Service and Engagement) program, the Long-Term Stayers meetings, Maine Homeless Legal Aid Project, and needed clinical assessments provided by Preble Street LCSWs.

Homeless Voices for Justice

Homeless Voices for Justice's engagement with the new Homeless Services Center will mirror our current engagement at Oxford Street Shelter. Homeless Voices for Justice currently does regular outreach at Oxford Street Shelter, which we plan to continue at the new Homeless Services Center. This outreach is done to inform clients of our campaigns, to share what HVJ is working on, to hear from folks about what needs are arising, and to build connections between the Homeless Voices for Justice Program and Advocates and current shelter clients. Additionally, we see potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, we hope to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in our advocacy work.

Spurwink

Spurwink is excited to partner with the City of Portland's new Homeless Services Center (HSC). Currently Spurwink provides Behavioral Health Home, Opioid Health Home, and Assertive Community Treatment services to individuals staying at the Oxford Street Shelter. These services provide an integrated, multi-disciplinary team-based approach to care coordination, treatment, and support. Spurwink will continue to offer these services to clients at the new HSC.

During the pandemic, Spurwink offered emergency medication assisted treatment for opioid use disorder for quarantined clients, committed staff to daily outreach in Deering Oaks and at City

Hall during the summer of 2020, and recently committed staff to outreach related to TB testing. We hope to continue these types of innovative partnerships to help meet community needs.

Finally, the City is contracting with Spurwink to hire two Community Engagement Specialists. These staff will be dedicated to the new 22 Park Street housing first collaborative, but will also assist as needed with city-wide outreach and engagement efforts. Spurwink expects these staff members will have a heavy presence at the new HSC.

The HSC offers a terrific opportunity to streamline services for both clients and community providers. Spurwink is excited to support this initiative.

Through These Doors

Through These Doors is Cumberland County's domestic violence resource center, serving victims and survivors of abuse and anyone affected by abuse and other related issues such as stalking, dating abuse, elder abuse, and both human trafficking and sexual abuse in the context of intimate partner relationships. TTD has an important role in working within the City of Portland's array of services to homeless individuals. We know that domestic violence is a leading cause of homelessness, especially for women, and that homeless people are vulnerable to further abuse when they lack housing security. TTD's advocates are trained to provide holistic safety planning, advocacy, support, and resource sharing in the context of the homeless system.

In the City's planned homeless center, we envision embedding a full-time advocate (as funding permits) on-site to be easily accessible. TTD has a wide variety of other services including legal and court advocacy, assistance with legal practices such as protection from abuse orders, navigating the justice system, and engaging and working within the CPS system. Our advocate on-site within the City's planned homeless center will be a link to all other TTD services to provide seamless, consistent services, all free of charge to homeless individuals.

TTD's on-site advocate will also be a resource to City staff as they support homeless individuals dealing with current safety issues and/or long term impacts of violence. TTD advocates work within other systems in Cumberland County (including CPS, law enforcement, and the schools) and we are told that employees within each system appreciate having on-site consultation available.

Amistad

Amistad's contributions to the HSC's model of supports and services will reflect the unique, peer-to-peer role that the agency plays in the community. Amistad's front-line Peer Support Specialists are not social workers or case managers; they are people with life experiences that are relatable to those who may present as guests at the HSC. Peer Support Specialists engage with guests/clients in a manner that is relationship-based, that acknowledges the expertise of each individual within their own life experience, and that allows for each person in the relationship to respectfully challenge the other to recognize their personal opportunities for growth and change.

At the HSC, Amistad's certified Peer Support Specialists will be able to contribute by providing:

- One-to-one peer support with HSC guests. The support offered is relationship-based, goal-focused, and private, and will be provided on-site and by phone or video conference.
- Facilitation of peer support-based groups. Trained facilitators will provide support groups, with a curriculum that will rotate and evolve based on the current needs and interests of the HSC guests.
- Support for the establishment of the HSC's Utilizers Union, and services, in an ombudsman-like role, for HSC management and guests. Identified Peer Support Specialists will hold roles that support the establishment and ongoing functions of a Utilizer's Union at the HSC, and will provide ombudsman-like support between HSC guests and HSC management and staff regarding complaints, areas of tension, and prospective changes to HSC policies and practices.

The Opportunity Alliance

The Opportunity Alliance (TOA) is a dynamic, results-focused Community Action Agency for Cumberland County, which was founded in 1965. TOA provides 50 integrated community based and clinical programs serving more than 20,000 people annually throughout the state of Maine. With over 50 years of experience, TOA draws from a comprehensive set of programs which address issues such as mental health, substance use, homelessness, lack of basic needs, and access to community supports. Through an extensive array of services, TOA provides opportunities for individuals to stabilize fragile situations and then works with them to achieve self-sufficiency. TOA has strong working relationships with system wide partners and providers including The City of Portland.

TOA's Project for Assistance in Transition of Homelessness (PATH) program is the beginning of services for unsheltered individuals with serious mental health and struggling with substance use, in our state's continuum of care. The PATH team's outreach and engagement component allows these individuals to build trust with a provider. Currently, the PATH team works closely with the Oxford Street Shelter to support individuals to access the shelter.

PATH will continue our collaboration with the new center, by continuing to provide outreach case management services in the community and encourage and support individuals who are interested in accessing the center.

The new center will allow our collaboration to strengthen, as it provides meeting spaces for PATH to work alongside center staff to initiate and complete applications for long term housing and other mainstream services.

Milestone

I am writing to share Milestone Recovery's plan to support the operations of the City of Portland's Homeless Services Center by offering on-site support services. Those services will include the regular presence of our Homeless Outreach and Mobile Engagement (HOME) Team both on the campus and to assist in providing transportation. In addition to the HOME Team supporting the Service Center, we are willing and able to offer our expertise around

supporting people with substance use disorder (SUD) through sharing of resources and providing training.

We will continue engaging in coordinated and collaborative support for people that are unhoused and experiencing SUD. Milestone Recovery will also be able to offer group support and will explore offering treatment within the Service Center or engaging in facilitating access and transportation to community-based SUD treatment programming. Through collaboration with other community providers, we seek to support the needs of people who are unhoused through a holistic approach.

Shalom House

Shalom House will:

- Work with the Identified Individuals to provide assistance with housing, housing subsidies and to the extent permitted by funding, staffing, and all applicable state and federal guidelines, including program eligibility; and
- Communicate with the City and/or with the Identified Individuals any deficiencies in applications, issues with continuing required paperwork, and other issues that could jeopardize an Identified Individual's housing at the Homeless Services Center.

II. Staffing and Management Responsibilities

Staffing Roles:

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three managers there will be on-site coverage 6am-11pm, as well as 24/7 on-call rotation. Having round-the-clock coverage affords clients the opportunity to connect with a member of the management team whenever desired. This level of access fosters an environment responsive to the needs of our clients.

The Shelter Director is responsible for supervisory and administrative work managing homeless shelters, supervising shelter attendants, security staff, housing counselors, senior human service counselors and managers. This work typically involves the development, planning, promotion, coordination and administration of Division programs. The Program Manager of a City Shelter is directly responsible for the operations and housing programs of the shelter. This position will be directly involved in budget development & management, personnel supervision, and development and implementation of various policies. Regular assessment of program plans and accomplishments will be reviewed in conjunction with the Social Services Division Director. The Director supervises a staff of professional, administrative and support staff, both directly and through designated supervisors. The Shelter Director participates in all grant application processes, program planning, and service evaluations including shelter audits. This position is responsible for meeting program reporting requirements, monitoring outcome measures and expenditures, compliance with all applicable federal and state regulations. The Shelter Director represents Shelter programs in the community, serves as a member of relevant committees, task forces, etc. The Director serves as liaison with community groups and individuals and neighbors regarding homeless issues.

Additionally, the Director develops policies and procedures to support complex safety needs associated with homeless shelters.

The Assistant Director of Shelter Operations works a flexible schedule but primarily provides evening management coverage. The Assistant Director of Operations is an administrative management position responsible for oversight of overall shelter operations including compliance and ADA regulations, purchasing, human resources management, and ensuring overall consistency for shelter operations. This position assists the Shelter Director with compliance of policies, procedures and regulations. In concert with the Shelter Director, this position oversees safety guidelines for facilities. This role is responsible for hiring shelter attendants, security guards and shelter supervisors in consultation with the Shelter Director. The Assistant Director of Operations must have knowledge of local homeless resources, staff supervision, crisis management, experience working with a diverse population including chronically homeless, mentally ill, physically disabled and substance addicted populations.

The Assistant Director of Housing Services works a flexible schedule but primarily provides daytime coverage. This is an administrative/management position responsible for coordinating housing and support services and will provide direct supervision to the Housing Service's Team. This position will be responsible for implementing established shelter policies regarding housing for all clients. This individual will maintain relationships with service providers and landlords that will help benefit our clients. The Assistant Director of Housing Services is responsible for connecting shelter consumers to needed services, including but not limited to mental health, substance use services, and employment services. The Assistant Director of Housing Services must have experience with housing search and placement and a strong understanding of HUD best practices, the ability to communicate effectively and the ability to provide excellent customer service.

In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage. Our supervisors, or Senior Human Service Counselors, will work flexible hours providing both day and overnight coverage to include weekends. They will supervise program staff in the uninterrupted operations of the shelter and are part of the team that facilitates orientation of new program staff. This position assists in staff scheduling and performance evaluations. They will serve as liaisons between community groups and members of the public regarding program issues. They will respond to crises including medical or mental health emergencies, and physical altercations or threats of violence. Senior Human Service Counselors will also provide housing orientation and housing triage to new clients.

The HSC will be staffed 24/7 by our Shelter Attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to everyday operations and work a flexible schedule across 24 hours. They will assist new clients with orientation to the facility. Our shelter attendants must possess the experience and the ability to work with clients with mental health and substance use issues. Building on their experience, each Shelter Attendant receives training to provide the following knowledge, skills, and abilities: a working knowledge of shelter policies, procedures and best practices, as well as working knowledge of community resources. This equips shelter staff to support our clients and make the necessary referrals to our housing team, as well as referring to other community partners. With the new model, many referrals will occur on-site, including to the Federally Qualified Health Clinic.

The Homeless Services Center will have a team of dedicated Housing Counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. All of our Housing Counselors have experience working with the homeless population, housing, mental health, substance use, and community outreach. They have knowledge of the principles and practices of case management/casework. Additionally, they must have working knowledge of mental health, substance use issues and homelessness.

The Homeless Services Center offers housing services to all clients accessing the service center and will have housing staff on-site 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[3]

A key part of our housing team is the Housing Retention Specialists. They connect with clients as they transition from the shelter. In support of the housing-first model, these specialists wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, which can include connecting to community meals. Housing Retention Specialists also work to make appropriate, supportive referrals to medical care and case management services. Our Housing Retention Specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for public reporting. The Administrative Assistant aids management with review of data before grant submissions. This position ensures accurate filing of incoming client intakes and nightly paperwork in accordance with state regulations. They assist in ordering appropriate supplies for the HSC. This person also works with management on specialized tasks, giving great attention to detail and a high level of accuracy.

Our Facilities Team is an integral part of ensuring that the space is a safe, clean and inviting environment for clients to access and staff to work. We have facilities staff on-site from 6am-2am. Our Facilities Team responds to all maintenance emergencies and works with all maintenance vendors to ensure our building and grounds are operating at peak condition. Facilities staff duties include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance as necessary, routine exterior maintenance, including snow removal, and other tasks as required. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

[3] NAEH. (2016, April 16). *Housing First.* End Homelessness. https://endhomelessness.org/resource/housing-first/

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security Staff will have an office located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security Staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. Security Staff are trained to address conflicts that arise on property or grounds and will assist HSC staff and Emergency First Responders in securing an area during an emergency. Security Staff must have strong and effective communication skills, including strong active listening skills and speaking skills as they will be communicating with clients, other staff, first responders and neighbors. Security team members must have excellent customer service skills. Additionally, security staff must have the ability to remain calm during unusual occurrences, disturbances, or other stressful situations.

The management team will meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For a full list please see **Exhibit 4**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Using this client-centered model, staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the Homeless Services Center. If guests need shelter after this program's hours the Homeless Services Center phone number and the afterhours General Assistance number will be prominently displayed at the Prevention and Diversion Center, our contact information will be available through 2-1-1 and community outreach programs will have access to our 24-hour line for after hour admissions. Should a client call for assistance after hours, Homeless Services Center staff will provide transportation from the Prevention and Diversion Program to the Homeless Services Center.

The City of Portland does not turn anyone in an emergency of homelessness away. Clients accessing the shelter complete a housing-focused, strengths-based intake assessment, are assessed for symptoms of infectious disease (at which point appropriate medical referrals would be made) and after completion of an intake are assigned a bed.

The Homeless Services Center will continue the City's current model of providing 24 hour continuous services to our clients. Unlike the City's current shelter, clients will have ample room to move throughout the facility, allowing for the space to remain clean, safe and sanitized while not restricting individuals to small areas. Following the lessons learned from the Expo shelter,

City staff feel it is best practice to ensure that we have an open facility with clear site lines where clients can have access to services on-site. Clients will have the ability to utilize laundry facilities and shower facilities as needed. On-site meals will be available three times a day, understanding that many of our clients are busy seeking housing or are employed and may miss mealtimes, staff will ensure clients have access to food outside of those meals. Mail services will be provided on-site to ensure their ability to receive important documents that are imperative to housing: state identification, birth certificates, etc. In addition, clients will have access to their assigned beds throughout the day.

It is important to the City that all clients entering the Homeless Services Center feel comfortable in their sleeping areas. HUD's Equal Access Rule protects the rights of transgender and gender non-conforming people by mandating that "access to shelter and housing must conform with, and adhere to, an individual's self-expressed gender identity." [4]. Homeless Services Center staff ask individuals to self-select their dormitory based on their self-identified gender. For individuals who do not feel safe or comfortable sleeping in the men's or the women's dormitories, the City will provide separate sleeping space. Self-identified trans, nonbinary and gender-diverse clients are informed that they can request this accommodation. In addition, the Homeless Services Center will include nine restrooms for clients and three in staff areas which are barrier free, fully accessible and designated gender neutral in addition to the larger restroom facilities.

The new facility will also have an expansive outdoor space-allowing clients to safely gather in a number of private areas. Clients will have access to an enclosed courtyard just off the general dayspace- part of this courtyard will have a covered pavilion for eating space, meeting with community providers and housing workers or social gathering. Additionally, the private courtyard will have exercise facilities and raised garden beds so that clients can participate in growing food for the meals. A green space with a raised platform area will be available for client use. In addition to the raised garden beds, a healing garden will be located on the other side of the facility. This will be a space for quiet reflection, small groups or meetings with community providers and housing staff.

The programmed outdoor spaces detailed above will be fenced. This will be to maintain site control and provide a higher level of protection to those seeking emergency shelter. We will work to ensure this fencing design fits in with the trauma informed design of the property. We will also continue to seek feedback from our neighbors as, and if, operational issues relating to fencing arise.

The security staff will be responsible for monitoring entry and exit into the building, as well as the perimeter entrance and exits via video surveillance. This will leave our front desk staff available to respond to the needs of clients and service providers. The access points to the building include:

- *The primary building entry off Riverside Street*- The HSC's main entryway will be off the well-lit and inviting walking path leading from Riverside Street to the HSC. The main doorway will be a dual door system monitored by security staff. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with

[4] NAEH. (n.d.). *Trans and Gender Non-Conforming Homelessness*. End Homelessness. https://endhomelessness.org/trans-and-gender-non-conforming-homelessness/

shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on-site.

- *Controlled External Entrance to locker facilities*- Located in tandem to the primary entrance, clients may first enter the external locker facility. There will be enough on-site locker storage for each client accessing the Homeless Service Center. Clients will have the ability to access their own storage space as needed. This space will exit into the dual door vestibule.
- *Controlled Staff entrance and exit*- These entrances will lead to staff administrative and housing offices, space for community providers to hold confidential meetings with clients, as well as conference room space for on-site lease signings or small trainings.
- *Clinic entrance*- The clinic will be a space that is open to the general community. Clinic staff will have the ability to admit any patient they may be treating.
- *Controlled exit from the dayspace to the private courtyard with covered eating space, controlled exit from the male dormitory to the community garden, controlled exit from the female dormitory to the community garden*- These three exits will be accessible only to individuals who are already accessing the facility and will lead to fenced in areas that provide privacy, confidentiality and safety our clients.
- *Controlled fire exits off dormitories and client bathrooms*- a mandatory number of fire exits that meet the necessary fire code requirements will be located along the rear of the building. These will be accessed in emergency situations and will be accessible for entry to those who have already accessed this facility when needed.
- *Loading and service area*- the secure loading and service area off of the kitchen and dining area will be utilized for food and donation deliveries, as well as pick up of dirty linens and the drop off of clean linens through the City's partnership with the Barron Center. We anticipate food deliveries to occur three times daily, in line with our three meals a day. We also anticipate a daily morning laundry pick up and drop off and will be receiving weekly deliveries for service center supplies.

In accordance with the Americans with Disabilities Act and Chapter 5 of the City of Portland Code of Ordinances, service animals are always welcome and are required to remain on a leash or harness at all times. Pets and other animals, however, are not allowed. We recognize the positive impact and importance companion animals have in the lives of the clients who present with them as well as the barrier to entering shelter their interdiction presents. To mitigate this barrier and improve the experience and housing success of our clients, whenever possible we work with community partners to attempt to find their animals alternative accommodations for the duration of their stay in shelter. This includes collaborating with the animal control officer, leveraging their relationships with local programs and rehousing individuals with their animals as soon as possible.

IV. Transportation

The Homeless Services Center will employ a Transportation Demand Management (TDM) approach to handle client transportation needs. Because most clients are not anticipated to drive, TDM is important beyond its traditional goals of simply reducing vehicle trips. The facility's TDM plan is included as **Exhibit 5**. Some additional points and summary information are below.

The Homeless Services Center will include a City operated 15 passenger van as a shuttle service to clients. The shuttle will operate with regular scheduled trips throughout the day to stop at service centers for appointments as well as get back to the facility, and will include afterhours operation on an as needed basis. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize.

As a safety policy, staff operate the shuttle or any City vehicle, in pairs while transporting clients. This allows for the driver to remain fully focused on the safe operation of the vehicle should the passenger staff need to assess a client in medical distress or help to de-escalate any situation in the vehicle. It also allows the passenger to safely assess the vehicle inhabitants and engage with them so that nothing rises to this level of need. For individuals departing directly from the Homeless Services Center our staff will have developed relationships with these clients. They will be aware of whether these individuals are appropriate to transport via the shuttle or may require an alternate form of transport at that time. They will also be able to assess whether some clients may have previous conflicts that might indicate they should be transported separately. For individuals coming from the Prevention and Diversion Center, a safety assessment will be done with all individuals prior to transporting them. Any staff person driving the 15 passenger van must receive training from the City's Safety and Training Officer that includes safe driving practices specific to vans. As a Covid precaution the van and other city vehicles have partitions that have been installed for safety.

In addition to the shuttle van, the Homeless Services Center will continue the long-standing practices of Oxford Street by using taxi vouchers, Metro, and our current sport utility vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the Homeless Services Center will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The Homeless Services Center premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Best practice dictates clear sight lines which will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

Cameras will be mounted externally for easy surveillance of the perimeter. Cameras are also mounted in internal common spaces not to include private areas, such as sleeping quarters and restrooms. Camera monitors will be visible from the security office, which will be staffed. Our security staff will review live feed of the cameras and we will also have access to recorded data as needed. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations. This will be reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire Homeless Services Center population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. In addition, all workstations are equipped with panic alarms for any potential emergency. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The Homeless Services Center presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed design impacts client success as well as the neighboring community. This Homeless Services Center was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 7**). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding being a good neighbor at intake. Additionally, we have a Neighborhood Engagement Strategy (please see **Exhibit 8**) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect the Homeless Services Center surroundings, the neighborhood and any neighborhood needs or concerns.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As mentioned above, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. The Homeless Services Center staff will provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. Concerned neighbors are invited to call to discuss any potential issue or concern related to the Homeless Services Center. The Homeless Services Center will provide a representative to 75% of regularly scheduled monthly Neighborhood Association meetings. All neighborhood complaints will be shared promptly amongst the management and supervisory team to best plan to remediate any issues. While neighborhood complaints could involve a discussion and intervention with a small group or single client of the Homeless Services Center, occasionally larger interventions will include our community partners listed in this management plan. Staff may also request assistance from our first responders in the Police Department, MEDCU and Fire Department. The Homeless Services Center staff is happy to collaborate with all partners and neighbors for a sense of positive community, overall wellbeing and safety.

The City will also create an advisory group consisting of representatives from the neighborhood, area businesses, Portland Police Department , Homeless Service Center staff, Homeless Service Center clients, and an elected city official.[5] For the first year, this group will meet monthly and will be chaired by a representative of the City's executive staff. The group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts and/or improve client services. Upon agreement of the majority of group members, the advisory panel will shift to quarterly meetings in year two.

IX. Monitoring:

The Homeless Services Center management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bed-nights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay

[5] Sauschuck, M. J. (2018, September 8). *Security Planning and Procedures for Proposed Homeless Service Center.* Portland Maine. https://www.portlandmaine.gov/DocumentCenter/View/22367/HSC-Memo

(vii) Number of housing placements

(viii) Record of neighborhood concerns and resolutions

(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses

(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously

(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes

(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee, and various housing related boards and committees of the City, such as, but not limited to, the Rent Board and the Housing and Economic Development Committee.

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly.

Exhibit 1: Overview of the Process to Replace the Oxford Street Shelter

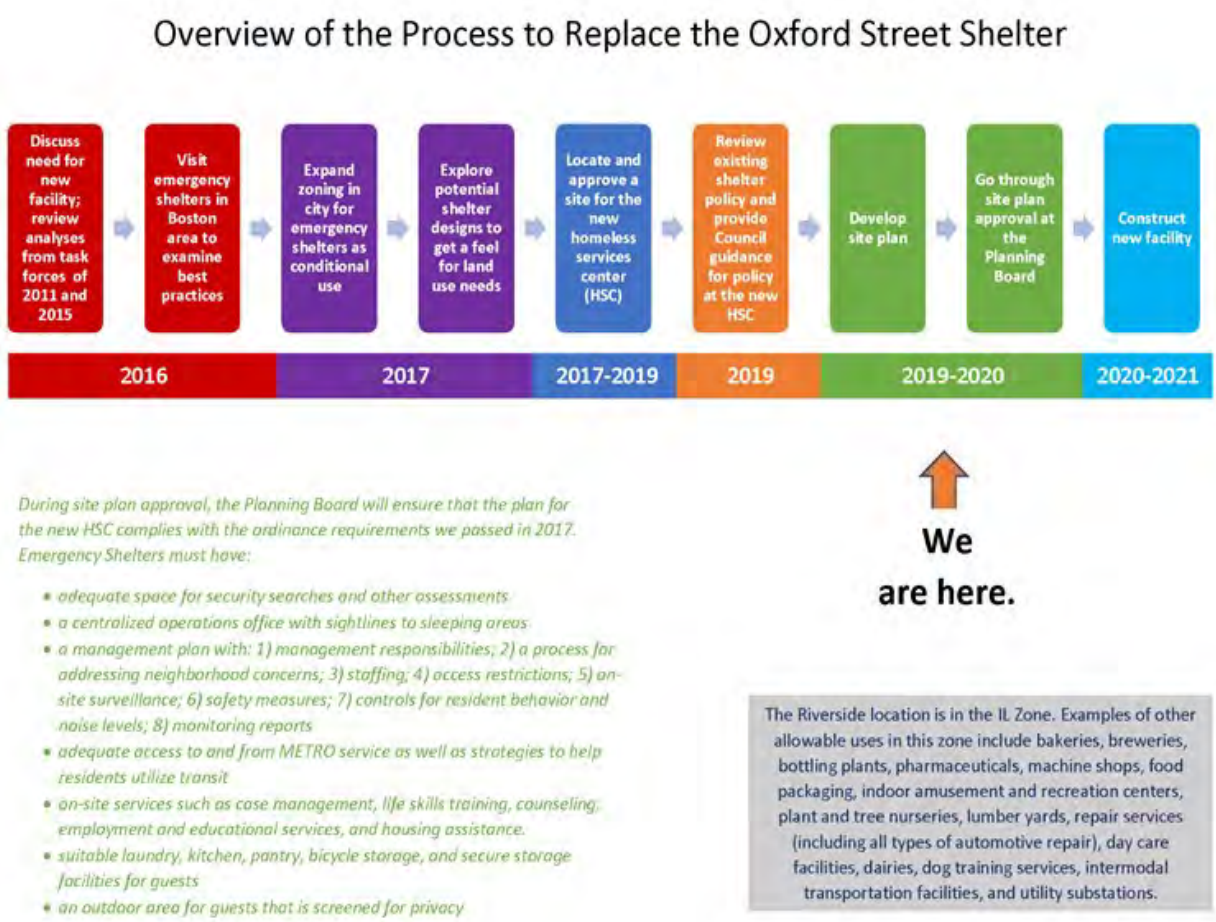


Exhibit 2: Increased Services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation:
  - Metro Route 2
  - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Mail services
- Meals
- On-site health care clinic:
  - Primary Medical care
  - Infectious Disease Services
  - Mental health care
  - Substance use treatment
  - Dentist services
- Peer services
  - Peer support groups

Exhibit 3: Service Providers Planning to Offer Services or Outreach On-Site6

- Amistad
- Catholic Charities Maine
  - Refugee and Immigration Services (RIS)
- City of Portland
  - Social Services
    - General Assistance
    - Helping Individuals Regain Employment (HIRE)
  - The Public Health Division
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
  - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
  - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[6] This list appears in alphanumeric order.

Exhibit 4: Staff Training and Professional Development7

- **Bloodborne Pathogens Training**
  OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure

  Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting HIV, Hepatitis C, or other bloodborne diseases

- **Cardiac Science: AED**
  The Automated External Defibrillator (AED) training teaches basic AED rescue skills and correct defibrillation procedures.

- **Customer Service Training**
  Through this customized training, you will have the opportunity to explore the City's vision, goals, and values and how they relate to a culture of excellent customer service, learn about our new customer service vision, renew your commitment to customer service, learn best practices, reinforce the structures already in place that support great customer service, and identify the things you need to improve customer service.

- **Diversity and Inclusion Workshop**
  The City of Portland is committed to an inclusive workplace in which differences are respected and valued. Portland's demographics are rapidly changing and, by extension, so are our employee, visitor, and customer populations. During this interactive, two-hour workshop, participants will increase their awareness of personal biases - both explicit and implicit - and how they impact the way in which we navigate the world; explore practical, proactive strategies for responding to acts of bias and prejudice; and examine strategies to promote respect for diversity, equity and inclusion within the City.

  https://implicit.harvard.edu/implicit/takeatest.html

  Implicit Association Tests are online tests designed to explore our hidden or implicit biases, aimed to detect the strength of a person's automatic associations between concepts(e.g. women, homosexuals) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). You will be asked to sort pictures and words into groups as fast as you can. IATs evaluate automatic associations on many different topics such as race, religion, gender, sexual orientation, and weight

- **Emergency Action Plan Training**
  Helps train employees on what to do in an emergency whether it's a fire, flood or an active shooter. The City has a predetermined emergency action plan to assist employees in knowing what to do in these different emergency situations. The training goes through the plan.

- **Equal Access to Housing Training by GLAD**
  This training covers ways you can create a more welcoming and safer environment for LGBTQ persons. Learn the basic concepts and expectations of the HUD Equal Access to Housing rules and what rights are covered under this rule for individuals regardless of their sexual orientation and in

[7] This list appears in alphanumeric order.

accordance with the individual's gender identity, and in a manner that affords equal access to the individual's family.

- **First Aid and CPR**
  Providing basic first aid, CPR and knowledge to assist guests until EMS arrives.

- **General Assistance Training**
  An overview of the General Assistance Program and the nuances that impact securing housing for individuals experiencing homelessness.

- **Homeless Management Information Systems trainings**
  - Maine Housing Emergency Shelter and Housing Assistance Program
  - Stability Through Employment Program
  - Rent Smart
  - Data & Security

- **Housing Training for Supervisors**
  An ongoing overview of housing assistance, voucher programs, general assistance, community resources and ways to keep conversations in shelter housing and solutions focused.

- **Human Trafficking in Maine: Identification and Response by Preble Street and Maine Coalition Against Sexual Assault**
  Understand the problem of human trafficking. Learn how to identify survivors of human trafficking. Learn how to meet the needs of people who have been trafficked.

- **In Their Shoes Refugee Training**
  This is an interactive simulation provided by Catholic Charities Refugee and Immigration Services. The program is designed to help participants walk in the shoes of a refugee and come to understand the tough decisions faced by someone fleeing for safety.

- **Introduction to Cultural Competency**
  This interactive class explores the various cultures that we inhabit and steps that we can take to become more culturally competent. Cultural competency - the ability to understand, communicate with, and effectively interact with people across various cultures- is a lifelong journey and a skill essential to succeeding in today's culturally-diverse work environment.

- **Language Access Training**
  In this one-hour training, we cover how to identify a Limited English Proficiency individual; the distinctions between interpretation and translation; how to access and best utilize an interpreter; and translation of departments' vital documents. City staff who routinely interact with members of the public are expected to attend.

- **Mental Health First Aid Training Conducted by NAMI Maine**
  Mental Health First Aid is a national best-practice, evidenced-based certification course that is 8 hours in length and leads to a 3 year certification issued by the National Council on Behavioral Health.

- **Military Culture 101**
  A program designed to educate service providers on Military culture and resources Veterans can access.

- **Narcan/Overdose Reversal/Response Training**
  The Public Health Division provides best practice training on recognizing and responding to an overdose, on an as-needed basis, at the request of shelter staff. This training includes: risk factors, prevention strategies, signs and symptoms, and appropriate response, including calling 911 and administering Narcan. In addition to training, the Public Health Division provides Narcan at no cost to the Shelter.

- **National Alliance to End Homelessness Conference & Capitol Hill Day**
  The 2019 National Conference on Ending Homelessness and Capitol Hill Day was the nation's largest convening of service providers, leaders, advocates, and consumers working to end homelessness in the United States. The July conference featured dedicated tracks focused on families and youth experiencing homelessness, updated content on chronic homelessness, veterans, single adults, and other populations. Capitol Hill Day offered an opportunity to speak with members of Congress and their staff and advocate directly for the resources that will benefit homeless families, individuals and youth in your districts.[8]

- **New Employee Orientation**
  For all newly hired employees, a New Employee Safety Orientation online training is required to be completed by new hires through our Maine Municipal Association website, NEOgov. This training covers the following safety issues: Accidents and Emergencies, Fire Safety, Preventing Slips, Trips and Falls, Back Safety, Ergonomics for the Office, Personal Protective Equipment, Hazard Communication, Bloodborne Pathogens, Defensive Driving and Equipment Safety.
  In addition, the following City policies are reviewed with new hires within the first 4-6 weeks of their employment: Equal Employment Opportunity and Nondiscrimination Policy, Policy against Harassment, Workplace Conduct Policy, Drug Free Workplace Policy, Work Related Injury Management, Technology Use Policy, and our Communication and Social Media Policy. New hires are provided an overview of policies via a PowerPoint presentation either in person or at the employee's discretion (new protocol during response to COVID pandemic).

- **New Per Diem Training**
  Conducted with all new employees, this training is an overview that covers a broad range of topics including customer service, review of shelter policies and safety, emergency response (how to call for assistance in an emergency, how to communicate to dispatch, use of your two way radio), overdose reversal and use of naloxone, scenario training (which can include how to de-escalate a client in distress, use of progressive discipline, etc.).

- **Rapid Resolution Housing Training**
  Rapid resolution is a client-centered, problem-solving approach designed to meet the housing stability needs of most persons seeking homeless assistance. Client-centered—with a focus on the client's agency in resolving his or her own housing crisis; Flexible–all available housing options are creatively explored through a problem solving conversation; and Immediate–providers recognize a critical window of opportunity to act swiftly to resolve the housing crisis.

- **Reasonable Suspicion for Supervisors**

[8] "Conferences" *National Alliance to End Homelessness*
https://endhomelessness.org/events/conferences/

This training is to assist when supervisors have evidence or reasonable cause to suspect an employee of drug use. This is needed for the supervisor to know how to follow proper protocols and documentation.

- **Serious Accident Reporting**
  This training defines “serious physical injuries” and the steps to take when reporting to the Maine Department of Labor is necessary as outlined in the City policy “City of Portland Mandatory Reporting Requirements for Employee On-the-Job Death

  or Serious Injury Standard Operating Procedure.”
- **Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health**
  Trauma-informed care recognizes the physical, mental, behavioral, social and emotional impacts of the experience. This training covers core principles and explains Adverse childhood experiences (ACEs) which are stressful or traumatic experiences that happen during the first 18 years of life.

- **Understanding and Supporting LGBTQ Individuals**
  Provides attendees the opportunity to learn more about what it means to be part of the LGBTQ community with special attention given to understanding what it means to be transgender, nonbinary, and gender non-conforming. The presentation will address ways in which City of Portland staff can be more inclusive in their day-to-day work by using inclusive language and terminology, navigating names and pronouns, processing forms and documents, and implementing smart practices to use to make your workspace more inclusive of everyone.

- **Verbal Judo**
  Provides staff with de-escalation techniques through verbal communication to avoid further conflict with individuals including redirection strategies, ultimately decreasing resistance. The goal of the course is to enhance professionalism, decrease community complaints, decrease liability, lessen stress and increase morale for guests employees.

- **Violence Against Women Act training by Through These Doors**
  Provides an overview of the Maine Coalition to End Domestic Violence, the individual resource centers serving Maine and the services offered, presents *Violence Against Women Act overview: “What is VAWA? Who is protected? What programs are impacted?”* and reviews housing protections for survivors and the responsibilities for housing providers.

- **Workers Compensation for Supervisors**
  Explains the procedure for referral to partner urgent care providers and reporting requirements when staff are injured while performing their duties.

Exhibit 5: Transportation Demand Management Plan

Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street
Portland, Maine
August 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[1]
- Sight lines in each direction at driveway exceed 500 feet[2]
- Driveway separation – 176 feet3

[1] MDOT AADT information – Riverside St N/O Warren Avenue

[2] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.

[3] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.

- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 to 16892) yields 14 crashes and Critical Rate Factor of 0.784. Riverside Street at the site driveway is not a High Accident Location.
- Nearby Peak hour traffic volumes are summarized as follows:[5]

TABLE 1 Trip Generation				
Site	**Traffic Count AM Peak Hour (6:30 – 7:30 am)**	**Traffic Count PM Peak hour (3:45 – 4:45 pm)**	**ITE[6] AM Peak Trips**	**ITE PM Peak Trips**
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1229**	**1652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 5' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;

[4] From MDOT for period 01/01/2018 to 12/31/2020

[5] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)

[6] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals.

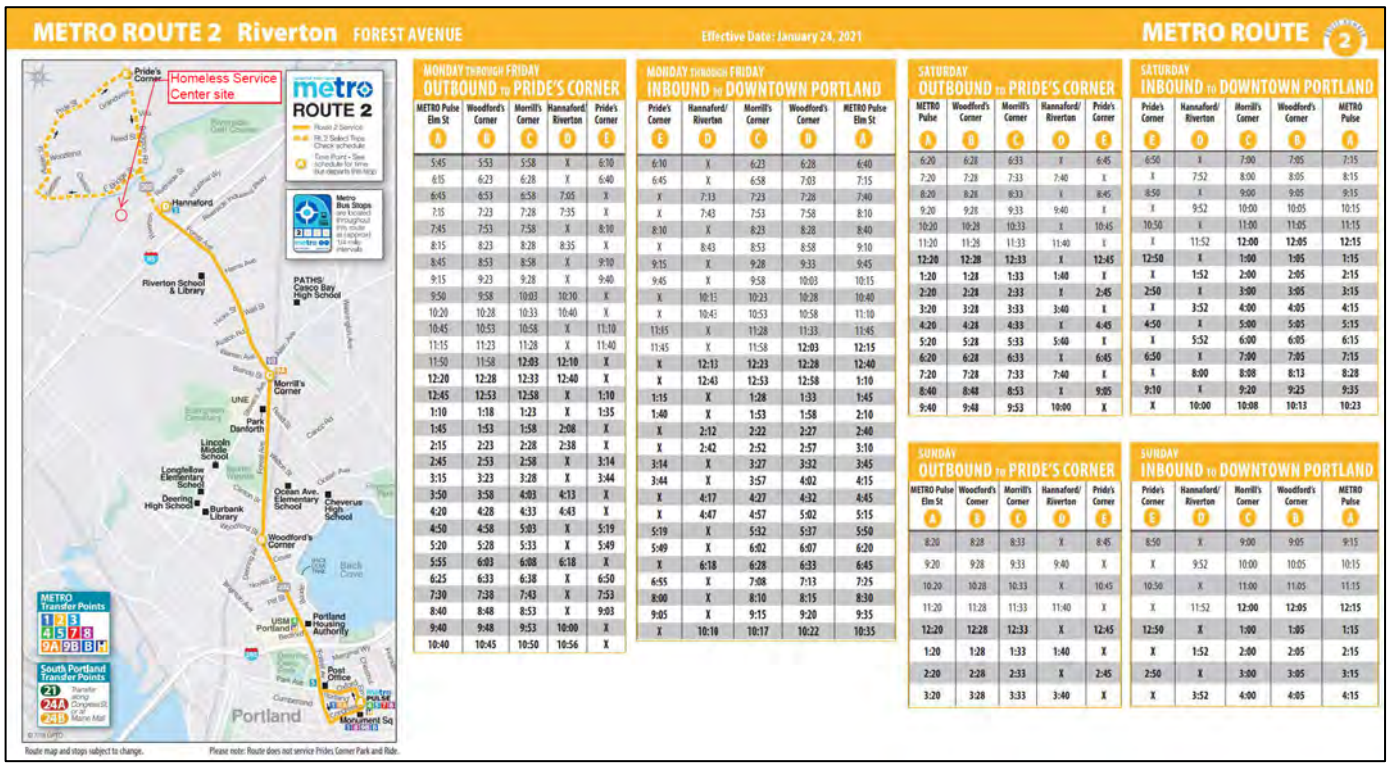


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

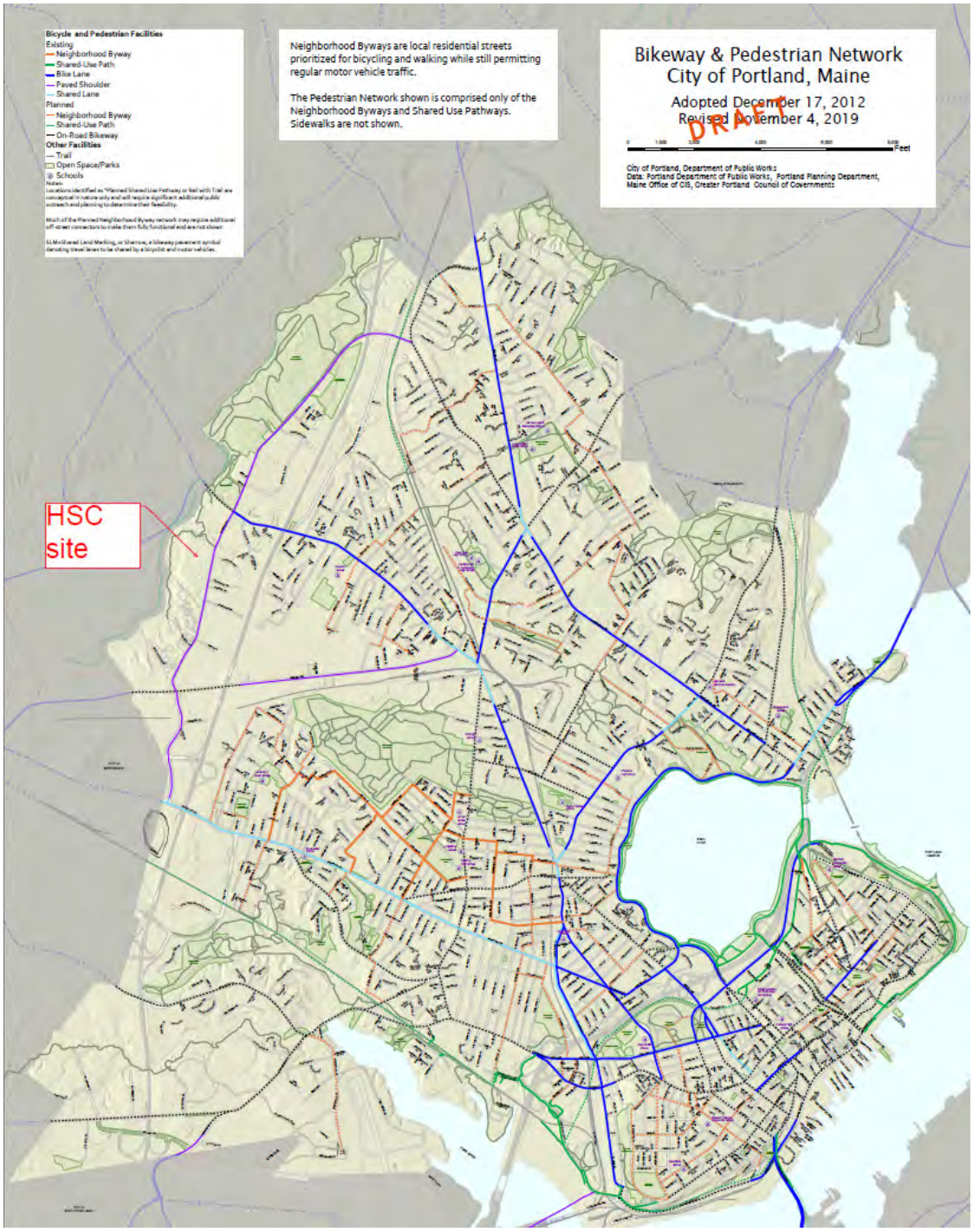


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hr staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS

vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN			
Agency/Position	**Number of Anticipated Vehicles**	**Time-in**	**Time-out**
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.3 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Wayfinding signage will be provided at bus stops along Forest Avenue to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; and
- Implement a ride share registry to match employees interested in ride share.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site.

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

Exhibit 6: Resident Contract

GUEST CONTRACT

The Homeless Services Center is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our facility. Any violations of our safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the building or on the premises is strictly prohibited and could be grounds for restriction from access.
- **Weapons of any kind are not allowed in the building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into the building or waiting areas. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access.**
- **Use of inappropriate speech can result in restriction of access. The City has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The City has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction to access.**
- Sexual activity of any kind is not permitted in the facility or on the grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the facility and on the grounds. This includes wearing shoes while moving around the facility to protect from injury.
- Out of respect for others, cell phones must be turned off or silenced after 8pm in the dorms. Guest phones are available for use. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**
- Electronic devices that do not emit light, are used with headphones and do not disturb other shelter guests may be permitted at the discretion of the supervisor on duty.
- The lights out in the dorms will be 8:30pm.
- Good personal hygiene is a priority. Showers are available with 24 hour access, personal hygiene items are available upon request from staff at the front desk.
- Guest laundry services are available, please see staff for any assistance needed.
- Clean blankets, towels and other linens will be provided.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- Lockers are available on-site. Please see a staff member to sign up. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- The City is not responsible for lost and stolen belongings. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time, please notify staff and we will assist you in contacting the appropriate resource.
- Service Center ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests are expected to attend housing orientation the day following their intake to the service center for important referrals to services. If you have questions or concerns, please ask a supervisor.
- Please respect our neighbors and neighborhood at all times.

Agreements

- *I hereby accept shelter at the City of Portland Social Services Division Homeless Services Center and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.*
- *I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.*
- *I authorize the Social Services Division Homeless Service Center to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.*
- *I understand that Service Center Staff and/or management may restrict my access to the facility and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff and relating to staff at the Service Center.*

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 7: Reasonable Rules

HOMELESS SERVICES CENTER POLICY – REASONABLE RULES

The **Homeless Services Center (HSC)** is a City run facility for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in the City run facility. In addition, the City reserves the right to refuse admission to the HSC to any individual whose presence is determined by the City to pose a danger to other individuals residing in the HSC or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in the HSC facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to the facilities or property or neighborhood
- Smoking or vaping is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 8: Neighborhood Engagement Strategy

Homeless Services Center
Neighborhood Engagement Strategy

Staff of the **Homeless Services Center** are committed to maintaining a positive relationship with our surrounding neighbors through engagement and collaboration.

Staff build and maintain good relationships with both clients and neighbors and can assist in neighborhood issues as they arise. We work to ensure client behavior expectations are clear through regular Service Center meetings with clients. A recurring topic at these meetings will include having a positive impact on our neighboring community.

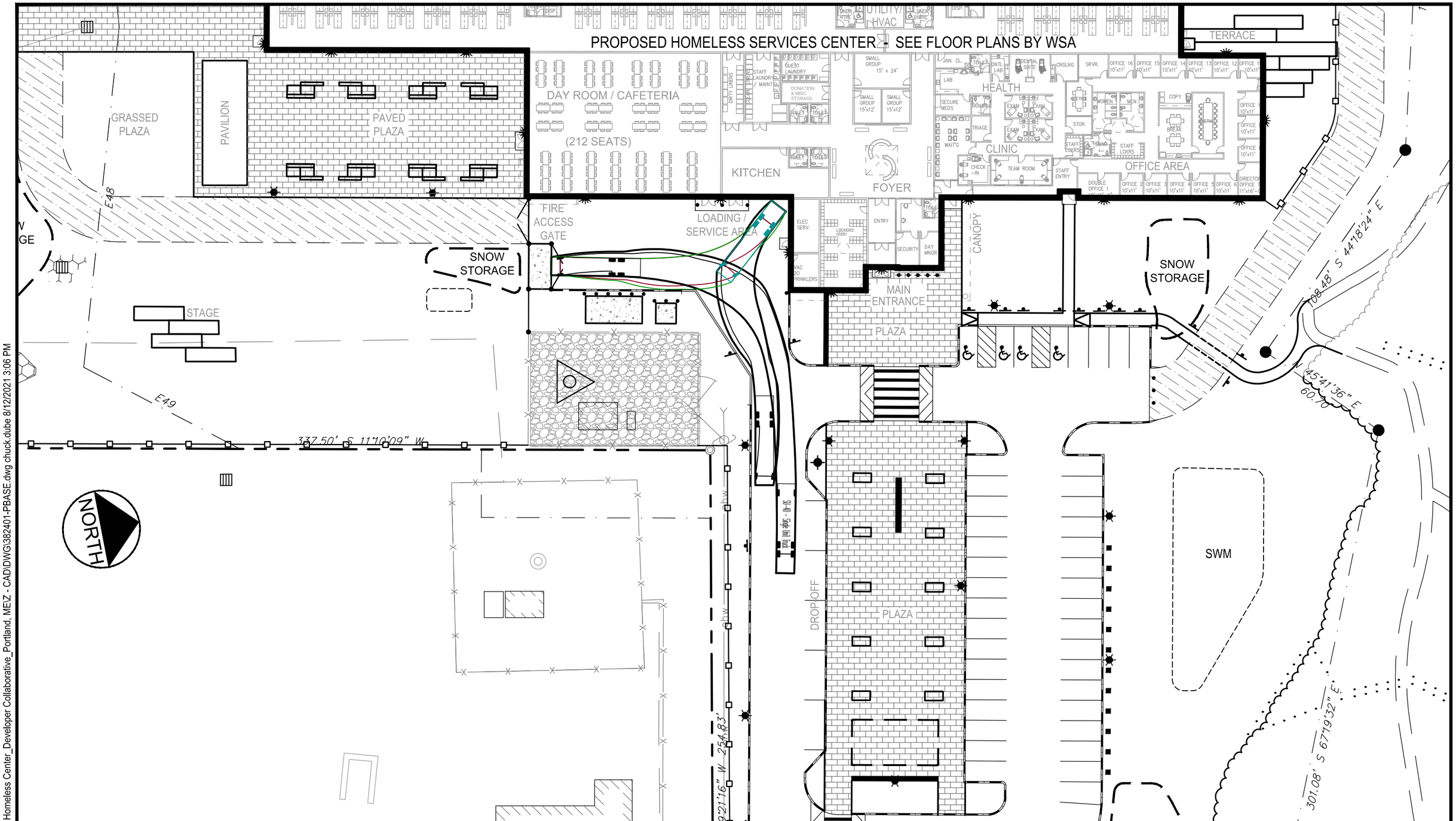
The HSC runs a 24-hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving guests along from a neighbor's front steps, etc. and can decrease police calls for service.

Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

The HSC offers ample locker storage to allow clients a place to leave their belongings while going on housing showings, job interviews, etc.

A representative of the HSC will attend 75% of the monthly Riverton Community Association meetings.

ATTACHMENT B



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www.gorrillpalmer.com
207.772.2515

DRAWN:	CDD	DATE:	AUG. 11, 2021
DESIGNED:	SRB	SCALE:	1" = 40'
CHECKED:	SRB	JOB NO.	3824.01
FILE NAME:	382401-XBASE		

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET, PORTLAND, MAINE

GARBAGE TRUCK ACCESS / TURNING MOVEMENTS

FIGURE
1

EASEMENT

PROPOSED SUBURBAN PROPANE LOT 4–1

STORAGE 4,000 SF

OFFICE 7,300 SF

GARAGE 1,100 SF

OFFICE 400 SF

RAISED GARDENS / SOCIAL SPACES

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION / OUTDOOR SEATING

PAVEMENT / FLEX SPACE

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 80 Beds

UTILITY / HVAC

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH CLINIC

OFFICE AREA

SECURE ACCESS GATE

LOADING / SERVICE AREA

CANOPY

MAIN ENTRANCE

PLAZA

PLAZA

DROP-OFF

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8" REBAR, BENT

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

#1 PROPOSED SIDEWALK EASEMENT

PROPOSED LOT 4–1 PROPOSED 60' WIDE RIGHT-OF-WAY

60'

EXISTING SIDEWALK EASEMENT TO CITY OF PORTLAND

N 22°18'27" W 23.08'

N 78°49'51" W 5.33'

S 78°49'51" E 6.98'

N 47°34'01" E

N 11°10'09" W 19.45'

N 11°10'09" W 7.23'

RIVERSIDE STREET

PROPOSED SIDEWALK EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

VERTICAL GRANITE CURB

SLIPFORM CONCRETE CURB

SIGN LEGEND

R1–1 30"x 30" [A] — STOP

R7–8 12"x 18" [B] — RESERVED PARKING

R7–8 12"x 18" [C] — RESERVED PARKING VAN ACCESSIBLE

R8–3a 24"x 30" [D] — NO PARKING

R5–11 30"x 24" [E] — AUTHORIZED VEHICLES ONLY

– [F] — VISITOR PARKING

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

50 0 25 50 100

1 inch = 50 ft.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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ATTACHMENT C

Winton Scott Architects

City of Portland Homeless Services Center
Response to Design Review Comments received from Planning staff on 7/7/21
& Planning Board Workshop #1

8/9/21

Design Team Response:

The design review comments provided by city planning staff focus on the "Two-Family, Special Needs Independent Living Units, Multiple Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards" (Section (d) of the Design Manual. Additional design comments were provided at the Planning Board Workshop.

Standard 1- Exterior Design

Staff comments noted that the building as designed "includes variation in the roofline and a mix of fenestration, materials, awnings, canopies to provide variation and visual interest". Additional information on proposed materials was requested and it was suggested that windows be added to the front facade of the locker room adjacent to the main entrance.

Planning Board design comments included:

-Building could be more inviting
-Building looks too institutional-like a school
-What are plans for roof top equipment?

Response:

Amended drawings were presented at the workshop that provided material selections and three windows were added to the front locker room facade. After consideration of comments received in the workshop, the exterior design and materials selections have been further refined, and new, more detailed renderings and elevations have been developed.

The red brick proposed at the office wing and the vertical metal siding at the cafeteria have been replaced with a deep warm-toned metal plank panel system with horizontal orientation and staggered joints. The red brick was seen as contributing to the institutional character of the building and the new siding selection is seen as more contemporary and visually interesting.

There is also a more logical application of materials with the front more public wing being composed of one material and the rear, taller dormitory wing being composed with two types of metal siding. The wings are then punctuated by the main entrance and associated gathering space with its higher sloped roof and gray brick cladding.

As noted in staff comments, the design includes a wide variety of fenestration sizes and types to provide visual interest and clues to the functions within. The dormitories and office areas utilize

smaller vertically oriented windows that have a residential scale and the upper portion of the dormitories include large clerestory with large east facing Kalwal translucent panels to bring morning daylight into the sleeping areas. Clerestory windows and a skylight also punctuate the main gathering space, flooding the space with natural light.

Another design refinement has been to add a covered porch element off of the cafeteria/dayroom. This is seen as a transitional space between the interior and the exterior recreational spaces offering a place to sit and gather outside that provides shelter from southerly sun and rain.

Regarding Planning Board comments about roof top equipment. New renderings and a roof plan have been provided showing a proposed area for rooftop HVAC equipment at the center of the building over the bathrooms that provides 5' high screening of metal siding that matches the siding at the upper portions of the building.

Standard 2- Relationship to the Street

Staff comments indicate that this standard has been met.

Standard 3- Open Spaces

Staff comments requested consideration of more deliberate accommodation of resident circulation to outdoor spaces such as the healing garden. It was also noted that landscape plans do not show what is fenced vs. open or specific designs of each landscape amenity.

Response:

Additional entrances have been added at the men's and women's dormitories that are articulated with projecting enclosures that provide direct access to both the healing garden and the main garden space directly adjacent to the day room.

Additional landscape drawings have been developed showing extent of proposed fencing, fencing details, and more detail on the specific design of the garden spaces.

Standard 4- Windows and Storage

Staff comments under standard 1 have indicated that the building design successfully incorporates extensive and varied fenestration bringing ample natural light into all of the building's interior spaces.

Staff requested additional information on storage for residents.

The facility includes a large locker room at the front entrance that will be secured and monitored providing each resident with sufficient locker space for back packs and small personal items. A small amount of personal storage and charging stations for phones will be provided in the sleeping areas. In addition, covered bike storage will be provided.

Standard 5 - Screening of Parking

Staff comments indicate that this standard has been met.

Standard 6 - Lodging House Conversion

Staff comments indicate that this standard is not applicable to this project.

Miscellaneous Design Comments from Planning Board Workshop #1

In addition to design comments focused on the applicable design standards, there were some additional comments relating to design that the design team would like to respond to:

- Design Parameters for COVID 19:

The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.

-All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. We have 7' to 8' distance typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to affor some privacy and to provide a physical barrier between guests to further protect against COVID transmission.

-CDC space recommendations equate to 113 s.f. of floor area be allocated per person in the sleeping areas. We are showing a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

-CDC recommendations include maintaining 6' distances between guests in eating areas as well. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

-CDC also provides guidance for HVAC systems to minimize transmission that include:

- Maximization of outside air intake
- Use of HEPA level filters that are changed out at regular intervals
- Supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems
- Humidity control systems

We will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

- Re-use Options for the Building:

The ultimate goal of providing services for those without shelter is to become so successful at creating housing solutions for all that the shelter is no longer needed. The Planning Board asked if the building's design would allow for re-use for a different purpose in the future.

The proposed building is one story with high ceilinged, open spaces, modern office and meeting space, and plentiful natural light. In addition, it is planned as a pre-engineered structure that will utilize a framing system with longer spans that minimizes columns. All of these features make for a very flexible building that could easily accommodate a variety of uses such as:

- Community Center
- Educational or Vocational Training Center
- City central storage or operations facility for a variety of departments
- Call center or other office use with large open office area needs
- Day care facility
- Emergency Storm Shelter

Front Perspective

WSA
Winton Scott Architects

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• 207.774.4811 • wintonscott.com

Entrance Plaza

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Cafeteria / Dayroom

Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

East Facade

South Facade

North Facade

West Facade

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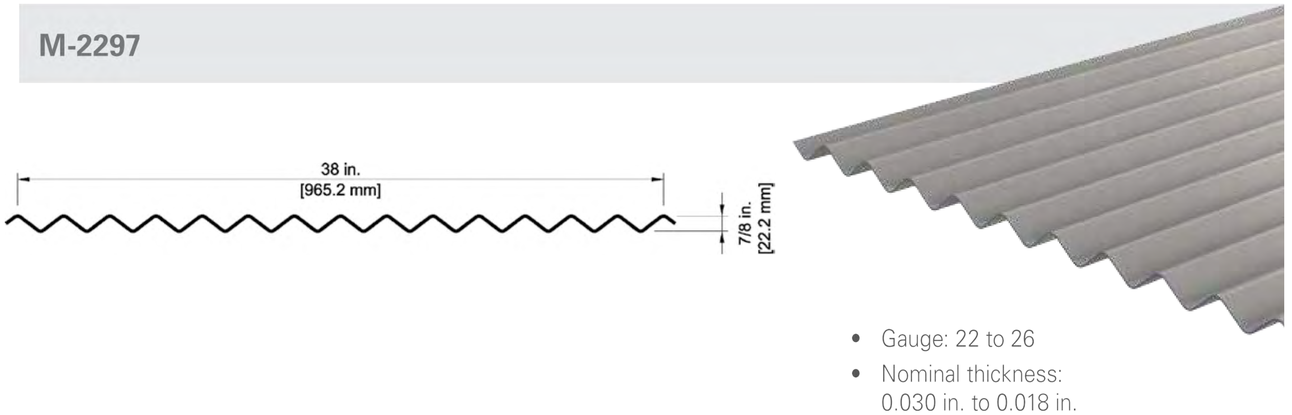
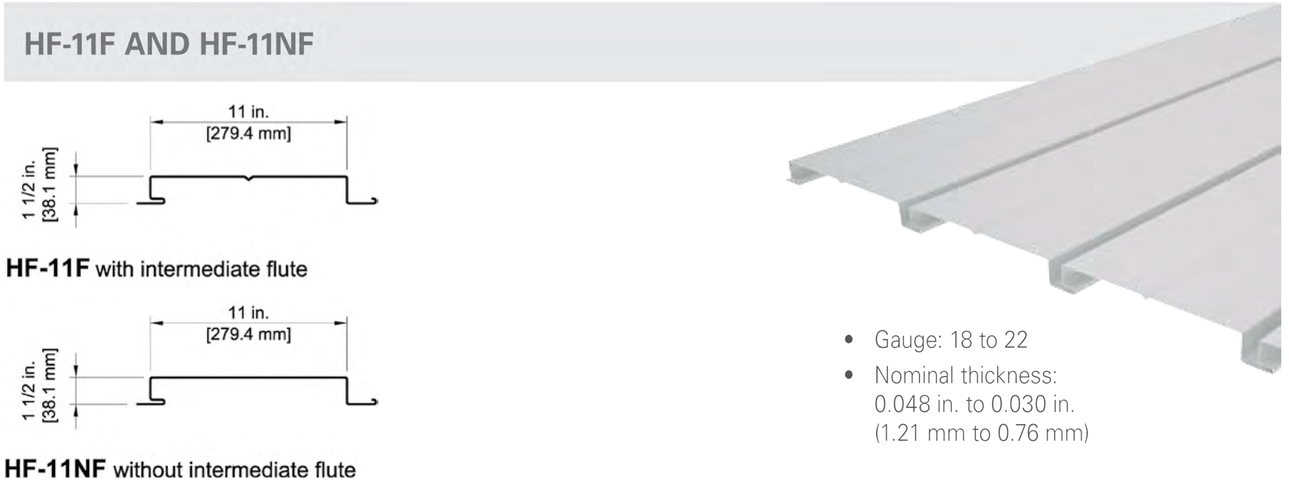
BRICK - Front Entrance Area

ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



- Gauge: 22 to 26
- Nominal thickness: 0.030 in. to 0.018 in.

HORIZONTAL METAL SIDING - Upper portion of Dormitories and Walls at Central Gathering Space Sloped Roof. (Medium Gray)



- Gauge: 18 to 22
- Nominal thickness: 0.048 in. to 0.030 in. (1.21 mm to 0.76 mm)

VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)

WSA
Winton Scott Architects
5 milk street, portland, maine 04101
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406'-0"

69'-0"

64'-4"

GENDER NEUTRAL SLEEPING SPACE

GENDER NEUTRAL SLEEPING SPACE

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 60 Beds

STAFF

TOILET

TOILET

LINEN DISP.

MEN

WOMEN

GNDR NTRL

UTILITY/HVAC

GNDR NTRL

STAFF

TOILET

LINEN DISP.

DAY ROOM / CAFETERIA (212 SEATS)

DIRTY LINENS

CLEAN LINENS

STAFF LAUNDRY / MAINT

GUEST LAUNDRY

DONATION & MISC STORAGE

TOILET

TOILET

SMALL GROUP 15' x 24'

SMALL GROUP 15'x12'

SMALL GROUP 15'x12'

JAN. CL.

TOILET

DNTL LAB

DENTAL SUITE

CNSLNG

SRVR.

LAB

SECURE MEDS

TOILET

EXAM 1

EXAM 4

TRIAGE

EXAM 2

EXAM 3

WAIT'G

HEALTH CLINIC

CHECK -IN

TEAM ROOM

STAFF ENTRY

MEETING

STOR.

STAFF LCKRS.

SHWR

STAFF LCKRS.

WOMEN

MEN

COPY

BREAK

MEETING

OFFICE 16 10'x11'

OFFICE 15 10'x11'

OFFICE 14 10'x11'

OFFICE 13 10'x11'

OFFICE 12 10'x11'

OFFICE 11 10'x11'

OFFICE 10 10'x11'

OFFICE 9 10'x11'

OFFICE 8 10'x11'

OFFICE AREA

DOUBLE OFFICE 1 10'x16'-6"

OFFICE 2 10'x11'

OFFICE 3 10'x11'

OFFICE 4 10'x11'

OFFICE 5 10'x11'

OFFICE 6 10'x11'

OFFICE 7 11'x16'-0"

DIRECTOR

KITCHEN 47' x 21'

TOILET

TOILET

FOYER

LOADING/ SERVICE AREA

ELEC SERV.

LOCKERS (220)

ENTRY

TOILET

SECURITY

DAY MNGR

HVAC H2O SPRINKLERS

116'-10 1/2"

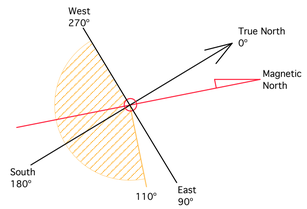
68'-6"

141'-10 1/2"

FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



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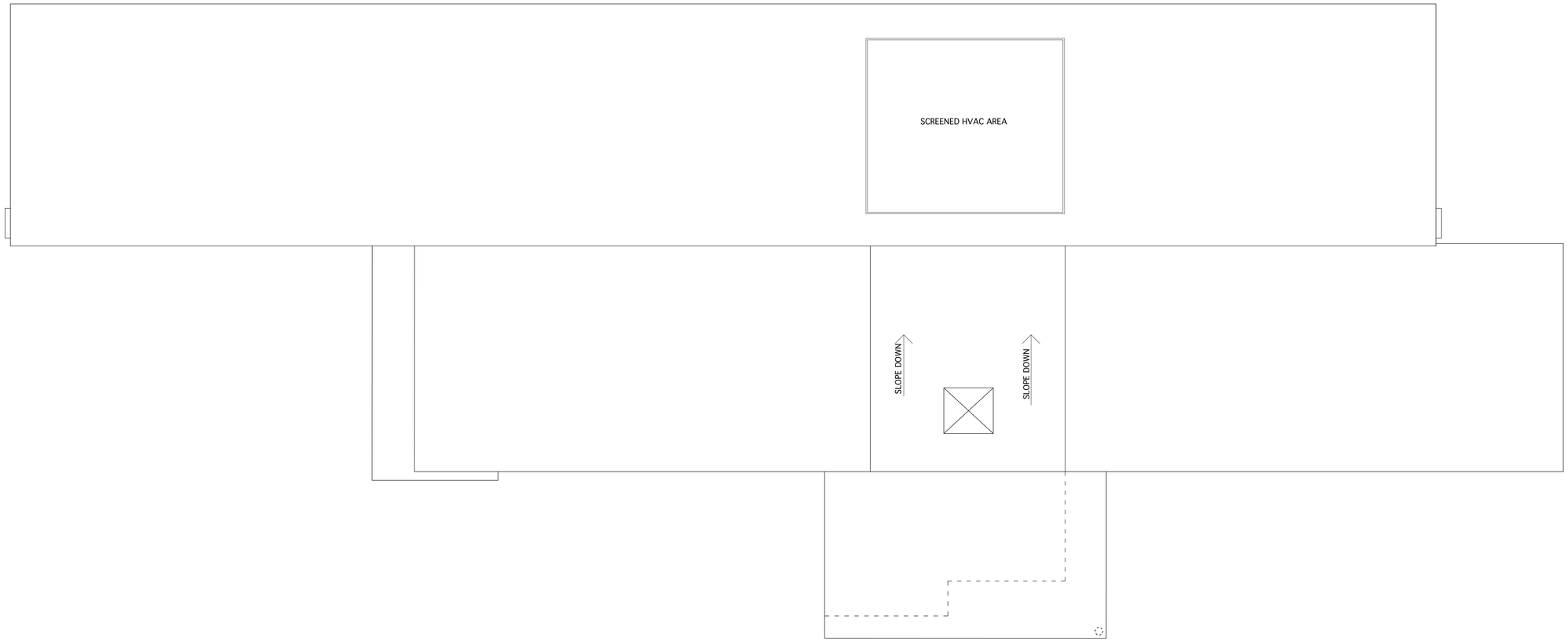

ROOF PLAN

SCALE: 1/16" = 1'-0"

Winton Scott Architects

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Main Gathering Space

Winton Scott Architects

5 milk street, portland, maine 04101
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ATTACHMENT D

STORMWATER MANAGEMENT REPORT
(BASIC STANDARDS AND GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021
REVISED AUGUST 2021

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6.0	PRESENTATION OF ANALYSIS	4
7.0	ASSUMPTIONS	4
8.0	STORMWATER MANAGEMENT OBJECTIVES	4
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10.0	CHAPTER 500 TREATMENT PERCENT COMPLIANCE	7
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12.0	OPERATIONS AND MAINTENANCE	8
13.0	PERMIT REQUIREMENTS	8
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Attachments

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed Homeless Service Center on an undeveloped 28.92-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

- Total Area of Site: Lot 4 = 28.92 acres (305,505 sf)
- Total Site Area to be Disturbed: Approx. 5.8 acres
- Total Developed Area After Construction: 5.35 acres
- Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
- Total Proposed Impervious Area: 138,711 SF (3.18 acres)
- Total Impervious Area After Construction: 145,430 SF (3.34 acres)

The proposed stormwater quality treatment approach utilizes Bioretention Filters, Grassed Underdrained Soil Filters, a Roof Line Drip Edge Filter and a Focalpoint® Bio-filtration system which are all listed in the Maine Best Management Practices (BMPs) manual as acceptable practices to meet the stormwater quality standards required under the general standards. The project intends to provide water quality treatment through these four BMP's and then discharge stormwater to either an existing onsite pipe drainage system or to the well-vegetated northerly fill slopes via sheet flow. Ultimately, the Presumpscot River is the receiving water, just downhill of the site.

The purpose of this analysis and report is to document what measures will be implemented to provide stormwater management for the project to satisfy the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations. Due to the site's proximate location to the Presumpscot River, **the applicant is requesting a waiver of the Flooding Standards as has been previously granted for projects in this area of Portland**. Flood controls are not necessarily due to the location of the development at the low end of the overall Presumpscot River watershed, thus a primary goal is to allow treated runoff to discharge from the site in advance of the overall peak river stage, which in large river watersheds occurs later or after a peak rainfall event. Water quality measures are documented and presented in this analysis.

Erosion and Sedimentation Controls (Basic Standards) will be employed during the construction of this project and are summarized in the Erosion and Sedimentation Control Plans provided on sheets C-5.0, C-8.5, and C-8.6.

2.0 EXISTING SITE CONDITIONS

The existing 28.92±-acre site is identified by the City of Portland Assessor's Office on Tax Map 323/Lot A-3, A-5, and A-10. The lot is identified as Lot 4 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.The site is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- A portion of Lot 4 is held under a conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site. An unnamed tributary flows from east to west on the north side of the site, over to the river.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

The site plans include a base topographic survey prepared by Sebago Technics several years ago. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the development area. The far west side of the site closest to the river is at elevation 30'+/-. The river's flood plain is at elevation 35' per the Subdivision plan.

The site's runoff primarily drains downslope directly to the Presumpscot River via overland flow. The southerly portion of the site contains several catch basins which collect stormwater runoff generated onsite as well as convey runoff generated from the Lucas Tree property and Suburban Propane property. This closed system outfalls at the toe of the fill slope to the west. There are no other apparent drainage systems on site, although a closed storm drainage system within Riverside Street. This system is part of several drainage easements benefitting the lots within the subdivision.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to this fact, **the Applicant is requesting a waiver of the Flooding Standard.** As discussed below, the site's current conditions are characterized by filled land that has naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs, and duff cover. Slopes associated with the manmade fill limits vary from 6 to 33% down to a flatter zone along the river.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The development site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Center site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

A 51,690 SF single story service center facility will be constructed, and site improvements will include 56 parking spaces, a 24' wide primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a 20' perimeter drive around the building for emergency and maintenance access.

Typical surface material types utilized on site include:

- Bituminous Pavement – main drive, sidewalk, and parking areas
- Reinforced Turf – perimeter fire lane
- Modular Block Pervious Pavers – front plaza/entrance and exterior social spaces
- All other areas will be treated with loam and seed and other various plantings in accordance with the project landscape plans

The project will be graded to generally follow the existing contours of the site; high in the east and lower in the west. The proposed homeless shelter building will be located along the westerly (rear) property line. The driveway will span east to west along the shared boundary with the Lucas Tree property with parking in front of the new building to the north of the roadway. The roadway grade will trend down toward the proposed building. An emergency access drive spans around the building that will follow down around the rear of the building. The lower portions of the site will remain as the westerly and northerly boundary lines.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions to comply with the MaineDEP VRAP program. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003 http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm*
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the Flooding Standards is requested, no formal hydrologic analysis using HydroCAD has been performed for Pre- and Post-development conditions. However, the water quality BMP's have been modeled using HydroCAD to demonstrate stage-storage and capacity/routing.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

That detention will not be required to reduce the peak flow rate or meet the Flooding Standards. **A waiver of the Flooding Standards is requested on the basis that Detention is not required to offset peak discharge since the overall watershed peak occurs substantially later than the site's. This so-called "beat the peak" approach has been considered in the past by the city and similar waivers for nearby projects, including most recently Suburban Propane, have been granted.**

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MaineDEP (revised October 2010).
- Designing water quality measures including bioretention filters, grassed underdrained soil filters, roof line drip edge filters, proprietary bio-filtration systems and level spreaders to provide long-term removal of non-point contaminants.

- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual.

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

To meet the General Standards, our office reviewed the MaineDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including:

- Grassed underdrained soil filters,
- Bio-retention filters,
- Vegetated buffers,
- Proprietary devices,
- And infiltration trenches

Following this review and incorporating knowledge of the site and the goals of the project, the stormwater management plan for the project has been designed with multiple BMP's located around the site's perimeter. This allows for proper treatment of the site while minimizing the need for storm drain piping and appurtenances. Although the Applicant is requesting a waiver of the Flooding Standard, it is understood that runoff must be dispersed along the fill slopes to minimize erosion. The proposed scheme will separate the stormwater runoff generated from the site and disperse discharge along the northerly fill slope. In total, there will be:

- Five (5) bioretention filters,
- one (1) grassed underdrained soil filter,
- one (1) Focalpoint® Bio-filtration system, and
- one (1) roof line drip edge filter employed as part of the stormwater management plan.

Level spreaders will be utilized at various locations to disperse discharge from the BMP's. Pretreatment will be utilized on site in the form of deep sump catch basins and rip rap inlets for BMP's to capture larger sediment and particles in the runoff.

In addition to these BMP's, the site design utilizes several pervious surface material treatments which decrease the overall impact of development. The 20' wide perimeter fire lane will be constructed using a reinforced turf material which is generally comprised of a prefabricated plastic grid that can be filled with loam and seed and allowed to grow. This will provide additional lawn area while also allowing for proper exterior access for emergency personnel and staff. The front plaza, main entrance, and southerly common space will utilize modular block pervious pavers which will be broken up with various seating areas, raised planter beds, and tree wells. Both of these surface materials will allow for a certain amount of infiltration of runoff greater than typical bituminous pavement which offers essentially no runoff. Although these areas are not equipped with a subbase material designed for filtration to Maine DEP BMP Technical Manual, it is understood that this approach will provide for a

certain amount of treatment and reduce overall runoff generated on site. This technique replaces approximately 50,985 SF area that would otherwise be constructed with impervious surface.

The following sections summarize the stormwater BMP's that are being employed to meet the water quality standards for the proposed development:

1. Bio-Retention Filter:

   Bio-retention filters will be installed along the westerly (rear) of the site. Five (5) separate filters will be used primarily to treat runoff from the perimeter fire lane that will consist of reinforced turf and adjacent garden/exterior common space. Each basin will receive runoff through direct absorption and primarily shallow concentrated flow via rip rap inlets. Runoff will enter the basin and flow through a filter section before being collected in underdrain pipes and directed to individual outfalls on the westerly fill slope. The bio-retention filter section was designed in accordance with Section 7.2 of the BMPs Technical Design Manual dated May 2016.

   The basins will be equipped with gate valves or equal control mechanism, that will be adjusted in order to control and discharge the water quality volume within 24-48 hours. Overflow structures in the form of 6" diameter standpipes with domed grates will be placed 6" above the filter bed in each basin to divert excess amounts of runoff to the underdrain pipes that discharge out to rip rap aprons or level lip spreaders on the northerly and westerly fill slopes.

   In total, the bio-retention filters will provide treatment for 11,998 SF of impervious area and 36,215 SF of developed area. This accounts for 8.65% of the total impervious area and 15.55% of the total developed area. Design calculations for the bio-retention filters are included in Attachment A. Please see Attachment B for the Stage-storage calculations.

2. Grassed Underdrained Soil Filter:

   One Grassed Underdrained Soil Filter (GUSF) will be employed to the north of the site to capture and treat runoff generated from the main entrance, main access drive, parking area, front plaza, and lawn areas. Runoff will primarily be directed via pipe flow to the basin before flowing through an 18" filter media and collected and conveyed in an underdrain system that will discharge the flow to the perimeter of the site. The GUSF section was designed in accordance with Section 7.1 of the BMPs Technical Design Manual dated May 2016.

   An overflow structure in the form of an outlet control manhole structure with a 2' diameter domed grate will be set 18" above the filter bed in the basin to discharge excess amounts of runoff to the perimeter of the site. The GUSF basin will discharge to a level lip spreader where runoff will be dispersed to sheet flow on the northerly fill slope. The underdrain inlet pipe to the outlet control structures will be installed with a pipe cap with an orifice sized to control the water quality volume and discharge within 24-48 hours.

   In total, the grassed underdrained soil filter will provide treatment for 53,619 SF of impervious area and 76,582 SF of developed area. This accounts for 38.66% of the total impervious area and 32.89% of the total developed area. Please see attached design calculations for the GUSF which are included in Attachment A. The stage-storage and drawdown calculation data is provided in Attachments B and C.

3. Roof Line Drip Edge Filter:

A roof line drip edge filter will be employed on the westerly (rear) side of the building to capture and treat runoff generated from a portion of the roof area. Water will fall directly onto the crushed stone surface, travel down through a reservoir layer, through a filter layer and be captured in underdrain pipes that will outlet to a level lip spreader on the westerly fill slope. The roof line drip edge filter section was designed in accordance with Section 7.5 of the BMPs Technical Design Manual dated May 2016.

In total, the roof line drip edge filter will provide treatment for 31,516 SF of impervious area and 31,516 SF of developed area. This accounts for 22.72% of the total impervious area and 13.53% of the total developed area. The design calculations for the drip edge filter are included in Attachment A.

4. Focalpoint® Bio-filtration System:

A FocalPoint® system[2] will be employed to provide water quality treatment for multiple area including the east half of the proposed building, the westerly garden/exterior common space, the loading dock area, and lawn area. The proprietary system consists of a shallow (6-12") depression filled with 18" of a soil filter media and planted with a variety of grasses and shrubs. Runoff entering the cell is detained temporarily before passing through the filter media. The filter media has a high flow rate (100 in/hr) that allows high amounts of runoff to be handled in a smaller footprint. The stormwater is then controlled below the filter section with a chamber storage system before being released downstream to a treatment row. An underdrain pipe then collects and discharges the stormwater from the system and connects to the existing closed drainage system in the southeast corner of the site. This closed drainage system outlets to the west beyond the toe of the existing fill slope where runoff ultimately enters the river. An overflow standpipe with a beehive grate is set approximately 6" above the filter bed and captures stormwater that cannot be handled in larger storm events.

The FocalPoint® will provide treatment for 37,261 SF of impervious area and 61,519 SF of developed area. This accounts for 26.86% of the total impervious area and 26.42% of the total developed area. Design calculations for the FocalPoint® Bio-filtration system are provided in Attachment D of this Application.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.18 acres of impervious surface. The proposed disturbed area will be about 5.8 acres. The stormwater management plan for the project utilizes four different types of BMP's: grassed underdrained soil filters, bio-retention filters, a proprietary Focalpoint® bio-filtration system and a roof line drip edge filter. By using multiple BMP's, discharge can be separated and divided along the property boundary to avoid erosion that might be experienced with one centralized treatment method. In addition to this non-centralized treatment scheme, runoff will be dispersed at the development boundaries with level spreaders to further dissipate runoff generated on site. The following table demonstrates the treatment percentages achieved for the project:

[2] See https://www.maine.gov/dep/land/stormwater/stormwaterbmps/manufactured-systems/focalpoint-january2017.pdf

Table 1: Portland Homeless Services Center Treatment Summary				
Treatment Method	**Impervious**		**Developed**	
	SF	**Percent**	**SF**	**Percent**
Bio-Retention Filter	11,998	8.65	36,215	15.55
Grassed Underdrain Soil Filter	53,619	38.66	76,582	13.53
Roof Line Drip Edge Filter	31,516	22.72	31,516	32.89
Focalpoint® System	37,261	26.86	61,519	26.42
Total	**134,394**	**96.89**	**205,832**	**88.39**
Required	**-**	**95**	**-**	**80**

As the table presents, the proposed treatment percentages exceed the required levels of 95% impervious area treatment and 80% developed area treatment.

11.0 EROSION AND SEDIMENTATION CONTROL (BASIC STANDARDS)

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are included in the project plan set. Erosion control BMP's, as described in the MaineDEP Erosion and Sediment Control BMP Manual, will be utilized throughout the project. BMP's proposed include but are not limited to:

- Stabilized Construction Entrance
- Siltation fencing/erosion control mix berms
- Inlet/Outlet protection
- Temporary construction stabilization
- Slope stabilization
- Level lip spreaders

Level lip spreaders are crucial to the success of the stormwater management plan as the runoff generated onsite will be dispersed along the existing fill slopes. Level lip spreaders will be employed at all BMP outfalls that discharge to the perimeter fill slopes. In total, five (5) level lip spreaders will be employed as part of the development. The contractor will also be required to employ ESC BMP's for any material stockpiles as well as any areas left denuded for extended periods of time during construction. The ESC plan for the project complies with the requirements detailed in Attachment A of Maine DEP's chapter 500 Rules for Stormwater Management, thus satisfying the Basic Standard.

12.0 OPERATIONS AND MAINTENANCE

The stormwater management facilities will be maintained by the Applicant or their assigns after construction is complete. The general contractor will be responsible for maintenance during construction. The contract documents will require that the contractor designate a person for maintenance of the facilities during construction as required by this application. Long term operation/ maintenance schedules for the facilities are provided in the updated O&M Manual included in Attachment E to this report.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

14.0 CONCLUSION

The Stormwater Management Plan for this project outlines the measures proposed to achieve compliance with the Chapter 500 Stormwater Management standards for water quality treatment. The design includes stormwater quantity controls including storage components within the bio-retention filters, grassed underdrained soil filter, roof drip edge filter, and subsurface chamber system in the Focalpoint® system. The site will discharge and re-disperse stormwater runoff to sheet flow along the north and west fill slopes and ultimately flow to the Presumpscot River, which is major river segment, thus the applicant is seeking a waiver of the flooding standards. Other than the proprietary treatment system, the majority of the runoff generated will ultimately discharge directly onto the north and west fill slopes. The drainage scheme for the project utilizes multiple stormwater filtration basins with multiple discharges around the site, rather than a traditional centralized stormwater basin such as a wet pond. This approach will redisperse stormwater to sheet flow and back to its natural drainage course as it makes its way to the river. A minor amount of development area will direct runoff to the municipal street system and these impacts are considered insignificant.

Based on the proposed design, the runoff from the proposed development will be captured and conveyed in a manner that will not have an adverse impact to the surrounding stormwater systems or the environment.

15.0 ATTACHMENTS

A Water Quality Calculations
B HydroCAD Stage-Storage Reports
C Drawdown Calculations
D FocalPoint® Design Worksheet/HydroCAD Report
E Operation & Maintenance Manual

ATTACHMENT A
WATER QUALITY CALCULATIONS

Portland Homeless Service Center - Stormwater Management Summary

08.11.2021
Designed By: KAB
Checked By: SRB

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	31516	0	31,516	31,516	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	53619	22,963	76,582	53,619	22,963
103a	0	7,664	7,664	0	0
103b	37261	24,258	61,519	37,261	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

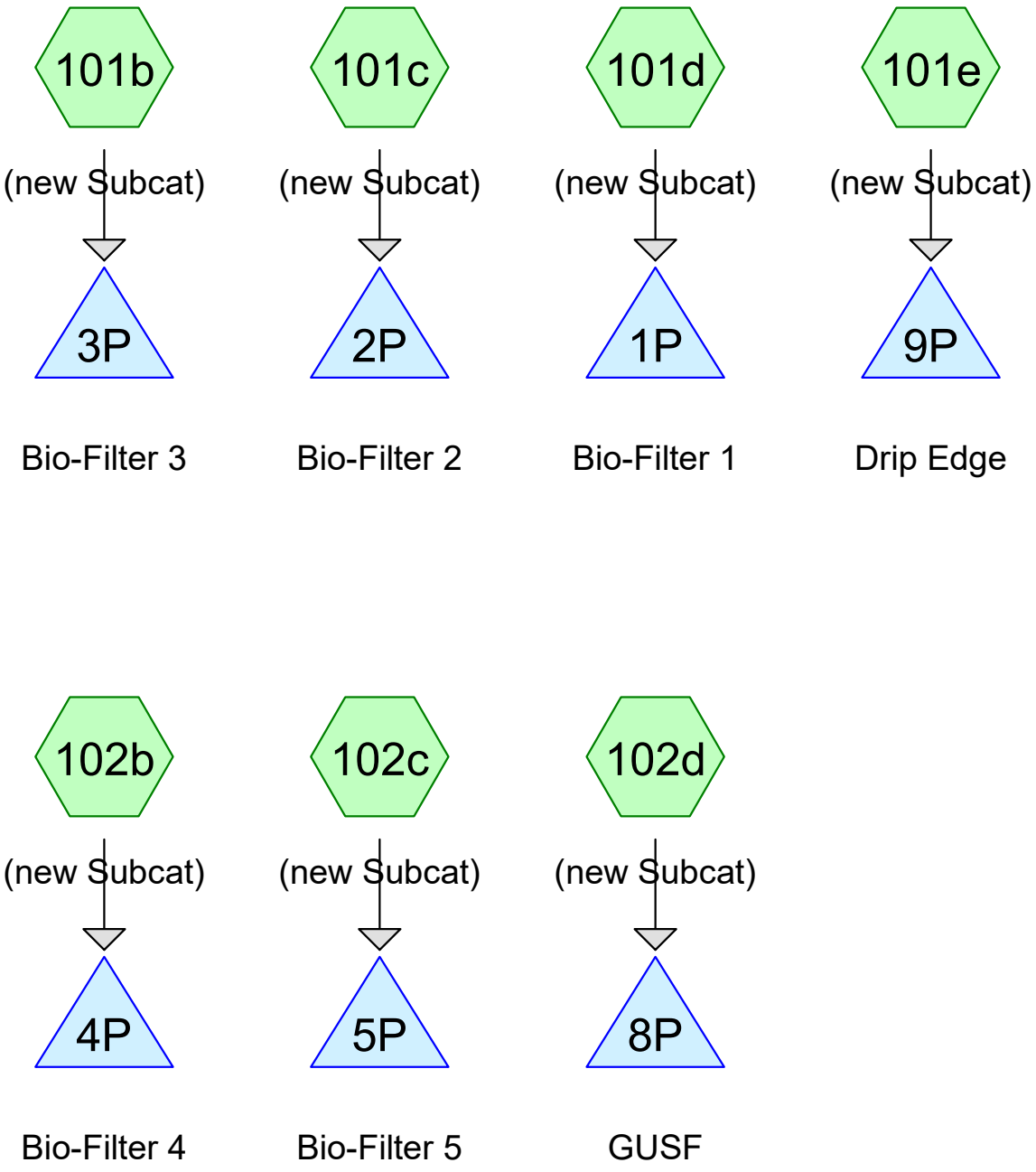
BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,234	5,728	3,140	3,226
101e	Roof Line Drip Edge Filter	2,626	2,910	-	-
101a, 102a, 103a, 104 (untreated)	-	-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

ATTACHMENT B
HYDROCAD STAGE-STORAGE REPORTS



Subcat Reach Pond Link

Routing Diagram for 3824.01_post-dev
Prepared by {enter your company name here}, Printed 8/11/2021
HydroCAD® 10.10-4a s/n 01265 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 101b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af, Depth> 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
281	98	Water Surface, HSG C
4,228	74	>75% Grass cover, Good, HSG C
4,509	75	Weighted Average
4,228		93.77% Pervious Area
281		6.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,669	87	Dirt roads, HSG C
547	98	Water Surface, HSG C
3,227	74	>75% Grass cover, Good, HSG C
7,443	82	Weighted Average
6,896		92.65% Pervious Area
547		7.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af, Depth> 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
427	98	Water Surface, HSG C
4,816	98	Unconnected pavement, HSG C
661	74	>75% Grass cover, Good, HSG C
5,904	95	Weighted Average
661		11.20% Pervious Area
5,243		88.80% Impervious Area
4,816		91.86% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 101e: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
27,879	98	Roofs, HSG C
3,637	98	Water Surface, HSG C
31,516	98	Weighted Average
31,516		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102b: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
274	98	Water Surface, HSG C
3,532	74	>75% Grass cover, Good, HSG C
3,806	76	Weighted Average
3,532		92.80% Pervious Area
274		7.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102c: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
793	98	Water Surface, HSG C
1,191	98	Paved parking, HSG C
12,606	74	>75% Grass cover, Good, HSG C
14,590	77	Weighted Average
12,606		86.40% Pervious Area
1,984		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 102d: (new Subcat)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
3,226	98	Water Surface, HSG C
22,963	74	>75% Grass cover, Good, HSG C
50,393	98	Paved parking, HSG C
76,582	91	Weighted Average
22,963		29.98% Pervious Area
53,619		70.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 1P: Bio-Filter 1

Inflow Area = 0.136 ac, 88.80% Impervious, Inflow Depth > 5.21" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.059 af
Outflow = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 2%, Lag= 1.3 min
Primary = 0.74 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.61' @ 12.09 hrs Surf.Area= 598 sf Storage= 528 cf

Plug-Flow detention time= 94.3 min calculated for 0.058 af (99% of inflow)
Center-of-Mass det. time= 90.4 min (853.6 - 763.2)

Volume	Invert	Avail.Storage	Storage Description
#1	61.83'	775 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.83	427	0.0	0	0
62.50	427	0.0	0	0
64.00	427	33.0	211	211
64.50	575	100.0	251	462
65.00	678	100.0	313	775

Device	Routing	Invert	Outlet Devices
#1	Primary	61.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.83' / 61.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.72 cfs @ 12.09 hrs HW=64.61' (Free Discharge)
- **1=Culvert** (Passes 0.22 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.03 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.19 cfs @ 1.09 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.50 cfs @ 0.90 fps)

Summary for Pond 2P: Bio-Filter 2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 0.171 ac, 7.35% Impervious, Inflow Depth > 3.80" for 25 Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 0.054 af
Outflow = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af, Atten= 39%, Lag= 7.8 min
Primary = 0.47 cfs @ 12.20 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.58' @ 12.20 hrs Surf.Area= 781 sf Storage= 658 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 116.1 min (925.0 - 808.9)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	1,012 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	547	0.0	0	0
60.50	547	0.0	0	0
62.00	547	33.0	271	271
62.50	757	100.0	326	597
63.00	905	100.0	416	1,012

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.45 cfs @ 12.20 hrs HW=62.58' (Free Discharge)
- **1=Culvert** (Passes 0.16 cfs of 1.18 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.04 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.11 cfs @ 0.92 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.75 fps)

Summary for Pond 3P: Bio-Filter 3

Inflow Area = 0.104 ac, 6.23% Impervious, Inflow Depth > 3.11" for 25 Year event
Inflow = 0.38 cfs @ 12.08 hrs, Volume= 0.027 af
Outflow = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af, Atten= 32%, Lag= 8.1 min
Primary = 0.26 cfs @ 12.21 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.55' @ 12.22 hrs Surf.Area= 398 sf Storage= 327 cf

Plug-Flow detention time= 124.4 min calculated for 0.027 af (100% of inflow)
Center-of-Mass det. time= 123.6 min (950.2 - 826.6)

Volume	Invert	Avail.Storage	Storage Description
#1	59.83'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.83	281	0.0	0	0
60.50	281	0.0	0	0
62.00	281	33.0	139	139
62.50	384	100.0	166	305
63.00	514	100.0	225	530

Device	Routing	Invert	Outlet Devices
#1	Primary	59.83'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.83' / 59.00' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	59.83'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	62.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	62.50'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.23 cfs @ 12.21 hrs HW=62.55' (Free Discharge)
- **1=Culvert** (Passes 0.08 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.06 cfs @ 0.73 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.15 cfs @ 0.60 fps)

Summary for Pond 4P: Bio-Filter 4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 0.087 ac, 7.20% Impervious, Inflow Depth > 3.21" for 25 Year event
Inflow = 0.33 cfs @ 12.08 hrs, Volume= 0.023 af
Outflow = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af, Atten= 47%, Lag= 11.5 min
Primary = 0.17 cfs @ 12.27 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 65.04' @ 12.27 hrs Surf.Area= 387 sf Storage= 314 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 128.5 min (952.7 - 824.2)

Volume	Invert	Avail.Storage	Storage Description
#1	62.33'	515 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.33	274	0.0	0	0
63.00	274	0.0	0	0
64.50	274	33.0	136	136
65.00	378	100.0	163	299
65.50	489	100.0	217	515

Device	Routing	Invert	Outlet Devices
#1	Primary	62.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.33' / 61.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	62.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	65.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	65.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.15 cfs @ 12.27 hrs HW=65.04' (Free Discharge)
- **1=Culvert** (Passes 0.06 cfs of 1.17 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.62 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.09 cfs @ 0.51 fps)

Summary for Pond 5P: Bio-Filter 5

Inflow Area = 0.335 ac, 13.60% Impervious, Inflow Depth > 3.30" for 25 Year event
Inflow = 1.30 cfs @ 12.08 hrs, Volume= 0.092 af
Outflow = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af, Atten= 16%, Lag= 4.9 min
Primary = 1.09 cfs @ 12.16 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.15' @ 12.16 hrs Surf.Area= 955 sf Storage= 957 cf

Plug-Flow detention time= 116.4 min calculated for 0.089 af (96% of inflow)
Center-of-Mass det. time= 94.1 min (915.8 - 821.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.33'	1,311 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.33	793	0.0	0	0
62.00	793	0.0	0	0
63.50	793	33.0	393	393
64.00	917	100.0	428	820
64.50	1,047	100.0	491	1,311

Device	Routing	Invert	Outlet Devices
#1	Primary	61.33'	**6.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.33' / 60.50' S= 0.0830 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	61.33'	**2.400 in/hr Exfiltration over Surface area**
#3	Device 1	64.00'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	64.00'	**5.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.03 cfs @ 12.16 hrs HW=64.14' (Free Discharge)
- **1=Culvert** (Passes 0.32 cfs of 1.19 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.05 cfs)
  - **3=Orifice/Grate** (Weir Controls 0.27 cfs @ 1.22 fps)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.70 cfs @ 1.01 fps)

Summary for Pond 8P: GUSF

Inflow Area = 1.758 ac, 70.02% Impervious, Inflow Depth > 4.76" for 25 Year event
Inflow = 9.36 cfs @ 12.07 hrs, Volume= 0.697 af
Outflow = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af, Atten= 37%, Lag= 5.8 min
Primary = 5.92 cfs @ 12.17 hrs, Volume= 0.565 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 63.00' @ 12.17 hrs Surf.Area= 4,876 sf Storage= 8,030 cf

Plug-Flow detention time= 117.2 min calculated for 0.565 af (81% of inflow)
Center-of-Mass det. time= 44.3 min (825.1 - 780.8)

Volume	Invert	Avail.Storage	Storage Description
#1	58.75'	8,051 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.75	3,226	0.0	0	0
61.00	3,226	0.0	0	0
62.50	4,411	100.0	5,728	5,728
63.00	4,880	100.0	2,323	8,051

Device	Routing	Invert	Outlet Devices
#1	Device 4	62.50'	**60.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Device 4	58.67'	**0.8" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 2	58.75'	**6.0" Round Culvert** L= 7.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.75' / 58.67' S= 0.0114 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#4	Primary	58.57'	**12.0" Round Culvert** L= 18.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.57' / 58.40' S= 0.0094 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#5	Device 3	58.75'	**2.400 in/hr Exfiltration over Surface area**

Primary OutFlow Max=5.91 cfs @ 12.17 hrs HW=62.99' (Free Discharge)
└**4=Culvert** (Inlet Controls 5.91 cfs @ 7.52 fps)
  ├**1=Orifice/Grate** (Passes < 17.44 cfs potential flow)
  └**2=Orifice/Grate** (Passes < 0.03 cfs potential flow)
    └**3=Culvert** (Passes < 1.49 cfs potential flow)
      └**5=Exfiltration** (Passes < 0.27 cfs potential flow)

Summary for Pond 9P: Drip Edge

Inflow Area = 0.724 ac,100.00% Impervious, Inflow Depth > 5.56" for 25 Year event
Inflow = 4.14 cfs @ 12.07 hrs, Volume= 0.335 af
Outflow = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af, Atten= 73%, Lag= 20.3 min
Primary = 1.13 cfs @ 12.41 hrs, Volume= 0.272 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 67.40' @ 12.41 hrs Surf.Area= 3,637 sf Storage= 2,761 cf

Plug-Flow detention time= 15.5 min calculated for 0.271 af (81% of inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	63.83'	2,910 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
63.83	3,637	0.0	0	0
64.50	3,637	0.0	0	0
65.50	3,637	0.0	0	0
67.50	3,637	40.0	2,910	2,910

Device	Routing	Invert	Outlet Devices
#1	Primary	63.83'	**6.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.83' / 62.65' S= 0.0118 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=1.13 cfs @ 12.41 hrs HW=67.40' (Free Discharge)
1=Culvert (Barrel Controls 1.13 cfs @ 5.76 fps)

ATTACHMENT C
DRAWDOWN CALCULATIONS

Portland Homeless Services Center
BMP Drawdown Calcs

08.04.2021
Designed By: KAB
Checked By: SRB

Drawdown Calculation - GUSF #1

Orifice Diameter =0.83 in

Elev. (ft)	Depth (ft)	Surface Area (sq.ft)	Ave. End Area (sq.ft)	End Area Depth (ft)	Incremental Volume (cf)	Head, h (ft)	Orifice Flow (cfs)	Drawdown Time (secs)	Drawdown Time (hours)
63.50	1.00	2,040	4411.00	0.50	2205.50	3.17	0.0322	68497.56	19.027
63.00	0.50	1,773	3226.00	0.50	1613.00	2.67	0.0296	54585.39	15.163
62.50	0.00	1,520	0.00	0.00	0.00	2.17	0.0266	0.00	0.000
								TOTAL	***34.190***

Orifice Formula	**$CA\ (2gh)^{1/2}$**	
Orifice Diameter:	**0.83**	inch
A:	0.003757	sq.ft
Filter Thickness:	2.17	feet
g:	32.174	ft/s^2
C:	0.6	Orifice/Grate

ATTACHMENT D
FOCALPOINT® DESIGN WORKSHEET/HYDROCAD REPORT

DESIGN WORKSHEET

FOCALPOINT

MAINE CHAPTER 500 PROJECTS

1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf) See step 2 to determine if minimum size is appropriate.**
   - Tributary impervious area: = 0.86 ac **(A)**
   - Tributary pervious area: = 0.56 ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 189 sf
   - FocalPoint bed area provided: = 200 sf
   - Dimensions of proposed FocalPoint: = 10 ft x 20 ft

2. **A 0.95-in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 400 ft^3
   - Peak ponding depth from 0.95-in 24-hr storm event: = below mulch in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = 1 : 2

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1-yr 24-hr storm event.**
   - 1-yr 24-hr peak flowrate: = 1.82 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (HD singles or taller - 1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 91

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled release of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☐

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer's representative**
   - The design has been reviewed by ACF Environmental ☐
   - Engineer will coordinate installation inspection with ACF Environmental ☐

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within FocalPoint must be a minimum of 174 sf per 1.0 acre of impervious area (26 sf per 0.15 acres). Thickness of the media is to be no less than 1.5 ft (18 in).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:

FOCALPOINT ACCESSORIES:

Pretreatment - Rain Guardian Turret

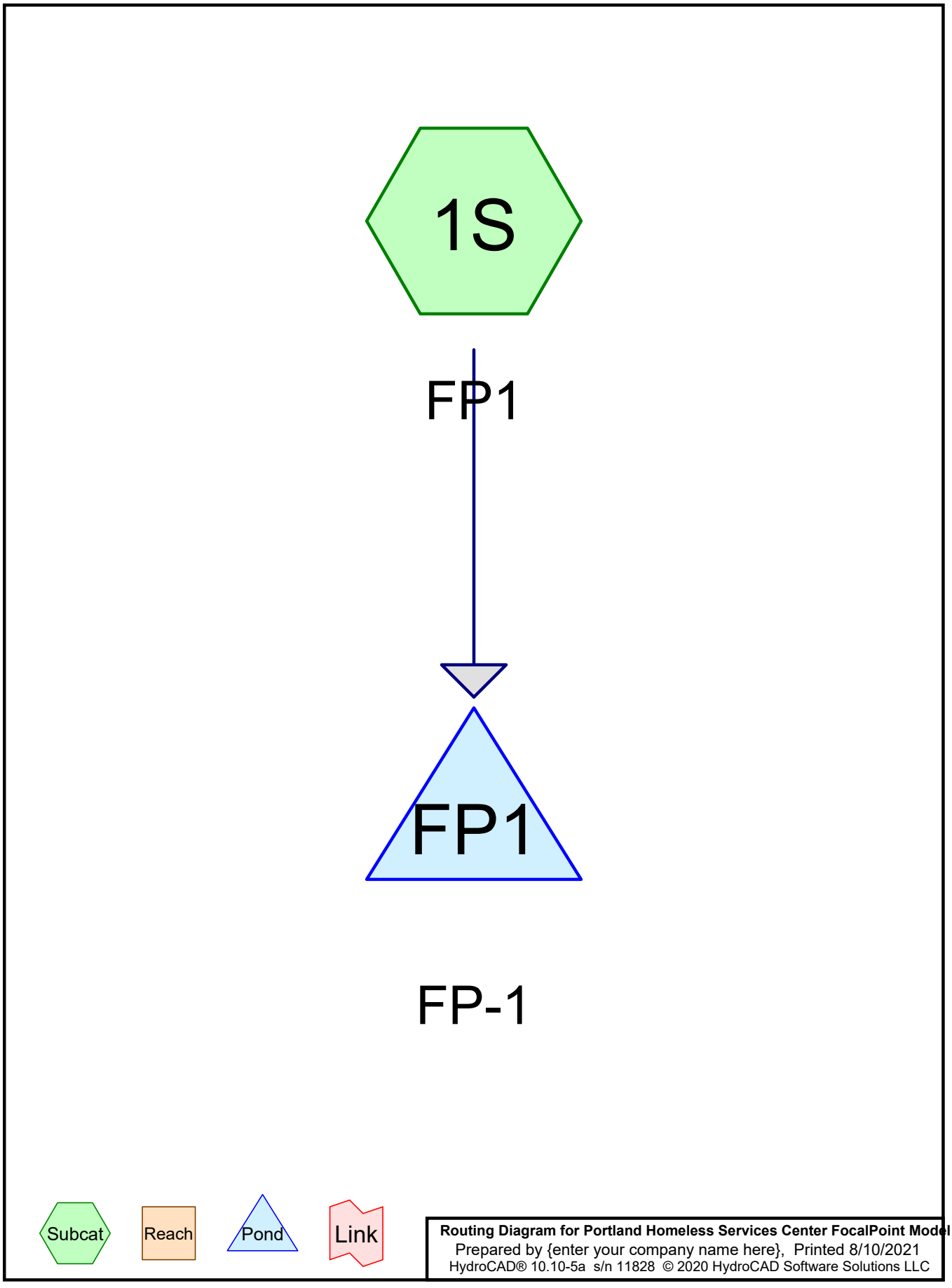
Pretreatment - Rain Guardian Foxhole

Pretreatment - PreTx

Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com


1S
FP1
FP1
FP-1
Subcat
Reach
Pond
Link
Routing Diagram for Portland Homeless Services Center FocalPoint Model
Prepared by {enter your company name here}, Printed 8/10/2021
HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: FP1

Runoff = 0.10 cfs @ 12.15 hrs, Volume= 501 cf, Depth> 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 0.95-in Rainfall=0.95"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 0.10" for 0.95-in event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 501 cf
Outflow = 0.10 cfs @ 12.15 hrs, Volume= 500 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.10 cfs @ 12.15 hrs, Volume= 500 cf
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.77' @ 12.15 hrs Surf.Area= 200 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 499 cf (100% of inflow)
Center-of-Mass det. time= 0.1 min (864.7 - 864.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.15 hrs HW=61.77' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.75' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 1S: FP1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf, Depth> 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-YR Rainfall=2.60"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 1.05" for 1-YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf
Outflow = 1.29 cfs @ 12.20 hrs, Volume= 5,358 cf, Atten= 29%, Lag= 6.0 min
Primary = 0.46 cfs @ 11.90 hrs, Volume= 4,675 cf
Secondary = 0.83 cfs @ 12.20 hrs, Volume= 683 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.62' @ 12.20 hrs Surf.Area= 200 sf Storage= 663 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (809.5 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.46 cfs @ 11.90 hrs HW=62.10' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Secondary OutFlow Max=0.82 cfs @ 12.20 hrs HW=64.62' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.82 cfs @ 1.12 fps)

ATTACHMENT E
OPERATION & MAINTENANCE MANUAL

HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE MANUAL FOR STORMWATER FACILITIES

PREPARED FOR

DC PREDEVELOPMENT LLC
CITY OF PORTLAND

PREPARED BY

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I. INTRODUCTION

Runoff from developed areas may contain a number of contaminants especially when emanating from rooftops, paved or lawn areas. This runoff can contain a significant amount of non-point contaminants, which can have an adverse impact on the receiving waters. The installation of soil media filters, vegetated buffer strips and other stormwater best management practices can significantly reduce the non-point pollution discharge from the developed area.

The effectiveness of BMP's and other components of the system are dependent on their upkeep and maintenance to assure they meet their design function over an extended period of time. It is critical that the stormwater management facilities are inspected on a regularly scheduled basis, and that maintenance is performed on an as needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that transport the flow to the outlets or treatment measures. Thus, maintenance should be directed to the total system, not just the BMP's.

The purpose of this document is to define in detail the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended on a long-term basis for the City of Portland Homeless Services Center. This Operations and Maintenance Manual is specific to the proposed stormwater measures utilized to execute a successful stormwater management plan. Subsequent sections identify individual maintenance items, give a brief commentary of the function and need of the item, a description of the work required, and a suggested frequency of accomplishment. While the suggested programs and schedules must be adapted to specific projects, the material presented should provide guidance for a successful long-term program.

A. Guidelines Overview

A summary of the individual components of stormwater management facilities for this project has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis, which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The owner/operator should review the design drawings and documents carefully to understand the particular elements of the project.

The end of this section should allow the owner/operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

This report includes the Operation and Maintenance requirements for any potential BMP identified in the Stormwater Management Report for this project.

B. Responsible Party

The responsible party for operation and maintenance of the stormwater and other site infrastructure will be the applicant or their agents or assigns. A copy of an unexecuted Stormwater Drainage System Maintenance Agreement is included in Appendix C.

II. PROJECT OVERVIEW

Key permits issued (or applied for) on the project include:

- City of Portland Site Plan Approval
- MaineDEP Site Location of Development Permit (Delegated Review by City of Portland)
- Maine Construction General Permit Stormwater General Permit

A copy of the permits and Stormwater Management Report should be appended to this manual as Appendix E. The Owner/Operator of the stormwater management system should review these permits for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained Gorrill Palmer for civil engineering for the development project. Gorrill Palmer has prepared the design for the stormwater management facilities and may be contacted at:

Gorrill Palmer
707 Sable Oaks Drive – Suite 30
South Portland, Maine 04106
207.772.2515

The applicable plans and design documents which apply to the project are:

1. Civil Site Plans Prepared by Gorrill Palmer
2. The Erosion Control/Sedimentation Control Plan for the project
3. The Stormwater Management Plan for the project

A copy of these documents should be retained with this manual.

The proposed design includes inlets, stormwater conveyance lines, grassed underdrained soil filters, bio-retention filters and outlet control structures.

The key receiving waters for this project is the Presumpscot River which is under tidal influence.

The manual is intended for general guidance; however, any substituted deviations from the manual should be reviewed with respect to provisions of Appendix D.

III. STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS

The following narratives describe the inspection/maintenance provisions for the Stormwater Management system. Proper O&M is necessary to make sure the system will provide its intended purpose of conveying runoff, removing a substantial amount of the suspended solids, and other contaminants in the stormwater runoff.

A. Stormwater Inlets

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets include catch basins and field inlets. Field inlets exist in the bio-retention filters and grassed underdrained soil filters as overflow structures and in lawn areas in front of the building.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets near the sidewalk areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the buildings.

Frequency: All inlets should be inspected on a quarterly basis, and after/during significant storm events i.e. >1" rainfall).

Maintenance Personnel: The maintenance personnel will perform the normal maintenance/ inspections of the inlets and tributary drainage system.

Comments: Maintenance of inlets is critical on this project.

B. Tributary Drainage System

Preface: Stormwater from the project will be collected in catch basins in the roadway/parking lot and transported to treatment basins or directed through filters and into a conveyance (tributary) system which transports the flow to individual outfalls. The conveyance systems

serving each BMP will be principally overland flow discharging to piped drain systems other than the bio-retention filters which receive stormwater via rip rap inlets along the edge of the reinforced turf fire lane. Most sediment generated will be collected in the roadway catch basins and trapped in those structures or within the rip rap inlets leading down to the basins. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the onsite systems.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that the carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems, the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with debris.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long-term basis, and that its operation does not transport excessive sediments to any downstream treatment device or the receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. If a temporary filter bag has been designated for the inlet during construction, silt or other deleterious materials, can significantly reduce capacity and the bags should be removed with the sediment and replaced during construction. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the Development. The removed material must be disposed of at an approved site for such materials.

If sediment in the pipeline is observed, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed.

Frequency: The tributary drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

C. Grassed Underdrained Soil Filter

Preface: The grassed underdrained soil filter collects stormwater runoff from drainage swales and the closed drainage system in the roadway/parking area before passing it through a treatment section and discharging onto the south and east sides of the site. The soil filter is an underdrain system with multi-media aggregates.

Inspection/Monitoring: The soil filter can be inspected visually and should be inspected regularly and especially after a significant rain event (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. This is particularly important around ditch lines and pipe inlets.

Large Debris

Large debris such as trash should be removed on a routine basis.

Turf Maintenance

The basin should be allowed to develop for one full growing season post-construction prior to their first mowing. This allows for natural re-seeding of grass seed mixes and establishment of a healthy stand of grass. After the first year, only mow grass two times per year maximum. A minimum 6" height of grass should maintained in the filter at all times.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example,

the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.

4. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
5. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.

Water the grass in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the grass to re-establish.

Frequency: The grassed underdrained soil filters should be inspected semi-annually and maintained as necessary.

Maintenance/Inspection Responsibility: The Owner or an outside agent is responsible for inspection and maintenance of the porous pavement areas.

Comments: The grassed underdrained soil filters are critical to the stormwater management plan as they provide treatment for the entire road and driveways/front yards and roofs. Snow storage is prohibited within the basins.

D. Bio-Retention Filters

Preface: The bio-retention filters are soil filters with planted soil beds, an underdrain system with multi-media aggregates set in a shallow basin. Stormwater runoff is conveyed to the filters from the surface before passing through the filter and into a closed drainage system.

Inspection: The bio-retention filters can be inspected visually. Visual inspections should also occur after large storm events (i.e. >1").

Maintenance: The procedures for maintenance are as follows:

Inlets

Inlets to each soil filter area should be kept open and in good working condition. Inlets for each of the bio-filters is through drainage swales or direct sheet flow. It will be important to ensure that debris and grass clippings are properly removed and do not settle in these swales.

Large Debris

Large debris such as trash should be removed on a routine basis.

Vegetation & Mulch

Periodic weeding and other upkeep of the plantings will be necessary on a monthly basis during Spring, Summer and Fall. Hand weeding is required as the use of herbicides is not recommended. Every Spring, a new layer of mulch should be added to the soil filter. This should also be performed by hand in order to protect the vegetation.

Erosion In And Around Soil Filter

Check slopes along the sidewalk areas to ensure that they are stabilized and show no signs of erosion. Eroded areas should be repaired as soon as possible.

Sedimentation (or Clogging) of Soil Filter Area

If the soil filter area is holding water for a period longer than 48-72 hours, the soil mix has, more than likely, become clogged with sediment and/or the underdrains have clogged. To correct a standing water problem, the following remedial actions are recommended:

1. Evaluate the drainage area to the soil filter area to identify any potential sources of sediment, such as an erosive condition, that may be contributing to the clogging of the device. If a source is identified, it is recommended that that source be eliminated to the fullest extent practicable before proceeding with the remaining recommendations provided below.
2. Flush the underdrains. Use cleanouts to flush the underdrains. Sediment in the drains may be preventing the soil mix from draining. Make sure to provide a way to capture any flushed sediment before it enters the stream environment or storm drain system downstream of the device. If, after flushing the underdrains, the device continues to hold water, the soil mix may be contaminated. As such, following the guidelines provided below is recommended.
3. Gage the extent of soil contamination. To do this, it is recommended that one or more test pits be dug with a shovel and that the soil layer be evaluated for contamination. Once the levels of contamination have been determined (for example, the top 4" of soil appears to be contaminated), it is recommended that you proceed with the remaining remedial actions.
4. Harvest the plants (when applicable). Care should be taken in the removal and temporary storage of the plants so that as many as possible can be harvested for replanting in the soil filter area once the functioning of the device has been restored sufficiently.
5. Remove the mulch layer.
6. Remove the top few inches of contaminated soil plus an additional 2-inch of soil and replace the removed soil with a clean soil mix in accordance with the soil mix specification applicable to the particular soil filter area.
7. Monitor the functioning of the soil filter area during the next two to three rain events. If the device appears to be draining as intended (e.g., there is no standing water 48-72 following a rain event), proceed with the remaining remedial actions. If the area continues to hold standing water, then the entire soil filter area soil mix and the underdrains may need to be removed and replaced. Reuse of any undamaged underdrains may be possible once they have been cleaned thoroughly.
8. Replant the harvested plants and replace any plants that were rendered unusable during or following their removal from the soil filter area.

9. Replace the removed mulch layer with fresh mulch.
10. Water the plants in the soil filter for the next two or more weeks unless there is sufficient rainfall. This will help the plants to re-establish themselves.

Frequency: The bio-retention filters should be inspected semi-annually and maintained as necessary.

Comments: Snow storage within the filter area is prohibited by Maintenance Personnel.

E. Level Lip Spreaders

Preface: Level spreaders are a vegetated or mechanical structure used to disperse or "spread" concentrated flow thinly over a receiving area to reduce erosion and movement of sediment as well as filter sediment and soluble pollutants, and sediment-attached pollutants.

Inspection: The level spreader should be inspected twice annually and after major storms (i.e. >0.5") for sand accumulation and debris that may reduce its capacity.

Maintenance: The procedures for maintenance are as follows:

Sediment Removal:
Sediment buildup within the swale or storage area should be removed when it has accumulated to approximately 25% of the channel capacity.

Debris:
Remove debris such as leaf litter, branches and tree growth from the spreader.

Snow Storage:
Snow should not be stored within the area of the level spreader.

Frequency: The Level Lip Spreaders should be inspected twice annually and maintained as necessary.

Comments: Reconstruction of the level spreader may be necessary when sheet flow from the spreader channelize. Each of the level spreaders employed as part of the project will receive flow from BMP outlet pipes.

F. Proprietary Treatment Devices (FocalPoint®)

Preface: A FocalPoint® system will be used on site to treat surface runoff from impervious and landscaped area.

Inspection: Inspection of the filter should be performed after each major rainfall event to ensure that stormwater runoff is able to pass through the filters. The vegetation should be inspected and maintained regularly similar to other landscape features on site. The underdrain outlet should be inspected regularly.

Maintenance: Clear inlets and pretreatment devices of debris and sediment. Maintain as instructed by manufacturer.

Frequency: The system should be inspected semi-annually and maintained as required by the manufacturer.

Comments: The manufacturer typically commits to the first year of maintenance if their strict guidelines are followed for installation, which is highly encouraged to achieve peak performance. It is recommended that an outside agent who is familiar with the product be retained for future maintenance.

G. Outlet Control Devices

Preface: Outlet control devices are utilized for all BMPs on the project, to ensure proper drain down times.

Inspection: Inspection of orifices should be performed after each major rainfall event to ensure that stormwater runoff is able to discharge through the orifice and that it is not clogged.

Maintenance: The orifice cap should be removed and all debris flushed from the pipe prior to reinstalling the orifice cap. Gate Valves should be opened and flushed prior to reinstalling.

Frequency: The orifice control devices should be inspected semi-annually and maintained as needed.

Comments: This project uses gate valves for the grassed underdrained soil filters bio-filters. An orifice cap is utilized for the grassed underdrained soil filter. An orifice in a weir wall is used for the underground water quality storage chambers.

H. Litter

Litter should be removed as a matter of course by workers and as part of the ground's maintenance contract.

IV. PROGRAM ADMINISTRATION

A. General

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities. (Maintenance continues for the lifespan of the development in accordance with this document)

2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.

3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.

4. The administrative body must have the staff to accomplish the inspection and maintenance programs or must have authority to contract for the required services.

5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.

6. A qualified post construction inspector shall be retained by the Owner. His/her duties shall include preparing schedules for the Owner's maintenance, summarizing the results of this maintenance and preparing an annual report on the operation, maintenance, and repair of the stormwater system which must be copied to the City. (The Owner shall be responsible for retaining a separate entity to perform maintenance which cannot be performed by the management of building and property grounds.) This person shall also participate in troubleshooting of the stormwater management system if a problem develops.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. Record Keeping

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

Beyond the initial 5-year time span of the original approval and maintenance plan, the stormwater management system will need to be recertified through the Department every 5 years to confirm that there is conformance with the original permit documents. This process will ensure all systems function properly over time. This document will remain valid throughout any subsequent recertification processes.

C. Contract Services

In some instances, or at specific times, the Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document.

In such cases, the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Summary Checklist
Inspection and Maintenance

Stormwater Management System Maintenance Program Summary Checklist						
Item	**Commentary**	**Frequency**				
		Monthly	**Quarterly**	**Semi-Annual**	**Annual**	**Long Term**
Stormwater Inlets	Stormwater inlets allow flow entry from a surface swale to a piped system. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.		X		X Clearing	
Tributary Drainage System	Inspect to assure that the carrying capacity has not been diminished by debris, sediment or other hydraulic impediments.				X	
Grassed Underdrained Soil Filters	Remove debris from filter area. Inspect health of grass and filter media. Fix eroded areas as soon as possible. Snow storage is prohibited on the filter bed.			X		
Bio-Retention Filters	Remove debris from filter area. Inspect health of vegetation at beginning and end of year. Fix eroded areas as soon as possible. Replace mulch every year. Snow storage is prohibited on filter area.			X		X
Level Lip Spreaders	Inspect berms and ditches after rain events >1" and remove sediment. Check for signs of clogging and flush berm if necessary. Remove woody vegetation.			X		X
Orifice Control Devices	Inspect after major storm events and clear debris from orifice. May require flushing of pipes.			X		
Litter	Litter should be removed daily.					
Focalpoint System	Inspect after major storm events and clear debris. Refer to manufacturer guidelines.			X		X

APPENDIX B

Sample Inspection Logs

CITY HOMELESS SERVICES CENTER
PORTLAND, MAINE

STORMWATER MANAGEMENT
SAMPLE STORMWATER INSPECTION & MAINTENANCE LOG

This log is intended to accompany the Operation and Maintenance Manual for Stormwater Management and Related Facilities. All stormwater BMPs shall be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions of the DEP Stormwater Permit, shall conduct inspections of the facilities as described in the O&M Manual and on this form, and identified deficiencies must be corrected. This log shall be kept on file for a minimum of five (5) years.

A. General Information			
Project Name:		**Inspection Date:**	
Parcel/Lot:		**Current Weather:**	
BMP Owner:		**Date/Amount Last Precip.:**	
Owner Mailing Address:		**Inspection Company:**	
Owner Phone #:		**Inspection Co. Mailing Address:**	
Owner Email:		**Inspector Name:**	
		Inspector Phone #:	
		Inspector Email:	

B. Stormwater Inlets	**Observations**
Frequency: Annually in the spring	
Accumulated sediments from inflow channels and pipes between basins have been removed and legally disposed of	☐ Yes ☐ No ☐ NA
Floating debris and large sediment particles have been removed from inlets.	☐ Yes ☐ No ☐ NA
Stormwater Inlet Notes:	

C. Tributary Drainage System	**Observations**
Frequency: Annually spring or late fall and after heavy rains	
Remove and legally dispose of sediments	☐ Yes ☐ No ☐ NA
Remove floatables and other objects	☐ Yes ☐ No ☐ NA
Check for overgrown vegetation impeding flow	☐ Yes ☐ No ☐ NA
Check pipelines for siltation and clogging	☐ Yes ☐ No ☐ NA
Repair any slumping side slopes or erosion	☐ Yes ☐ No ☐ NA
Replace any riprap on areas where any underlying fabric or underlying gravel is exposed.	☐ Yes ☐ No ☐ NA
Tributary Drainage System Notes:	

D. Grassed underdrained Soil Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Grassed Underdrained Soil Filter Notes:	

D. Bio-Retention Filters	Observations
Frequency: Semi-annually	
Check that inlets are clear and flow into basin is not obstructed	☐ Yes ☐ No ☐ NA
Clear debris from filter basin area	☐ Yes ☐ No ☐ NA
Replace mulch once per year	☐ Yes ☐ No ☐ NA
Check health of vegetation	☐ Yes ☐ No ☐ NA
Check for erosion around basin area or at inlets	☐ Yes ☐ No ☐ NA
Check for signs of clogging, or water is not draining within 48-72 hours	☐ Yes ☐ No ☐ NA
Bio-Retention Filters Notes:	

E. Orifice Control Devices	Observations
Frequency: Semi-Annually	
Check for debris blocking orifice	☐ Yes ☐ No ☐ NA
If applicable, flush underdrain pipe	☐ Yes ☐ No ☐ NA
Orifice Control Devices Notes:	

APPENDIX C

Stormwater Drainage
System Maintenance Agreement

STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT

DC Predevelopment LLC/City of Portland
City of Portland, Maine – Homeless Services Center at 638 Riverside Street

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed **City Homeless Services Center ID PL-001682-2021 -** shown on the Overall Site Layout Plan, Grading, & Drainage Plan and Stormwater Management Plan (Exhibits A, B and C) prepared by Gorrill Palmer Consulting Engineers of 707 Sable Oaks Drive, South Portland, Maine dated last revised August 11, 2021 and pursuant to a condition thereof, DC Predevelopment LLC, a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of 100 Commercial Street, Suite 414, Portland, Maine 04101, the owner/operator of the Homeless Services Center facility, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

Maintenance Agreement

That it, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the bio-retention filter systems, Focalpoint® Bio-filtration system, roof line drip edge filter system, grassed underdrained soil filter system, roof drains and related onsite drainage infrastructure, (hereinafter collectively referred to as the "stormwater system"), as shown on the Stormwater Management Plan in Exhibit C and in strict compliance with the approved Stormwater Inspection and Maintenance Manual prepared for the Owner by Gorrill Palmer Consulting Engineers (copy attached in Exhibit D) and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance Log. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request and be made part of the annual Stormwater reporting duties of the applicant to the City.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner agrees to record a copy of this Agreement in the Cumberland County Registry of Deeds within thirty (30) days of final execution of this Agreement. The Owner further agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Services and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and liened if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax roles on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2021.

_____
(*name of company*)

_____
(*representative of owner, name and title*)

STATE OF MAINE
CUMBERLAND, ss. Date: _____

Personally appeared the above-named _____(*name and title*), and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

_____
Notary Public/Attorney at Law

Print name: _____

Exhibit A: Approved Site Layout Plan
Exhibit B: Approved Grading & Drainage Plan
Exhibit C: Stormwater Management Plan
Exhibit D: Approved Stormwater Inspection and Maintenance Manual

APPENDIX D

Permits for Project

(To be Added at a Subsequent Time)

ATTACHMENT E

AMISTAD
"People Helping People"

August 12, 2021

Amistad's outreach teams interviewed 37 individuals regarding Developers Collaborative's Homeless Services Center proposal, between June 21st and July 16th. All 37 respondents were adults currently experiencing homelessness, and were currently staying either at the Oxford Street Shelter, at a shelter satellite hotel, or at a campsite or other unsheltered arrangement.

Amistad's continuum of outreach programs is staffed by people with lived experience of substance use disorder, mental illness, homelessness, hunger, and other life challenges. The individuals conducting the surveys function as peers and allies with those they support, and their sole objective in conducting the surveys was to amplify the voices of those who are currently unsheltered or currently utilizing Portland's support system for those experiencing homelessness.

Participants were presented with the proposal, and asked to support the process with their thoughts and responses to the following questions:

NOTE: Participants were invited to add comments along with their responses. Specific comments from individual respondents have been recorded but are not included with this summary. The full report, with comments included, will be presented to the HSC design team to aid with their ongoing construction and design efforts.

- Does this design and location seem like it would be a safe place for you to be?
  YES: **28**
  NO: **5**
  UNSURE: **4**

  Does it seem safe for others?
  YES: **26**
  NO: **6**
  UNSURE: **5**

- If you stayed at this shelter, do you think you would hang around all day, or leave during the day and come back at night?
  STAY ALL DAY: **12**
  LEAVE AND RETURN: **9**
  UNSURE or IT WOULD BE DIFFERENT DAY TO DAY: **16**

- There are going to be meals, healthcare services, support groups, housing supports, and one-on-one peer support in the facility. How important are these to you, on a scale of 1 to 5? (1 = not important; 2 = somewhat important; 3 = important, but not very important; 4 = very important; 5 = extremely important)

  Average response:

  Meals: **4.9**

  Healthcare services: **4.7**

  Support groups: **4.2**

  Housing supports: **4.9**

  One-on-one peer support **4.7**

- There are several design features meant to create an environment that feels open, warm, safe, and welcoming, including the concepts below. Do you think these features will help make the place feel open, warm, safe, and welcoming?

˜ Clear sightlines

YES: **30**

NO: **3**

UNSURE: **4**

˜ High ceilings

YES: **31**

NO: **2**

UNSURE: **4**

˜ Natural light

YES: **31**

NO: **0**

UNSURE: **6**

˜ Minimal barriers/Easy-to-navigate space

YES: **35**

NO: **1**

UNSURE: **1**

˜ Efforts to reduce perceived crowdedness within the design

YES: **27**

NO: **3**

UNSURE: **7**

˜ Designated areas that provide a sense of privacy

YES: **35**

NO: **0**

UNSURE: **2**

- Does this building seem too big?

YES: **1**

NO: **33**

UNSURE: **3**

Do the sleeping areas look too big?

YES: **2**

NO: **32**

UNSURE **3**

- Do you think the locker space is adequate?

YES: **18**

NO: **10**

UNSURE: **9**

- Given that the sleeping areas are closed during the day, that means that the indoor space during the day is limited to the Day Room/Cafeteria (the dining tables will be broken down between meals), the entry area, and potentially some intentional space in the hallways. Does this seem like enough space for you, given the number of people that may be in the building at the same time?

YES: **20**

NO: **5**

UNSURE: **12**

- Do you think that transportation during the day will be a problem for you?

YES: **8**

NO: **21**

UNSURE: **8**

- What other features or amenities would help make this HSC positive and successful?

  NOTE: 14 participants responded to this open question. The number (#) following each suggestion refers to the number of respondents who offered the suggestion or notably similar suggestion.

  - √ A clearly designated and covered outdoor smoking area (6)
  - √ Garden beds (4)
  - √ Stipends for live music played by HSC guests (2)
  - √ Stipends for art created for the space by HSC guests (3)
  - √ Onsite syringe exchange (21)
  - √ Flowers and shade trees (5)
  - √ A small library, or having the Book-Mobile come regularly (7)
  - √ Employment counseling/support (5)
  - √ Basketball court (4)
  - √ Hammocks (3)
  - √ Organized activities and outings during the day (3)

- Please share any other considerations or thoughts.

  NOTE: 8 participants shared concluding thoughts. The number (#) following each thought refers to the number of respondents who offered the thought or notably similar thought.

- Staff should be compassionate and trained to work effectively with people who have been through a lot. (7)
- Having to go through security makes it feel like jail. (1)
- If they could build a full-size storage facility on the property that would help so many of us out. (1)
- I'm someone who probably won't ever sleep at a shelter, no matter how nice it is. If they had a safe, designated space for people to sleep outdoors I would probably do it, because I'm sick of getting moved around all the time. (1)
- Good food is really important. I hope they won't try to save on the cost of food, because when people eat like animals they act like animals. (1)

Summary of First Listening Session, 8/9/21

On August 9th, Amistad hosted a listening session at our Peer Support and Recovery Center, with the intention of providing an opportunity for "peers" to engage in direct communication with the HSC development and design team, and to meaningfully impact the developing HSC concept and its' potential features. Peers, in this case, refers to those who have experienced homelessness in Portland. The group in attendance were individuals whose experiences of homelessness have been chronic and re-occurring. The participating peers shared perspectives that drew on their experiences staying at the Oxford Street Shelter as well as periods of being unsheltered while experiencing homelessness. The group met for three hours with Kevin Bunker from the Developers Collaborative and his design team, and provided a range of opinions and suggestions. During the course of the listening session, attending peers shared the following:

- A desire for multiple outdoor seating arrangements which would provide shelter from the elements and include a possible winter heating source. The idea of having separate outdoor shelters would provide peers with social choice and space for different types of relating. Moreover, outdoor seating would need to be accommodating to daytime resting. Peers also noted the importance of table surfaces throughout the outdoor space.

- Peers brought up the following outdoor amenities as being important:

  - access to drinking water and handwashing stations

- charging stations for cellphones
- an alert system which would be installed on the walkway to the facility for peers arriving to the shelter after dark
- outdoor clocks
- permanent bike locks
- secure outdoor storage

- Peers discussed the pros and cons of a fencing system. Overall, it was felt that NOT having a fencing system would increase the safety of guests, as a fence would limit access to anyone experiencing a medical emergency.

- Peers proposed a memorial space for community members to reflect on personal and collective loss throughout our community. It felt important that the memorial space be in a non-central location as to provide guests with the choice to encounter it or not.

- Peers echoed the designer's idea of a chalk-wall as a space for community expression.

- The full notes from the session are attached as Exhibit A.

Exhibit A
Homeless Services Center Focus Group Meeting – Site Design
8/9/2021
Attendees: 7 individuals currently or recently experiencing homelessness; Amistad peer support facilitators
Attendees from Design Team: Nick Aceto, Grace McNeill, Lisa Whited, and Kevin Bunker

- People who choose to stay outside generally don't want to be outside—they want to not be in the shelter system for a variety of reasons (CTO)
- Simple basic needs—bathrooms and water
- Space for trans and nonbinary people?
- Comfort is a major need (warm, comfortable spaces make a huge difference when you're constantly physically and mentally exhausted)
    - There is a certain comfort in a little leisure
- Stress and addiction makes you behave differently
- More outdoor and comfortable covered spaces
- Perhaps include a less harsh boundary (than a fence) to indicate the edge of property along the north/east side
- Outdoor phone charging and electrical outlets
- Plenty of trash cans
- Access to sharps disposal?
- Include space for shopping cart or other type of cart storage amongst bike storage?
- Need larger storage spaces for backpacks and other belongings
- Consider moveable or fixed furniture? Or both?
- Plenty of covered spaces—mostly for smoking, but also spaces for people to spread out a little
- Will there be an entrance area or separate boundary/area on the property that isn't managed by the city? Likely no.
- Need temporary cover for multiple days of foul weather
- Make sure the site is accessible for those with mobility issues
- Need proper lighting outdoors and indoors—can affect mood and safety of space
- Outdoor showers and bathrooms? Probably unnecessary.
- Raised garden beds had a good reception
- Access to drinking water outside—water bottle filling station?
- Need immobile cigarette butt disposal
- Want to have more activities that don't require staff interaction
- More small covered seating areas like gazebos instead of stage?
- More chalkboard spaces or graffiti tagging wall?
- Some kind of outdoor heating in the seating areas would be good
- Purposeful, built-in spaces that are always there and not controlled by staff will add a sense of autonomy (don't need to wait for staff to put chairs out)
- Want lots of spaces to be able to plug phones in

- Simple digital clocks around outside (to help people keep track of time to make it to relevant appointments)
- Consider including a separate memorial space for those lost in the community (must be a space that is optional to go to—don't want to make people uncomfortable or bring up trauma unnecessarily)
- Might need more than 5 parking spaces for guests— those with cars don't want to lose them and will need somewhere they can leave them safely. Should be able to add parking in future if this proves to be the case.
- Outside tv space? Or projector wall?
- Vending machines?
- Access to strong wifi outside is a must

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

August 31, 2021

Mr. Matt Grooms
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application – Letter of Response #2
Applicants: DC Predevelopment LLC and City of Portland

Dear Matt:

On behalf of **DC Predevelopment LLC and City of Portland (Applicants)**, our office has received and reviewed the latest Planning Staff review comments from your office on August 24, 2021. We offer the following responses to address the comments and questions from the second workshop meeting.

STAFF REPORT COMMENTS

The following comments were outlined in the Staff report to the Planning Board as requiring some additional information:

Site Access, Transportation and Parking

1. *TDM Plan has been reviewed by Bruce Hyman, Transportation Program Manager, who has provided the following comments (Attachment 3).*

   - *Discussions of Safety should include nearby segments on Forest Ave and the Riverside/Forest Ave intersection which are both high crash locations for 2018-2020.*
   - *The adequacy of lighting along Forest Avenue from the bus stop to the HSC site along the designated walking route shall be evaluated and supplemented by additional cobra head lighting if necessary.*
   - *TDM plan should note reduced transit intervals during off-peak schedule.*
   - *TDM plan should provide a timeframe by when parking reduction targets may be met, ex. Within 3 years.*
   - *The specifics of the existing discount/incentives should be specified to determine their adequacy.*
   - *The commitment to construction of a continuous sidewalk of adequate width on the west side of Riverside St is to be reiterated as an infrastructure strategy. Changes to sidewalks and crosswalks on Forest Avenue and the Forest/Riverside intersection may be needed based on the HCLs there.*

- *It would be desirable to make bicycle and walking safety information and equipment available to clients such as reflective material to add to clothing, reflectors for bicycles, headlights/taillights. It may be possible to partner with an organization such as the Gear Hub for bike repair training sessions so clients can become more self-sufficient for needed repairs.*

- *TDM Plan should discuss barriers to overall access to the HSC not just for TDM/alternative modes. The type of barriers should be listed (lack of access to bicycles, safety of routes to- from the facility, lack of transit passes, shuttle hours, etc.).*

- *TDM Plan makes reference to preferential parking for carpool parking but I did not see signage or pavement markings denoting their location. These should be located as near to the building entrance as practicable to incentivize the use of carpool.*

- *Staff would like to review and approve the bike racks to be used and their spacing/layout to ensure full functionality and security before the design of the pavilion is finalized.*

Response: Please see attached revised Traffic Demand Management Plan (also included as an Exhibit in the Management Plan) which addresses the comments above:

- **We have added accident data for the Intersection of Forest/Riverside and also for the length of Forest Avenue from the intersection south to the transit stop locations. The intersection is considered a high accident location, while both Riverside Street and Forest Ave near the intersection are not considered high accident locations.**
- **We have contacted Kevin Thomas of the City's DPW to verify the process for installing additional street lighting on the existing utility poles that are located along the west side of Riverside Street. The installation of additional overhead street lighting is acceptable as a Condition of Approval.**
- **The TDM has been updated to note the various weekday and weekend transit schedules. Transit service is reduced on Saturday and Sunday.**
- **A target timeframe of 3 years for parking reductions is now included in the plan.**
- **Additional information on incentives is included in the plan. Free METRO bus passes to shelter guests will continue to be available as they currently are today.**
- **The project will provide a 6' wide sidewalk on the west side of Riverside Street from the site to the Forest Avenue intersection. The project will also be responsible to improve the vehicle and pedestrian signal operations at the intersection to include updated pedestrian flashing equipment and coordination for phasing to include right turn movement prohibition during pedestrian crossings.**
- **Provisions for safety equipment to be made available are in the TDM.**
- **Statements regarding the barriers to TDM and how they can be overcome are now included in the TDM.**

- **Site signage for preferential parking is now included on the plan.**
- **Details for the bike racks and other site amenities are included on the landscape plans.**

2. *… Staff also asked that safe and appropriate pedestrian routes from existing transit stops be identified and encouraged through the use of wayfinding signage.*

Response: A Wayfinding Plan accompanies this response letter. The Plan includes the suggested locations for various wayfinding signs and pavement markings that will advise Service Center travelers the safe walking route from the Forest Ave transit stops to/from the Center's site on Riverside Street. Final details of wayfinding signage are acceptable as a Condition of Approval.

4. *The applicant commits to construction of an ADA accessible route between the HSC site and the nearest public transit stops along Forest Avenue. The City's consulting traffic engineer, Tom Errico, P.E. with T.Y. Lin, has provided the following comments (Attachment 2):*

   - *The applicant is proposing to construct a sidewalk along Riverside Street for a continuous pedestrian connection between the site and the METRO bus stops on Forest Avenue. In addition to constructing a new sidewalk, the applicant should upgrade existing sidewalks to be fully ADA compliant. I would also note that there may be a need for a wider sidewalk given user needs.*
   - *As noted, the pedestrian traffic signal equipment at the Forest Avenue/Riverside Street intersection will need to be upgraded. I will provide specifications in the future.*
   - *The applicant shall provide a conceptual pedestrian wayfinding signage system for review as it related to directional signage between the site and METRO stops.*

   The standard 5' width of the sidewalk suggested to be constructed along the west side of Riverside should be assessed for its adequacy assuming a high volume of usage, two-way pedestrian traffic and the potential for usage of push/luggage carts by clients - additional width above 5' should be considered - portions of the existing sidewalk appear narrow as well (possibly narrower than 5').

Response: As earlier stated, a new 6' wide paved sidewalk will be provided on the west side of Riverside Street for the full length from the site entrance to the Forest Avenue intersection. We believe that 6' is adequate for the proposed use and it will allow for adequate pass-by of walkers in both directions, including those with carts or similar personal items.

The existing signal equipment will also be updated to include, blank out signage for prohibiting right turn movements that might otherwise conflict with pedestrian crossings. The applicant is amenable to working with the traffic consultant and DPW staff at the appropriate time for these improvements in advance of a certificate of occupancy for the development.

The accompanying Wayfinding Plan provides suggested locations and signage options for consideration.

Site Design and Landscaping

1. *Material information has now been provided; however, staff are requesting that the building elevations themselves be updated to include material labels.*

Response: The accompanying architectural elevations by Winton Scott Architects provides the requested information.

2. *Staff held a second design review of the project, and found that the addition of new points of ingress/egress between the building and outdoor programmed areas addressed this comment, particularly given that such outdoor areas are intended as only accessible to shelter clients, staff and on-site service providers.*

Response: No further response required.

3. *City staff are now requesting that a fence be provided to delineate the western and northern property boundary, where the project site abuts conservation land. This will help limit the permeability of the site and deter against unauthorized camping in adjacent woodlands. Details regarding the fence shall be provided as part of a future submission.*

Response: The updated Site Plans and the Landscape Plan and details provide details and locations for the fence, as suggested during the second workshop meeting. The fence details and location also reflect coordination with the Portland Police Department, Department of Parks and Recreation, and Portland Trails. The applicant's team has also met with the City Arborist, Jeff Tarling, regarding the proposed plantings, their locations, and the surrounding slope areas and he had indicated acceptance of the plans as now prepared. The slopes are naturally vegetated now and will be substantially outside of the limits of work for the project.

4. *Coordinate with City on placement and design of street and wayfinding signage. Staff has requested a concept wayfinding signage program for further evaluation.*

Response: A Wayfinding Plan has been prepared and accompanies this submission. The plan reflects input from Bruce Hyman and Tom Errico.

Site Location of Development (SLOD), Stormwater, Grading, and Utilities

2. *The City's Consulting Civil Engineer, Lauren Swett, P.E. with Woodard and Curran, has reviewed the stormwater plans and report provided, and has provided the following comments (Attachment 5):*

   - *The proposed Grassed Underdrained Soil Filter is shown on the landscaping plan with Dogwood shrub plantings, similar to the bioretention filters. While I believe this material is appropriate for the bioretention filters which generally have 6" or so of water ponding, the soil filter, which could have up to 18" of water ponding should be planted with grass.*
   - *An emergency spillway should be provided for the underdrained soil filter.*
   - *I would also recommend that similar spillways be provided for the bioretention cells given their location discharging to the steep slopes. These could potentially be located in line with the outlets to utilize the rip rap for outlet and emergency overflow.*

- *A final letter from the FocalPoint manufacturer confirming the system's design should be provided.*
- *Further information on roof drainage/roof slopes should be provided. Based on the originally submitted building elevations, I was not able to see how the roof drain will drain to the proposed drip edge.*
- *A grasspave material has been noted for the fire truck pathway. The Applicant should confirm that the selected system has been designed for the fire truck loading. There are two details provided, one on the civil and one on the landscape plan.*

Response: The following responses are provided for each of the bulleted comments:

- **The soil filters will be planted with a native grass cover as now shown on the landscape plans by ALA.**
- **The Grading and Drainage plan and Stormwater Management Plans have been updated to include small spillways for each BMP.**
- **The Focal Point information was previously contained in the Stormwater Management Report as an attachment. We have also included in this response package for ease of review.**
- **The rear of the building contains a pitched roof that will shed runoff toward the drip edge at the back of the building. Roof drains will be provided for the flat roof areas of the building. The drains will be piped to the Focal Point at the front of the site. This has been reflected on the architectural plans. We have revised the stormwater management summary as a greater portion of the roof will drain to the drip edge filter rather than the Focalpoint. There are no changes to the treatment percentages offered as part of the stormwater management plan**
- **The grasspave system is specified as the Ecoraster E40 that is rated for emergency and fire apparatus. The applicant reserves the right to substitute an "or equal" product that provides equivalent loading capacity.**

4. *A grease trap has now been provided, however details on the grease interceptor should be revised to meet City standards, which require a baffle wall separating the unit into 2/3 and 1/3 areas (Attachment 4).*

Response: The grease trap detail has been updated to meet the City standards including a double baffle system inside the structure.

7. *Additional plantings have been provided, and the City Staff are continuing to review the grading and drainage plans to ensure the slope at the rear of the property is adequately stable.*

Response: ALA Architects has discussed these conditions with Jeff Tarling. It has been noted that the existing slopes are located beyond the limit of work for the Homeless Service Center and thus the slopes will not be disturbed during of construction. As evidenced below in the photographs the slopes are vegetated with a mix of meadow and intermittent young saplings, alders and various tree species.

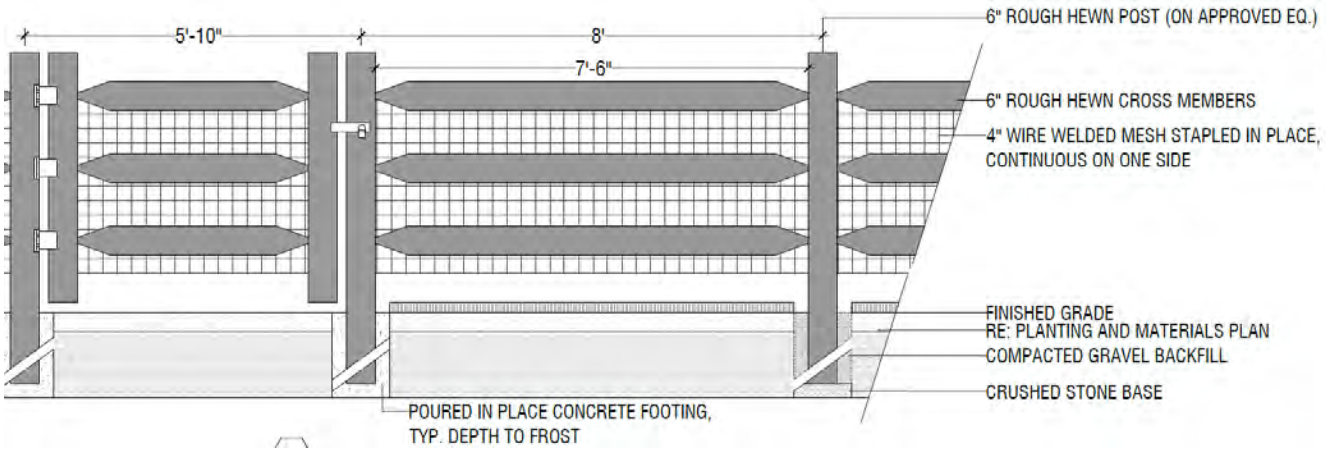
General Comments Posed by Planning Board and Public

2. *Identify all existing fencing on/near the site for other lots.*

… Staff Response: As noted at the July 27th workshop, there is no requirement that the proposed development construct a perimeter fence for either buffering or security purposes. The applicant's proposal to ensure that fencing is erected along the entirety of the property boundary shared with existing development is responsive to abutter concerns, and therefore is appropriate.

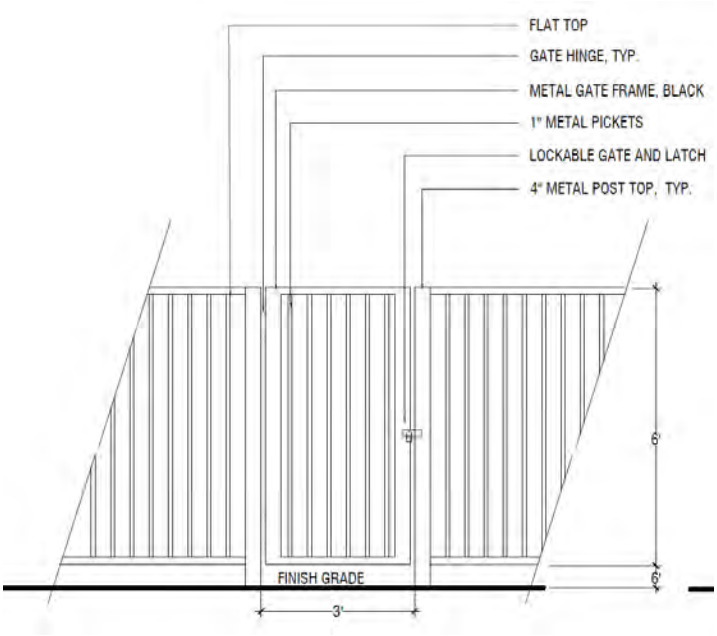
In addition, staff from Parks and Recreation have requested that additional fencing be erected to delineate the western and northern property boundary, in order to decrease permeability between the HSC and surrounding woodlands. Staff are coordinating with the applicant to determine the most appropriate form of fencing to ensure visual transparency, manage access to nearby trails, and deter unauthorized camping on adjacent conservation land.

Response: Fencing locations have been added to the Site Plan and Landscape Plans. Details include the use of a low wood post fence along the north side of the site and a traditional metal picket fence on the south and west perimeters. The applicant has committed to filling all gaps in perimeter fencing along the abutting properties to assure safety and security between the properties. The images on the following pages depict the proposed fencing styles. Chain link fencing to match the existing on the abutting properties will also be used as needed.



3. Show solid waste enclosure.

Response: A detail for the wood style solid waste enclosure has been added to the civil detail sheets Drawing C-8.1.



4. Management Plan updates.

Response: Per Board comment, the Management Plan has been updated with more detail on the HSC's conflict and neighborhood resolution procedures. The Plan has also been updated to reflect that the monitoring program will include the Portland Trails system. A copy of the updated Management Plan has been uploaded to eplan for staff and Board review.

5. August 19, 2021 Police Department Memorandum.

Response: The Police Department outlined five (5) potential safety issues that the development team has addressed as follows:

1) **The Management Plan has been updated to include monitoring of the Portland trails network and to maintain full time surveillance around the site. The inclusion of a perimeter fence system will also help address the potential for safety.**
2) **Video surveillance will be utilized for both interior and exterior activities. The HSS staff will work diligently with the Police Department to provide sensible and sensitive solutions for video surveillance. A condition of approval involving further/ongoing cooperation with the Police Department is appropriate.**
3) **An emergency call box has been positioned on the main entrance walkway halfway between the street and the building entrance.**
4) **The site planning and landscaping utilize Crime Prevention through Environmental Design (CPTED) concepts including low bushes and shrubbery among other techniques to provide for a safe onsite environment.**
5) **The team is committed to providing consistent messaging and enforcement regarding guest behavior and specifically interaction with the neighborhood. The Management Plan includes updates on this concerns as previously outlined and now contained in the updated Plan.**

We look forward to the Planning Staff and peer review final consideration of these application materials. We appreciate the various aspects of input received over the past month, all of which lends to a stronger plan and approach for this vitally important project. We look forward to a finding that the project is ready for a Public Hearing and possible Planning Board consideration for approval.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Uploads to Eplan:

- Stormwater Management Summary & Focal Point Information
- Updated Management Plan
- Architectural Elevation
- Civil Site Plans and Detail
- Landscape Plans and Details

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigfridson
Kristen Dow, City of Portland
Steve Weatherhead, Winton Scott Architects
Nick Aceto, ALA

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\P Applications\Local\major site plan\LOR\LOR#2\LOR2_grooms_homeless center_08.31.2021.docx

ATTACHMENTS

DESIGN WORKSHEET

FOCALPOINT

MAINE CHAPTER 500 PROJECTS

1. **Determine FocalPoint bed area (minimum 174 sf/acre of impervious area - ex: 0.2 acres = 35 sf) See step 2 to determine if minimum size is appropriate.**
   - Tributary impervious area: = 0.86 ac **(A)**
   - Tributary pervious area: = 0.56 ac **(B)**
   - Minimum FocalPoint bed area required: **= ((A x 1.0) + (B x 0.4)) * 174** = 189 sf
   - FocalPoint bed area provided: = 200 sf
   - Dimensions of proposed FocalPoint: = 10 ft x 20 ft

2. **A 0.95-in Type III 24-hr rainfall event shall be modelled to demonstrate the entire storm volume is treated prior to activation of the overflow (typically set at 6 - 12 in above the mulch)**
   - Temporary storage depth provided: = 6 in (typically 6 - 12 in)
   - Temporary storage volume provided at above depth: = 400 ft^3
   - Peak ponding depth from 0.95-in 24-hr storm event: = below mulch in

3. **Ratio of the surface area of the filter media (sf) to the temporary ponding volume (cf) shall be no less than 1:5**
   - Ratio of FocalPoint bed area: = 1 : 2

4. **Subsurface R-Tank or chamber treatment row must be sized to treat the peak flow from a 1-yr 24-hr storm event.**
   - 1-yr 24-hr peak flowrate: = 1.82 cfs
   - Chamber/module selected:
     - Cultec 330 XLHD (1 chamber per 0.227 cfs) ☐
     - Cultec 150 XLHD (1 chamber per 0.185 cfs) ☐
     - R-Tank modules (HD singles or taller - 1 module per 0.02 cfs) ☑
   - Number of chamber/modules required: = 91

5. **Controlled release of the channel protection over 24 - 48 hrs**
   - Controlled release of the channel protection volume is being achieved by:
     - Expanded subsurface storage basin with outlet control structure (OCS) ☐
     - Surface detention basin with OCS ☐

6. **A landscape plan for the FocalPoint bed area has been prepared** ☐

7. **Design review and installation oversight by manufacturer's representative**
   - The design has been reviewed by ACF Environmental ☐
   - Engineer will coordinate installation inspection with ACF Environmental ☐

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com

DESIGNING WITH FOCALPOINT IN MAINE

The Maine Department of Environmental Protection has approved the FocalPoint (High Performance Modular Biofiltration System) for use on Chapter 500 site development projects in the State of Maine.

SIZING CRITERIA SUMMARY

- The surface area of the media within FocalPoint must be a minimum of 174 sf per 1.0 acre of impervious area (26 sf per 0.15 acres). Thickness of the media is to be no less than 1.5 ft (18 in).
- The system must be modelled in HydroCAD (or similar TR-55 modeling software) to demonstrate that the entire volume of a 0.95-in Type III 24-hr storm is treated prior to activation of the bypass/overflow (typically set at 6 - 12 in above the mulch surface).
- The system must be placed in-line with a subsurface chamber based treatment row that is approved by the department. The treatment row will be sized to treat the peak flow from a 1-year, 24-hour storm event.
- Additional storage downstream of the FocalPoint and treatment row will be required to store at least the sum of 1.0 in of runoff from the impervious areas and 0.4 in of runoff from the landscaped areas that drain to the system (unless attenuation of the channel protection volume is not required) and control to release to drain between 24 - 48 hrs.

FOCALPOINT SYSTEMS:

FOCALPOINT ACCESSORIES:

Pretreatment - Rain Guardian Turret

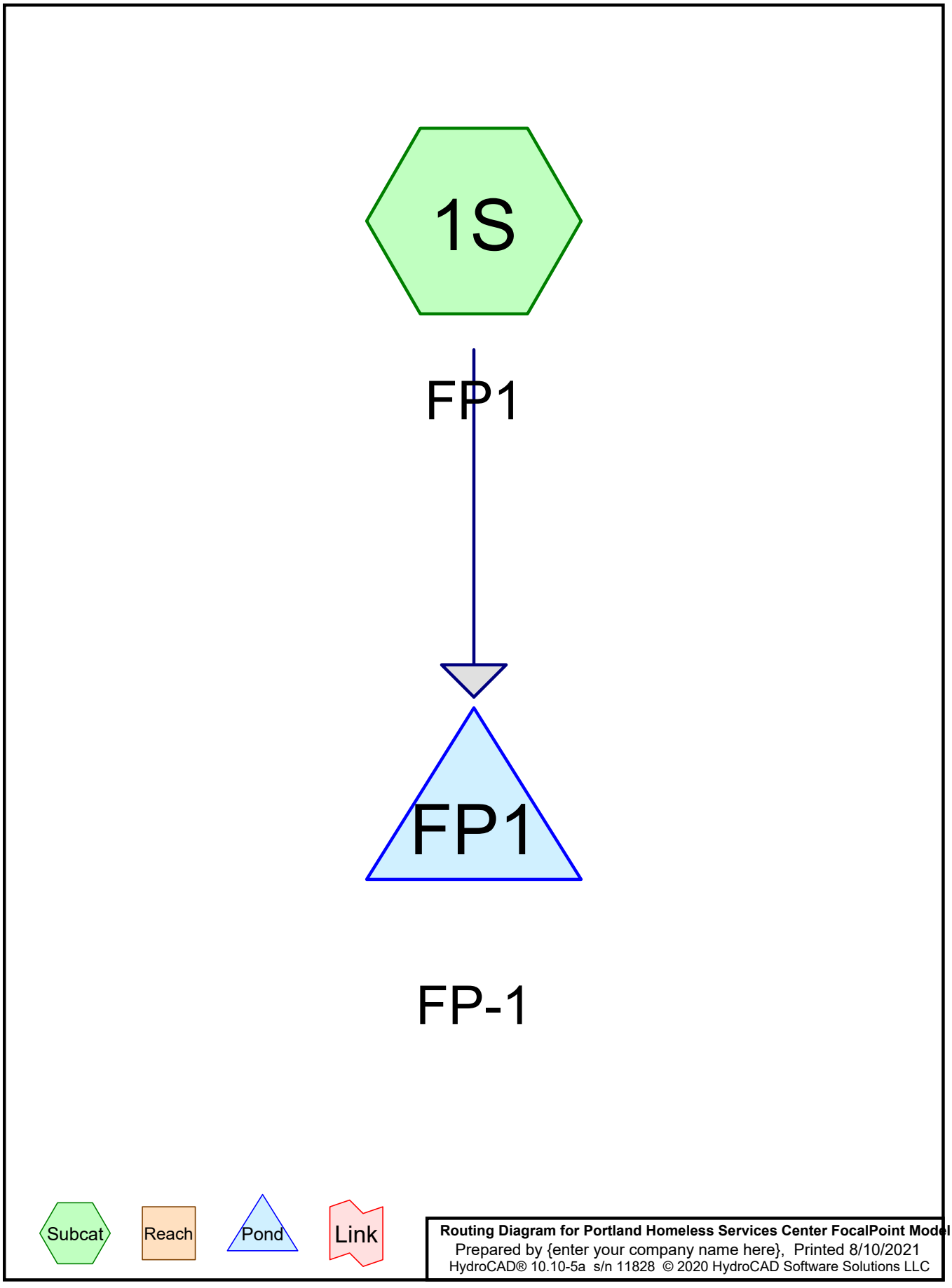
Pretreatment - Rain Guardian Foxhole

Pretreatment - PreTx

Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com


1S
FP1
FP1
FP-1
Subcat
Reach
Pond
Link
Routing Diagram for Portland Homeless Services Center FocalPoint Model
Prepared by {enter your company name here}, Printed 8/10/2021
HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: FP1

Runoff = 0.10 cfs @ 12.15 hrs, Volume= 501 cf, Depth> 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 0.95-in Rainfall=0.95"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 0.10" for 0.95-in event
Inflow = 0.10 cfs @ 12.15 hrs, Volume= 501 cf
Outflow = 0.10 cfs @ 12.15 hrs, Volume= 500 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.10 cfs @ 12.15 hrs, Volume= 500 cf
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.77' @ 12.15 hrs Surf.Area= 200 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 499 cf (100% of inflow)
Center-of-Mass det. time= 0.1 min (864.7 - 864.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.15 hrs HW=61.77' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.75' (Free Discharge)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 1S: FP1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf, Depth> 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-YR Rainfall=2.60"

Area (sf)	CN	Description
37,261	98	Paved parking, HSG B
24,258	61	>75% Grass cover, Good, HSG B
61,519	83	Weighted Average
24,258		39.43% Pervious Area
37,261		60.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY**

Summary for Pond FP1: FP-1

Inflow Area = 61,519 sf, 60.57% Impervious, Inflow Depth > 1.05" for 1-YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,358 cf
Outflow = 1.29 cfs @ 12.20 hrs, Volume= 5,358 cf, Atten= 29%, Lag= 6.0 min
Primary = 0.46 cfs @ 11.90 hrs, Volume= 4,675 cf
Secondary = 0.83 cfs @ 12.20 hrs, Volume= 683 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.62' @ 12.20 hrs Surf.Area= 200 sf Storage= 663 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.4 min (809.5 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.75'	90 cf	**10.00'W x 20.00'L x 2.25'H FocalPoint** 450 cf Overall x 20.0% Voids
#2	64.00'	1,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		1,340 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	200	0	0
64.50	1,400	400	400
65.00	2,000	850	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	61.75'	**100.000 in/hr Exfiltration over Surface area** Phase-In= 0.10'
#2	Secondary	64.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.46 cfs @ 11.90 hrs HW=62.10' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Secondary OutFlow Max=0.82 cfs @ 12.20 hrs HW=64.62' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.82 cfs @ 1.12 fps)

Portland Homeless Service Center - Stormwater Management Summary

Revised 08.31.2021
08.11.2021
Designed By: KAB
Checked By: SRB

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	35078	0	35,078	35,078	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	52954	22,963	75,917	52,954	22,963
103a	0	7,664	7,664	0	0
103b	34364	24,258	58,622	34,364	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,178	5,728	3,107	3,226
101e	Roof Line Drip Edge Filter	2,923	3,273	-	-
101a, 102a, 103a, 104 (untreated)	-	-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

City of Portland Homeless Services Center

Management Plan

I. Overview:

Description:

The City of Portland Homeless Services Center at 654 Riverside Street will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18.

This will continue the city's mission of providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. In partnership with area service providers, we provide services to our consumers with an emphasis on compassion, dignity, respect and the highest standard professional demeanor toward this mission.

In the calendar year 2019 (last full year pre-Covid) the City served nearly 1,700 unduplicated individuals providing over 71,000 bed nights.

The Oxford Street Shelter currently serves a diverse population and we intend to continue that at our Homeless Services Center. We serve homeless women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, as well as those struggling with substance use and mental health. The Homeless Services Center has the capacity to serve an entire community's needs, complementing the smaller specialized shelters in the city and enhancing their capacity through a robust referral process maximizing resources across our system. This provides the highest level of service by those most equipped to help. This Homeless Services Center is designed to be compatible with the latest thinking of service provision, as the hub in the hub and spoke model as detailed in the work of the Statewide Homeless Council.

History of Oxford Street Shelter:

The Oxford Street Shelter opened in December of 1989. At 50 beds, it was the largest adult shelter in the state of Maine. Beds increased to 62 four years later and again to 80 beds in 1996 after leasing the adjacent building due to an increase in homelessness. The City and shelter staff continued to step up and meet community needs as they increased, seeing a rise in census in 1998 and 1999 until reaching 154 beds in 2000. Need continued to increase and community overflows were opened at the Salvation Army and the Preble Street Resource Center. Realizing the limitations of our space on an operational level (not having enough beds, difficulties being spread over multiple floors, transitioning from dorm to day use, etc.) and at the client experience level (not having the dignity of sleeping in a bed, needing to move throughout the day to meet basic needs of food and shelter, etc.), City

leadership started exploring the best way to improve our services and the lives of the people we serve. The process of this pursuit is outlined in **Exhibit 1**.

Impacts of COVID:

Prior to the COVID-19 Pandemic, our current facility at 203 Oxford Street was able to accommodate 154 individuals for overnight shelter. We utilized the Preble Street Resource Center to provide overnight accommodations for additional overflow space increasing capacity by 75 male beds. Our client's additionally utilized Preble Street's congregate soup kitchen for meal services.

At the onset of the pandemic, Oxford Street Shelter consulted with the CDC and reduced its maximum capacity to 75 beds based on their recommendations. Due to social distancing requirements causing the closure of our overflow space and meal facility, we opened a second 24 hour, socially distanced shelter. In addition, our staff began picking up meals three times a day from the Preble Street Soup kitchen and delivering them to our two facilities.

The pandemic has had a large influence on the design of the Homeless Services Center. The design team was given guidance from City HHS staff based on National CDC recommendations for shelter operations during COVID 19.The footprint of the center has increased to allow for appropriate social distancing in areas where guests will be frequenting, including both the dining and sleeping areas. CDC space recommendations equate to 113 s.f. of floor area be allocated per person in sleeping areas. There is a total bed count of 208 beds with a total dormitory floor area of 22,587 s.f. of floor area in the dormitories which equals 108.6 s.f. per bed. During periods of active COVID transmission, facility capacity would need to be reduced slightly to 200 beds to meet the 113 s.f. requirement.

All beds are arranged to maintain a minimum of 6' distance between guests' heads while sleeping. There are 7' to 8' distances typically throughout the dormitories and beds are arranged to allow for head to toe organization. Beds will also be arranged in clusters separated by low partitions to afford some privacy and to provide a physical barrier between guests to further protect against COVID transmission. The CDC recommendations also include maintaining 6' distances between guests in eating areas. To accommodate this, the cafeteria would provide food service in two sittings to allow for spreading out of seats at the tables.

The CDC also provides guidance for HVAC systems to minimize transmission that include: maximization of outside air intake; use of HEPA level filters that are changed out at regular intervals; supplemental filtering systems including ultraviolet germicidal irradiation cleaning systems; humidity control systems. Design staff will be working with our HVAC engineering consultant to review system options and implement cost effective solutions to meeting CDC recommendations.

During the pandemic, our clients were grateful. While many of our community partners understandably closed programs or reduced hours, the City shelter remained open. Many of the spaces individuals had utilized for years were no longer available to them. At Oxford Street, many clients slept, connected with staff for their daily needs and ate their meals in metal folding chairs all in the same room. We feel strongly that clients deserve a better and more dignified space. We have seen that a more dignified space allows clients to feel more self-worth and motivation towards moving forward from temporary emergency shelter.

Lessons Learned:

Running two 24 hour facilities during the pandemic created challenges but also presented learning opportunities. Staff had been envisioning our new Homeless Services Center with a more dignified approach to shelter for some time, well before we began operating a temporary shelter at the Portland Expo.

At the time that we began utilizing the Expo, staff were amazed in the ways in which the open space could be used to create a more all-inclusive shelter: the layout of the Expo building with open site lines, the ability for clients to have more privacy and not need to line up outside, the room to have both day and night spaces set up without needing to be broken down for cleaning (thus shuffling clients around throughout the day), the capacity for providers to meet with their clients on-site, and the space for clients to store their belongings. This aligned with many of our goals for the Homeless Services Center.

Vision of a Homeless Services Center:

It is the goal of the City of Portland to open a new state-of-the-art, one-story, adult emergency shelter to replace the Oxford Street Shelter. The new shelter will be open 24-hours a day, 7-days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 2** for a more comprehensive list of services.

The City of Portland's shelter clients and valued staff deserve to live and work in a respectful and safe environment. We will no longer allow some of our most vulnerable community members to live in inadequate conditions and in locations where they are easily abused, taken advantage of, and judged for their perceived shortcomings.

The new location will be a one story building easily accessible to all. Our clients will be able to access the space 24-hours a day and will not need to leave with their belongings. They will have a large day space with an area for meal services including a kitchen where staff will serve meals. We will have indoor storage lockers, bathrooms, laundry services, and clients will be assigned to beds rather than mats on the floor. Sleeping areas will have beds where each individual will have a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The bed layout will provide increased ability to socially distance and will provide an increased sense of privacy, as beds will be set in quads.

Additionally, our new location will have a full service federally qualified health clinic, offering medical, mental health, substance use treatment, and dental services on-site. We will have small group rooms and offices for peer support and community providers to access, greatly improving the service delivery model and community collaboration.

Importantly, the design of the new facility has been informed not only by the multi-year planning process described elsewhere in this document, but by actual potential users of the facility. As part of the planning and design process, Amistad has conducted current client surveys regarding aspects of the new facility. Additionally, Amistad facilitated a design listening session with unhoused peer groups, who had a chance to offer direct feedback to the developer and the design team in attendance. Further workshops will be held on detailed design (during the architectural design development phase) and on operations (during the construction phase). Amistad's work has been submitted under separate cover as part of the Planning Board application.

Housing Services:

The City is dedicated to providing housing services to all who access our facility. While the pandemic made housing access difficult, our established relationships with landlords continued to afford our clients options to secure housing. In the year of July 1, 2020 to July 1, 2021 the housing team successfully placed 103 individuals into housing. The housing team's extraordinary work is recognized by experts in the field; in 2017, the National Alliance to End Homelessness (NAEH) honored the Oxford Street Shelter for our work on the Long Term Stayers Initiative with their Pioneers in Innovation and Excellence award, highlighting that in "the program's first two years, 125 people – representing a combined 150 years of shelter stays – have been successfully housed."[1]

The Long Term Stayers (LTS) initiative started in April of 2015 when the City collaborated with local housing services providers to target their efforts with a by-name list of the most vulnerable and difficult to house individuals staying at the Oxford Street Shelter. At the time, the shelter had 44% of the state's long term stayers[2]. In Portland, long term stayers are defined as people staying over 180 cumulative days in shelters or outdoors within a 365-day period. This definition was created because HUD's Chronic Homelessness definition did not capture single adults who tend to bounce from shelter to shelter whose lengths of stay in any one shelter do not meet the HUD definition of chronically homeless. From April 2015 through June 2021, this initiative targeted 580 people identified as long term stayers and housed 345 of them. According to their HMIS data, this group collectively had more than 650 years of homelessness, and more than 200,000 total bed nights. There has been a 91.03% success rate in scattered site apartments due to the combination of rental subsidies and support services.

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[1] NAEH. (n.d.). *National Alliance to End Homelessness Honors Pioneers inInnovation and Excellence at Annual Awards Ceremony.* End Homelessness. https://endhomelessness.org/wp-content/uploads/2016/10/Awards-Ceremoney-for-distro-101017.pdf

[2] Community Housing of Maine. (2021, July). *Maine's Long Term Stayers Initiative History & Accomplishments* [PowerPoint presentation].

On-Site Services Provided by Community Partners:

An integral part of the design for the Homeless Services Center is a facility that allows for providers to be on-site with our clients. Throughout the planning process we have received great support and commitments from many of our community partners seeking to offer services to clients at the new Homeless Services Center location. (Please see **Exhibit 3** for a list of community partners.) Below are a selection of responses we received from providers describing their plans for outreach and service delivery at the new facility in no particular order:

Greater Portland Health

Through a harm reduction model and through trauma informed approach, we propose to provide primary medical care, behavioral health services, substance use services, infectious disease services, dental services, and outreach support.]The clinic will include two medical providers and two medical assistants along with a dental team consisting of a dentist, hygienist and two dental assistants. Additional staff will include a social worker, a psychiatric nurse practitioner, patient service representative, community health worker and a financial assistance counselor.

Preble Street

Preble Street is very excited about partnering with the City of Portland to support the centralized service model for the Homeless Services Center. Preble Street offers a variety of services that specifically target individuals experiencing homelessness, so having a robust involvement with the Homeless Services Center, the largest emergency shelter in Maine, would be a necessary and important component of their work.

Preble Street would actively seek to have an outreach presence at the new Homeless Services Center through various programs. Preble Street's Veteran Housing Services currently tracks all veterans that enter the emergency shelter system in Maine and would work collaboratively with HSC staff to identify and link homeless veterans with intensive housing-focused case management. Similarly, the Anti-trafficking Services (ATS) offered by Preble Street would serve as a valuable resource for any victims of human trafficking who present at the HSC. In conjunction with providing intensive outreach and case management to these individuals, the ATS team would be available to coordinate services and referrals with HSC staff and able to provide trainings as requested to increase staff's awareness of human trafficking.

Additionally, staff from Preble Street's Rapid-Rehousing Services (RRH) would outreach and engage eligible individuals at the HSC and coordinate services with HSC staff. In its first year of operation, the RRH team enrolled many individuals who regularly stayed at the Oxford Street Shelter and secured permanent housing for a high percentage of these individuals. Given these precedents, it is likely that the HSC would be an important referral source for Preble Street's ongoing RRH work. Along these lines, the Street Outreach Collaborative (SOC), Preble Street's mobile street outreach team which targets individuals experiencing unsheltered homelessness, would work specifically with the unsheltered

community to problem-solve the barriers that may be preventing them from accessing the HSC and other emergency shelters. The SOC would also be able to help HSC staff support clients in maintaining their emergency shelter placement. In its first year of operation, SOC connected 158 individuals to emergency shelters in Portland.

In addition to these service specific outreach efforts, Preble Street Homeless Voices for Justice (HVJ) would also seek to have a presence at the HSC. HVJ currently does regular outreach at Oxford Street Shelter, which they would plan to continue at the new Homeless Services Center. This outreach is done to inform clients of campaigns, to share what HVJ is working on, to hear from clients about what needs are arising, and to build connections between HVJ Advocates and current shelter clients. Additionally, HVJ sees potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, HVJ also hopes to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in advocacy work.

As demonstrated, the clients at the HSC would be an important focus of outreach from a wide variety of Preble Street programs. In addition to this considerable outreach presence, Preble Street envisions a continuation of the close collaboration between the HSC and their emergency shelters (Joe Kreisler Teen Shelter, Florence House Women's Shelter, and the Wellness Shelter) to ensure that youth, vulnerable women, members of the unsheltered community, and other at-risk individuals are triaged and linked to other shelters, as necessary. This would occur because of on-the-ground coordination between HSC and Preble Street staff to help streamline emergency shelter bed management across both organizations and ensure that individual clients are matched to the most appropriate emergency shelter resource available. The Wellness Shelter, in particular, will be an integral part of the City's shelter work and recently an MOU was created between the City of Portland and Preble Street to formalize this: "The Preble Street Wellness Shelter works closely with the City of Portland Oxford Street Shelter to best serve individuals experiencing homelessness and plan effective overflow options. As a result of this partnership, including coordinated assessments and referrals to the Preble Street Wellness Shelter, the number of persons within the City who are unsheltered, unsafe, and become a concern for emergency services is greatly reduced."

Furthermore, Preble Street commits to continued collaboration with HSC staff and clients through Preble Street case management and advocacy programming including the H.O.U.S.E. (Homeless Opioid Users Service and Engagement) program, the Long-Term Stayers meetings, Maine Homeless Legal Aid Project, and needed clinical assessments provided by Preble Street LCSWs.

Homeless Voices for Justice

Homeless Voices for Justice's engagement with the new Homeless Services Center will mirror our current engagement at Oxford Street Shelter. Homeless Voices for Justice currently does regular outreach at Oxford Street Shelter, which we plan to continue at the

new Homeless Services Center. This outreach is done to inform clients of our campaigns, to share what HVJ is working on, to hear from folks about what needs are arising, and to build connections between the Homeless Voices for Justice Program and Advocates and current shelter clients. Additionally, we see potential for future collaboration with the HSC in the areas of voter outreach and HVJ's You Don't Need a Home to Vote Campaign, including Candidates' Forums held as a part of that campaign, outreach for the Discrimination Against Homelessness Pilot Project through the Maine Human Rights Commission, and legislative work with clients at the City and State level. When appropriate, we hope to be able to have advocacy meetings at the HSC for the purpose of involving shelter clients in our advocacy work.

Spurwink

Spurwink is excited to partner with the City of Portland's new Homeless Services Center (HSC). Currently Spurwink provides Behavioral Health Home, Opioid Health Home, and Assertive Community Treatment services to individuals staying at the Oxford Street Shelter. These services provide an integrated, multi-disciplinary team-based approach to care coordination, treatment, and support. Spurwink will continue to offer these services to clients at the new HSC.

During the pandemic, Spurwink offered emergency medication assisted treatment for opioid use disorder for quarantined clients, committed staff to daily outreach in Deering Oaks and at City Hall during the summer of 2020, and recently committed staff to outreach related to TB testing. We hope to continue these types of innovative partnerships to help meet community needs.

Finally, the City is contracting with Spurwink to hire two Community Engagement Specialists. These staff will be dedicated to the new 22 Park Street housing first collaborative, but will also assist as needed with city-wide outreach and engagement efforts. Spurwink expects these staff members will have a heavy presence at the new HSC.

The HSC offers a terrific opportunity to streamline services for both clients and community providers. Spurwink is excited to support this initiative.

Through These Doors

Through These Doors is Cumberland County's domestic violence resource center, serving victims and survivors of abuse and anyone affected by abuse and other related issues such as stalking, dating abuse, elder abuse, and both human trafficking and sexual abuse in the context of intimate partner relationships. TTD has an important role in working within the City of Portland's array of services to homeless individuals. We know that domestic violence is a leading cause of homelessness, especially for women, and that homeless people are vulnerable to further abuse when they lack housing security. TTD's advocates are trained to provide holistic safety planning, advocacy, support, and resource sharing in the context of the homeless system.

In the City's planned homeless center, we envision embedding a full-time advocate (as funding permits) on-site to be easily accessible. TTD has a wide variety of other services including legal and court advocacy, assistance with legal practices such as protection from abuse orders, navigating the justice system, and engaging and working within the CPS system. Our advocate on-site within the City's planned homeless center will be a link to all other TTD services to provide seamless, consistent services, all free of charge to homeless individuals.

TTD's on-site advocate will also be a resource to City staff as they support homeless individuals dealing with current safety issues and/or long term impacts of violence. TTD advocates work within other systems in Cumberland County (including CPS, law enforcement, and the schools) and we are told that employees within each system appreciate having on-site consultation available.

Amistad

Amistad's contributions to the HSC's model of supports and services will reflect the unique, peer-to-peer role that the agency plays in the community. Amistad's front-line Peer Support Specialists are not social workers or case managers; they are people with life experiences that are relatable to those who may present as guests at the HSC. Peer Support Specialists engage with guests/clients in a manner that is relationship-based, that acknowledges the expertise of each individual within their own life experience, and that allows for each person in the relationship to respectfully challenge the other to recognize their personal opportunities for growth and change.

At the HSC, Amistad's certified Peer Support Specialists will be able to contribute by providing:

- One-to-one peer support with HSC guests. The support offered is relationship-based, goal-focused, and private, and will be provided on-site and by phone or video conference.
- Facilitation of peer support-based groups. Trained facilitators will provide support groups, with a curriculum that will rotate and evolve based on the current needs and interests of the HSC guests.
- Support for the establishment of the HSC's Utilizers Union, and services, in an ombudsman-like role, for HSC management and guests. Identified Peer Support Specialists will hold roles that support the establishment and ongoing functions of a Utilizer's Union at the HSC, and will provide ombudsman-like support between HSC guests and HSC management and staff regarding complaints, areas of tension, and prospective changes to HSC policies and practices.

The Opportunity Alliance

The Opportunity Alliance (TOA) is a dynamic, results-focused Community Action Agency for Cumberland County, which was founded in 1965. TOA provides 50 integrated community based and clinical programs serving more than 20,000 people annually throughout the state of Maine. With over 50 years of experience, TOA draws from a comprehensive set of

programs which address issues such as mental health, substance use, homelessness, lack of basic needs, and access to community supports. Through an extensive array of services, TOA provides opportunities for individuals to stabilize fragile situations and then works with them to achieve self-sufficiency. TOA has strong working relationships with system wide partners and providers including The City of Portland.

TOA's Project for Assistance in Transition of Homelessness (PATH) program is the beginning of services for unsheltered individuals with serious mental health and struggling with substance use, in our state's continuum of care. The PATH team's outreach and engagement component allows these individuals to build trust with a provider. Currently, the PATH team works closely with the Oxford Street Shelter to support individuals to access the shelter.

PATH will continue our collaboration with the new center, by continuing to provide outreach case management services in the community and encourage and support individuals who are interested in accessing the center.

The new center will allow our collaboration to strengthen, as it provides meeting spaces for PATH to work alongside center staff to initiate and complete applications for long term housing and other mainstream services.

Milestone

I am writing to share Milestone Recovery's plan to support the operations of the City of Portland's Homeless Services Center by offering on-site support services. Those services will include the regular presence of our Homeless Outreach and Mobile Engagement (HOME) Team both on the campus and to assist in providing transportation. In addition to the HOME Team supporting the Service Center, we are willing and able to offer our expertise around supporting people with substance use disorder (SUD) through sharing of resources and providing training.

We will continue engaging in coordinated and collaborative support for people that are unhoused and experiencing SUD. Milestone Recovery will also be able to offer group support and will explore offering treatment within the Service Center or engaging in facilitating access and transportation to community-based SUD treatment programming.Through collaboration with other community providers,we seek to support the needs of people who are unhoused through a holistic approach.

Shalom House

Shalom House will:

- Work with the Identified Individuals to provide assistance with housing, housing subsidies and to the extent permitted by funding, staffing, and all applicable state and federal guidelines, including program eligibility; and

- Communicate with the City and/or with the Identified Individuals any deficiencies in applications, issues with continuing required paperwork, and other issues that could jeopardize an Identified Individual's housing at the Homeless Services Center.

Portland Trails

Portland Trails is eager to partner with the City of Portland as well as the staff, service providers and folks who are receiving services at the Service Center. As a land manager of adjacent public conservation land and the trail system that provides both transportation and recreation opportunities for all community members, we will be part of the everyday experience of many service recipients. As a previously industrialized neighborhood invites more human activity, we want to engage in regular dialogue to ensure that transition is as smooth as possible for all.

II. Staffing and Management Responsibilities

Staffing Roles:

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three managers there will be on-site coverage 6am-11pm, as well as 24/7 on-call rotation. Having round-the-clock coverage affords clients the opportunity to connect with a member of the management team whenever desired. This level of access fosters an environment responsive to the needs of our clients.

The Shelter Director is responsible for supervisory and administrative work managing homeless shelters, supervising shelter attendants, security staff, housing counselors, senior human service counselors and managers. This work typically involves the development, planning, promotion, coordination and administration of Division programs. The Program Manager of a City Shelter is directly responsible for the operations and housing programs of the shelter. This position will be directly involved in budget development & management, personnel supervision, and development and implementation of various policies. Regular assessment of program plans and accomplishments will be reviewed in conjunction with the Social Services Division Director. The Director supervises a staff of professional, administrative and support staff, both directly and through designated supervisors. The Shelter Director participates in all grant application processes, program planning, and service evaluations including shelter audits. This position is responsible for meeting program reporting requirements, monitoring outcome measures and expenditures, compliance with all applicable federal and state regulations. The Shelter Director represents Shelter programs in the community, serves as a member of relevant committees, task forces, etc. The Director serves as liaison with community groups and individuals and neighbors regarding homeless issues. Additionally, the Director develops policies and procedures to support complex safety needs associated with homeless shelters.

The Assistant Director of Shelter Operations works a flexible schedule but primarily provides evening management coverage. The Assistant Director of Operations is an administrative management position responsible for oversight of overall shelter operations including

compliance and ADA regulations, purchasing, human resources management, and ensuring overall consistency for shelter operations. This position assists the Shelter Director with compliance of policies, procedures and regulations. In concert with the Shelter Director, this position oversees safety guidelines for facilities. This role is responsible for hiring shelter attendants, security guards and shelter supervisors in consultation with the Shelter Director. The Assistant Director of Operations must have knowledge of local homeless resources, staff supervision, crisis management, experience working with a diverse population including chronically homeless, mentally ill, physically disabled and substance addicted populations.

The Assistant Director of Housing Services works a flexible schedule but primarily provides daytime coverage. This is an administrative/management position responsible for coordinating housing and support services and will provide direct supervision to the Housing Service's Team. This position will be responsible for implementing established shelter policies regarding housing for all clients. This individual will maintain relationships with service providers and landlords that will help benefit our clients. The Assistant Director of Housing Services is responsible for connecting shelter consumers to needed services, including but not limited to mental health, substance use services, and employment services. The Assistant Director of Housing Services must have experience with housing search and placement and a strong understanding of HUD best practices, the ability to communicate effectively and the ability to provide excellent customer service.

In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage. Our supervisors, or Senior Human Service Counselors, will work flexible hours providing both day and overnight coverage to include weekends. They will supervise program staff in the uninterrupted operations of the shelter and are part of the team that facilitates orientation of new program staff. This position assists in staff scheduling and performance evaluations. They will serve as liaisons between community groups and members of the public regarding program issues. They will respond to crises including medical or mental health emergencies, and physical altercations or threats of violence. Senior Human Service Counselors will also provide housing orientation and housing triage to new clients.

The HSC will be staffed 24/7 by our Shelter Attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to every day operations and work a flexible schedule across 24 hours. They will assist new clients with orientation to the facility. Our shelter attendants must possess the experience and the ability to work with clients with mental health and substance use issues. Building on their experience, each Shelter Attendant receives training to provide the following knowledge, skills, and abilities: a working knowledge of shelter policies, procedures and best practices, as well as working knowledge of community resources. This equips shelter staff to support our clients and make the necessary referrals to our housing team, as well as referring to other community partners. With the new model, many referrals will occur on-site, including to the Federally Qualified Health Clinic.

The Homeless Services Center will have a team of dedicated Housing Counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. All of our

Housing Counselors have experience working with the homeless population, housing, mental health, substance use, and community outreach. They have knowledge of the principles and practices of case management/casework. Additionally, they must have working knowledge of mental health, substance use issues and homelessness.

The Homeless Services Center offers housing services to all clients accessing the service center and will have housing staff on-site 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[3]

A key part of our housing team is the Housing Retention Specialists. They connect with clients as they transition from the shelter. In support of the housing-first model, these specialists wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, which can include connecting to community meals. Housing Retention Specialists also work to make appropriate, supportive referrals to medical care and case management services. Our Housing Retention Specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for public reporting. The Administrative Assistant aids management with review of data before grant submissions. This position ensures accurate filing of incoming client intakes and nightly paperwork in accordance with state regulations. They assist in ordering appropriate supplies for the HSC. This person also works with management on specialized tasks, giving great attention to detail and a high level of accuracy.

Our Facilities Team is an integral part of ensuring that the space is a safe, clean and inviting environment for clients to access and staff to work. We have facilities staff on-site from 6am-2am. Our Facilities Team responds to all maintenance emergencies and works with all maintenance vendors to ensure our building and grounds are operating at peak condition. Facilities staff duties include general cleaning, trash removal, cleaning of bathrooms, floor care, waiting rooms, laundry, light maintenance, grounds work, routine facility maintenance as necessary, routine exterior maintenance, including snow removal, and other tasks as required. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

[3] NAEH. (2016, April 16). *Housing First.* End Homelessness. https://endhomelessness.org/resource/housing-first/

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security Staff will have an office located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security Staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. Security Staff are trained to address conflicts that arise on property or grounds and will assist HSC staff and Emergency First Responders in securing an area during an emergency. Security Staff must have strong and effective communication skills, including strong active listening skills and speaking skills as they will be communicating with clients, other staff, first responders and neighbors. Security team members must have excellent customer service skills. Additionally, security staff must have the ability to remain calm during unusual occurrences, disturbances, or other stressful situations.

The management team will meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For a full list please see **Exhibit 4**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Using this client-centered model, staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the Homeless Services Center. If guests need shelter after this program's hours the Homeless Services Center phone number and the after hours General Assistance number will be prominently displayed at the Prevention and Diversion Center, our contact information will be available through 2-1-1 and community outreach programs will have access to our 24-hour line for after hour admissions. Should a client call for assistance after hours, Homeless Services Center staff will provide transportation from the Prevention and Diversion Program to the Homeless Services Center.

The City of Portland does not turn anyone in an emergency of homelessness away. Clients accessing the shelter complete a housing-focused, strengths-based intake assessment, are assessed for symptoms of infectious disease (at which point appropriate medical referrals would be made) and after completion of an intake are assigned a bed.

The Homeless Services Center will continue the City's current model of providing 24 hour continuous services to our clients. Unlike the City's current shelter, clients will have ample room to move throughout the facility, allowing for the space to remain clean, safe and sanitized while not restricting individuals to small areas. Following the lessons learned from the Expo shelter, City staff feel it is best practice to ensure that we have an open facility with clear site lines where clients can have access to services on-site. Clients will have the ability to utilize laundry facilities and shower facilities as needed. On-site meals will be available three times a day, understanding that many of our clients are busy seeking housing or are employed and may miss meal times, staff will ensure clients have access to food outside of those meals. Mail services will be provided on-site to ensure their ability to receive important documents that are imperative to housing: state identification, birth certificates, etc. In addition, clients will have access to their assigned beds throughout the day.

It is important to the City that all clients entering the Homeless Services Center feel comfortable in their sleeping areas. HUD's Equal Access Rule protects the rights of transgender and gender non-conforming people by mandating that "access to shelter and housing must conform with, and adhere to, an individual's self expressed gender identity." [4]. Homeless Services Center staff ask individuals to self-select their dormitory based on their self-identified gender. For individuals who do not feel safe or comfortable sleeping in the men's or the women's dormitories, the City will provide separate sleeping space. Self-identified trans, nonbinary and gender-diverse clients are informed that they can request this accommodation. In addition, the Homeless Services Center will include nine restrooms for clients and three in staff areas which are barrier free, fully accessible and designated gender neutral in addition to the larger restroom facilities.

The new facility will also have an expansive outdoor space-allowing clients to safely gather in a number of private areas. Clients will have access to an enclosed courtyard just off the general dayspace- part of this courtyard will have a covered pavilion for eating space, meeting with community providers and housing workers or social gathering. Additionally, the private courtyard will have exercise facilities and raised garden beds so that clients can participate in growing food for the meals. A green space with a raised platform area will be available for client use. In addition to the raised garden beds, a healing garden will be located on the other side of the facility. This will be a space for quiet reflection, small groups or meetings with community providers and housing staff.

The programmed outdoor spaces detailed above will be fenced. This will be to maintain site control and provide a higher level of protection to those seeking emergency shelter. We will work to ensure this fencing design fits in with the trauma informed design of the property. We will also continue to seek feedback from our neighbors as, and if, operational issues relating to fencing arise.

The security staff will be responsible for monitoring entry and exit into the building, as well as the perimeter entrance and exits via video surveillance. This will leave our front desk staff

[4] NAEH. (n.d.). *Trans and Gender Non-Conforming Homelessness*. End Homelessness. https://endhomelessness.org/trans-and-gender-non-conforming-homelessness/

available to respond to the needs of clients and service providers. The access points to the building include:

- *The primary building entry off Riverside Street*- The HSC's main entryway will be off the well lit and inviting walking path leading from Riverside Street to the HSC. The main doorway will be a dual door system monitored by security staff. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on-site.
- *Controlled External Entrance to locker facilities*- Located in tandem to the primary entrance, clients may first enter the external locker facility. There will be enough on-site locker storage for each client accessing the Homeless Service Center. Clients will have the ability to access their own storage space as needed. This space will exit into the dual door vestibule.
- *Controlled Staff entrance and exit*- These entrances will lead to staff administrative and housing offices, space for community providers to hold confidential meetings with clients, as well as conference room space for on-site lease signings or small trainings.
- *Clinic entrance*- The clinic will be a space that is open to the general community. Clinic staff will have the ability to admit any patient they may be treating.
- *Controlled exit from the dayspace to the private courtyard with covered eating space, controlled exit from the male dormitory to the community garden, controlled exit from the female dormitory to the community garden*- These three exits will be accessible only to individuals who are already accessing the facility and will lead to fenced in areas that provide privacy, confidentiality and safety our clients.
- *Controlled fire exits off dormitories and client bathrooms*- a mandatory number of fire exits that meet the necessary fire code requirements will be located along the rear of the building. These will be accessed in emergency situations and will be accessible for entry to those who have already accessed this facility when needed.
- *Loading and service area*- the secure loading and service area off of the kitchen and dining area will be utilized for food and donation deliveries, as well as pick up of dirty linens and the drop off of clean linens through the City's partnership with the Barron Center. We anticipate food deliveries to occur three times daily, in line with our three meals a day. We also anticipate a daily morning laundry pick up and drop off and will be receiving weekly deliveries for service center supplies.

In accordance with the Americans with Disabilities Act and Chapter 5 of the City of Portland Code of Ordinances, service animals are always welcome and are required to remain on a leash or harness at all times. Pets and other animals, however, are not allowed. We recognize the positive impact and importance companion animals have in the lives of the clients who present with them as well as the barrier to entering shelter their interdiction presents. To mitigate this barrier and improve the experience and housing success of our clients, whenever possible we work with community partners to attempt to find their animals alternative accommodations for the duration of their stay in shelter. This includes collaborating with the animal control officer, leveraging their relationships with local programs and rehousing individuals with their animals as soon as possible.

IV. Transportation

The Homeless Services Center will employ a Transportation Demand Management (TDM) approach to handle client transportation needs. Because most clients are not anticipated to drive, TDM is important beyond its traditional goals of simply reducing vehicle trips. The facility's TDM plan is included as **Exhibit 5**. Some additional points and summary information are below.

The Homeless Services Center will include a City operated 15 passenger van as a shuttle service to clients. The shuttle will operate with regular scheduled trips throughout the day to stop at service centers for appointments as well as get back to the facility, and will include after hours operation on an as needed basis. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize.

As a safety policy, staff operate the shuttle or any City vehicle, in pairs while transporting clients. This allows for the driver to remain fully focused on the safe operation of the vehicle should the passenger staff need to assess a client in medical distress or help to de-escalate any situation in the vehicle. It also allows the passenger to safely assess the vehicle inhabitants and engage with them so that nothing rises to this level of need. For individuals departing directly from the Homeless Services Center our staff will have developed relationships with these clients. They will be aware of whether these individuals are appropriate to transport via the shuttle or may require an alternate form of transport at that time. They will also be able to assess whether some clients may have previous conflicts that might indicate they should be transported separately. For individuals coming from the Prevention and Diversion Center, a safety assessment will be done with all individuals prior to transporting them. Any staff person driving the 15 passenger van must receive training from the City's Safety and Training Officer that includes safe driving practices specific to vans. As a Covid precaution the van and other city vehicles have partitions that have been installed for safety.

In addition to the shuttle van, the Homeless Services Center will continue the long-standing practices of Oxford Street by using taxi vouchers, Metro, and our current sport utility vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the Homeless Services Center will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The Homeless Services Center premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Best practice dictates clear sight lines which will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring

area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

HSC staff will provide once daily checks of the trail system adjacent to the property. Staff will also coordinate with Portland Trails and will participate in their weekly walk of that section of trail.

Cameras will be mounted externally for easy surveillance of the perimeter. Cameras are also mounted in internal common spaces not to include private areas, such as sleeping quarters and restrooms. Camera monitors will be visible from the security office, which will be staffed. Our security staff will review live feed of the cameras and we will also have access to recorded data as needed. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations. This will be reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire Homeless Services Center population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. In addition, all workstations are equipped with panic alarms for any potential emergency. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The Homeless Services Center presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed design impacts client success as well as the neighboring community. This Homeless Services Center was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the

safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 7**). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding good neighbor relations at intake. As stated in the above section *Controls for Client Behavior and Noise Levels*, we feel it is important to provide clients clear expectations of the Homeless Service Center Rules at intake. This ensures clients are aware of the expectations for their behavior while utilizing the HSC and clearly outlines the rules in place to provide safety to clients, staff and the neighborhood. Additionally, we have a Neighborhood Engagement Strategy (please see **Exhibit 8**) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect the Homeless Services Center surroundings, the neighborhood and meet any neighborhood needs or concerns.

The following steps are taken to ensure guests of the HSC are informed and engaged around the rules and expectations of our facility:

- Upon intake, each client will sign a resident contract (please see **Exhibit 6**) which clearly outlines the Homeless Services Center rules and behavior expectations, including the importance of being a good neighbor.
- The Homeless Service Center Staff hold regular house meetings to cover a variety of topics including reinforcement of important shelter rules and guidelines and the importance of being a good neighbor.
- Supervisors and staff meet multiple times daily for "shift change" meetings to pass along critical information, such as any client who may have an important housing appointment they need connecting to, a client who may be struggling due to ongoing mental or physical health concerns, or neighborhood concern that has been relayed that needs ongoing monitoring.
- If needed, staff will meet with clients on an individual basis to address concerns in a proactive manner and work to connect clients with any helpful resources such as but not limited to Cumberland County Crisis through The Opportunity Alliance, Detox and

substance use services, Adult Protective Services, First Responder Services of Portland Medics, Police and Fire and Greater Portland Healths onsite services.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As such, when neighborhood concerns arise, staff take immediate action to resolve the concern. Homeless Service Center staff are committed to working with clients, neighbors, businesses, and community partners until an issue has been resolved.

Mechanisms to resolve neighborhood complaints include, but are not limited to:

- Half-hour perimeter checks of our facility, grounds and surrounding areas, this will include as needed checks of the Portland Trail System.
- As mentioned previously, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. In addition, this will include as-needed, but in any event no less than daily, checks of the Portland Trails System.
- The Homeless Services Center staff will provide a 24/7 telephone number that connects neighbors and community members directly to staff at any time of the day or night. Concerned neighbors are invited to call to discuss any potential issue or concern related to the Homeless Services Center. All calls will be logged and tracked.
- Additionally, The Homeless Service Center will have a member of the management team on call 24/7 to assist in resolving any issue. This allows for swift notification to managers of any neighborhood issue or concern.
- While neighborhood complaints could involve a discussion and staff intervention with a small group or single client of the Homeless Services Center, occasionally larger interventions will include our committed community partners listed in this management plan. Staff may also request assistance from:
    - The HOME Team
    - TOA Crisis Response Team
    - Police Department
    - MEDCU and Fire Department
- Once addressed, a supervisor of the Homeless Services Center will make a return call to the neighbor in order to confirm resolution.
- Calls will be tracked and logged and reviewed monthly at the neighborhood advisory committee meeting.
- The Homeless Services Center staff is happy to meet with all partners and neighbors to ensure a sense of positive community, overall wellbeing and safety.
- The Homeless Services Center will provide a representative to a minimum of 75% of regularly scheduled monthly Neighborhood Association meetings and looks forward to feedback from our neighbors at these meetings.

The City will also create an advisory group consisting of representatives from the neighborhood association, neighborhood residents, area businesses, Portland Police Department, Homeless Service Center staff, Homeless Service Center clients, the District

Attorney's office, Portland Trails and the District 5 City Councilor or his/her designee.[5] Specific members of the Neighborhood Advisory Committee will be identified and finalized before the end of construction of the Homeless Services Center.

For the first year, the Neighborhood Advisory Committee will meet monthly and will be chaired by a representative of the City's executive staff. The group will review complaints made during the prior month and recommend operational changes to reduce neighborhood impacts and/or improve client services. This group will also provide the review of the Neighborhood Engagement Strategy. Minutes will be recorded and maintained for a 24 month period at the Homeless Service Center and will be made available for review by interested parties. These minutes will reflect specific recommendations of the advisory group and will be annotated to reflect whether these recommendations have been implemented. Upon agreement of the majority of group members, the advisory panel will shift to quarterly meetings in year two.

IX. Monitoring:

The Homeless Services Center management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee, and various housing related boards and committees of the City, such as, but not limited to, the Rent Board and the Housing and Economic Development Committee.

[5] Sauschuck, M. J. (2018, September 8). *Security Planning and Procedures for Proposed Homeless Service Center.* Portland Maine. https://www.portlandmaine.gov/DocumentCenter/View/22367/HSC-Memo

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly and those will be posted on the ESAC webpage which are linked from the City's webpage. Additionally, we post weekly updated data and statistics to the City of Portland Health and Human Services website.

This management plan may be subject to periodic updating and review. As with all elements of an approved plan, proposed changes to the approval require amendments. In the event that changes to the management plan are needed, Health and Human Service Staff shall submit to the Department of Planning & urban Development any proposed amendments to this management plan and the Department of Planning and Urban Development will determine whether such changes qualify as a major amendment, and therefore subject to review and approval by the Planning Board, or whether they qualify as a minor amendment, and may be reviewed and approved by the Planning Authority.

Exhibit 1: Overview of the Process to Replace the Oxford Street Shelter

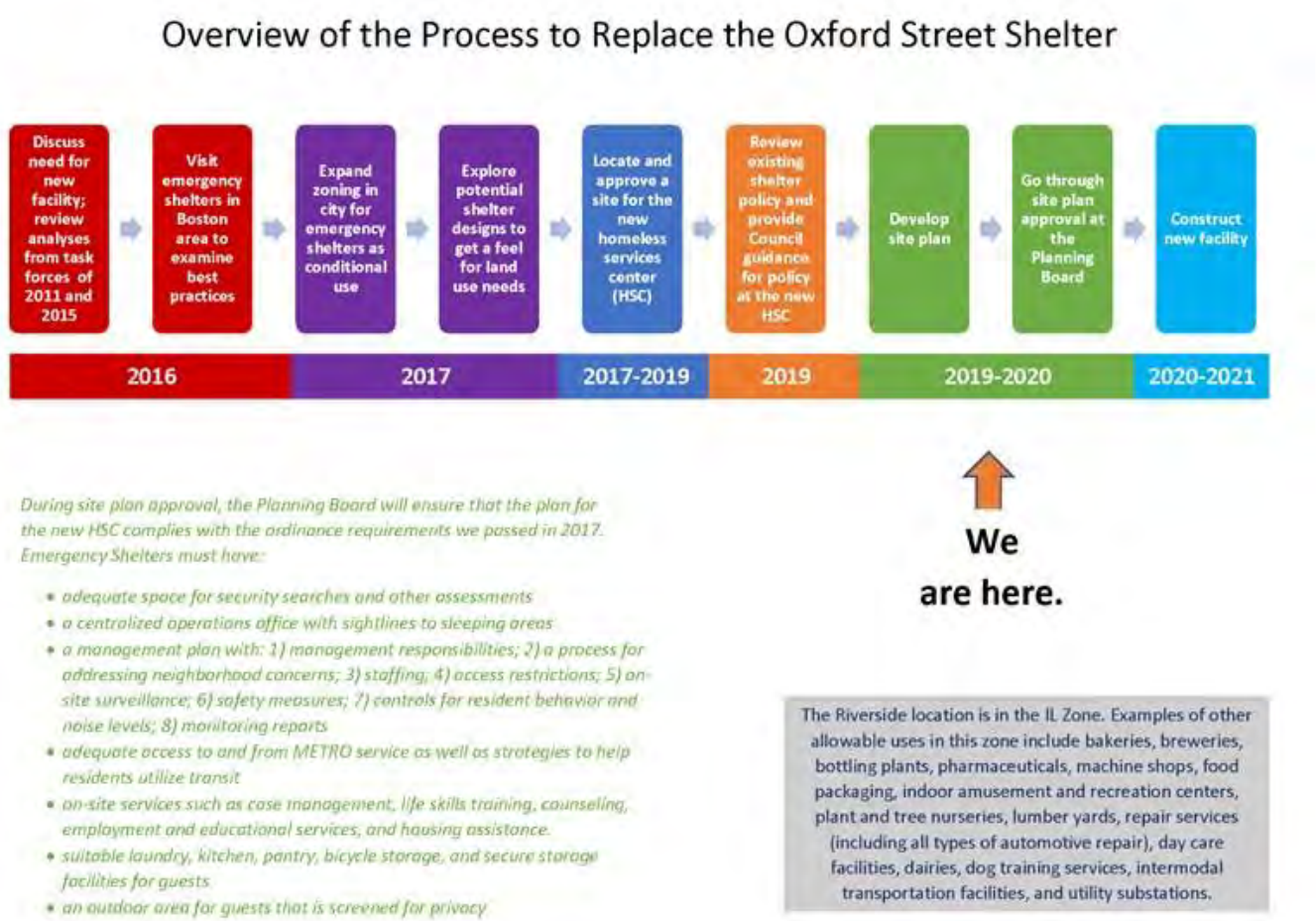

Exhibit 2: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Metro Route 2
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Mail services
- Meals
- On-site health care clinic
    - Primary Medical care
    - Infectious Disease Services
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services
    - Peer support groups

Exhibit 3: Service Providers Planning to Offer Services or Outreach On-Site[6]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - The Public Health Division
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[6] This list appears in alphanumeric order.

Exhibit 4: Staff Training and Professional Development[7]

- **Bloodborne Pathogens training**
  OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure
  Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting HIV, Hepatitis C, or other bloodborne diseases
- **Cardiac Science: AED**
  The Automated External Defibrillator (AED) training teaches basic AED rescue skills and correct defibrillation procedures.
- **Customer Service Training**
  Through this customized training, you will have the opportunity to explore the City's vision, goals, and values and how they relate to a culture of excellent customer service, learn about our new customer service vision, renew your commitment to customer service, learn best practices, reinforce the structures already in place that support great customer service, and identify the things you need to improve customer service.
- **Diversity and Inclusion Workshop**
  The City of Portland is committed to an inclusive workplace in which differences are respected and valued. Portland's demographics are rapidly changing and, by extension, so are our employee, visitor, and customer populations. During this interactive, two-hour workshop, participants will increase their awareness of personal biases - both explicit and implicit - and how they impact the way in which we navigate the world; explore practical, proactive strategies for responding to acts of bias and prejudice; and examine strategies to promote respect for diversity, equity and inclusion within the City.
  https://implicit.harvard.edu/implicit/takeatest.html
  Implicit Association Tests are online tests designed to explore our hidden or implicit biases, aimed to detect the strength of a person's automatic associations between concepts(e.g. women, homosexuals) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). You will be asked to sort pictures and words into groups as fast as you can. IATs evaluate automatic associations on many different topics such as race, religion, gender, sexual orientation, and weight
- **Emergency Action Plan training**
  Helps train employees on what to do in an emergency whether it's a fire, flood or an active shooter. The City has a predetermined emergency action plan to assist employees in knowing what to do in these different emergency situations. The training goes through the plan.
- **Equal Access to Housing training by GLAD**
  This training covers ways you can create a more welcoming and safer environment for LGBTQ persons. Learn the basic concepts and expectations of the HUD Equal Access to Housing rules and what rights are covered under this rule for individuals regardless of their sexual orientation and in accordance with the individual's gender identity, and in a manner that affords equal access to the individual's family.

[7] This list appears in alphanumeric order.

- **First Aid and CPR**
  Providing basic first aid, CPR and knowledge to assist guests until EMS arrives.
- **General Assistance Training**
  An overview of the General Assistance Program and the nuances that impact securing housing for individuals experiencing homelessness.
- **Homeless Management Information Systems trainings**
  -Maine Housing Emergency Shelter and Housing Assistance Program
  -Stability Through Employment Program
  -Rent Smart
  -Data & Security
- **Housing Training for Supervisors**
  An ongoing overview of housing assistance, voucher programs, general assistance, community resources and ways to keep conversations in shelter housing and solutions focused.
- **Human Trafficking in Maine: Identification and Response by Preble Street and Maine Coalition Against Sexual Assault**
  Understand the problem of human trafficking. Learn how to identify survivors of human trafficking. Learn how to meet the needs of people who have been trafficked.
- **In their Shoes Refugee Training**
  This is an interactive simulation provided by Catholic Charities Refugee and Immigration Services. The program is designed to help participants walk in the shoes of a refugee and come to understand the tough decisions faced by someone fleeing for safety.
- **Introduction to Cultural Competency**
  This interactive class explores the various cultures that we inhabit and steps that we can take to become more culturally competent. Cultural competency - the ability to understand, communicate with, and effectively interact with people across various cultures- is a lifelong journey and a skill essential to succeeding in today's culturally-diverse work environment.
- **Language Access Training**
  In this one-hour training, we cover how to identify a Limited English Proficiency individual; the distinctions between interpretation and translation; how to access and best utilize an interpreter; and translation of departments' vital documents. City staff who routinely interact with members of the public are expected to attend.
- **Mental Health First Aid Training Conducted by NAMI Maine**
  Mental Health First Aid is a national best-practice, evidenced-based certification course that is 8 hours in length and leads to a 3 year certification issued by the National Council on Behavioral Health.
- **Military Culture 101**
  A program designed to educate service providers on Military culture and resources Veterans can access.
- **Narcan/Overdose Reversal/Response Training**
  The Public Health Division provides best practice training on recognizing and responding to an overdose, on an as-needed basis, at the request of shelter staff. This training includes: risk factors, prevention strategies, signs and symptoms, and appropriate response, including calling 911 and administering Narcan. In addition to training, the Public Health Division provides Narcan at no cost to the Shelter.
- **National Alliance to End Homelessness Conference & Capitol Hill Day**

The 2019 National Conference on Ending Homelessness and Capitol Hill Day was the nation's largest convening of service providers, leaders, advocates, and consumers working to end homelessness in the United States. The July conference featured dedicated tracks focused on families and youth experiencing homelessness, updated content on chronic homelessness, veterans, single adults, and other populations. Capitol Hill Day offered an opportunity to speak with members of Congress and their staff and advocate directly for the resources that will benefit homeless families, individuals and youth in your districts.[8]

- **New Employee Orientation**
  For all newly hired employees, a New Employee Safety Orientation online training is required to be completed by new hires through our Maine Municipal Association website, NEOgov. This training covers the following safety issues: Accidents and Emergencies, Fire Safety, Preventing Slips, Trips and Falls, Back Safety, Ergonomics for the Office, Personal Protective Equipment, Hazard Communication, Bloodborne Pathogens, Defensive Driving and Equipment Safety.
  In addition, the following City policies are reviewed with new hires within the first 4-6 weeks of their employment: Equal Employment Opportunity and Nondiscrimination Policy, Policy against Harassment, Workplace Conduct Policy, Drug Free Workplace Policy, Work Related Injury Management, Technology Use Policy, and our Communication and Social Media Policy. New hires are provided an overview of policies via a powerpoint presentation either in person or at the employee's discretion (new protocol during response to COVID pandemic).
- **New Per Diem Training**
  Conducted with all new employees, this training is an overview that covers a broad range of topics including customer service, review of shelter policies and safety, emergency response (how to call for assistance in an emergency, how to communicate to dispatch, use of your two way radio), overdose reversal and use of naloxone, scenario training (which can include how to de-escalate a client in distress, use of progressive discipline, etc).
- **Rapid Resolution Housing Training**
  Rapid resolution is a client-centered, problem-solving approach designed to meet the housing stability needs of most persons seeking homeless assistance.
  Client-centered—with a focus on the client's agency in resolving his or her own housing crisis; Flexible–all available housing options are creatively explored through a problem solving conversation; and Immediate–providers recognize a critical window of opportunity to act swiftly to resolve the housing crisis.
- **Reasonable Suspicion for Supervisors**
  This training is to assist when supervisors have evidence or reasonable cause to suspect an employee of drug use. This is needed for the supervisor to know how to follow proper protocols and documentation.
- **Serious Accident Reporting**
  This training defines "serious physical injuries" and the steps to take when reporting to the Maine Department of lAbor is necessary as outlined in the City policy "City of Portland Mandatory Reporting Requirements for Employee On-the-Job Death

[8] "Conferences" *National Alliance to End Homelessness* https://endhomelessness.org/events/conferences/

or Serious Injury Standard Operating Procedure."

- **Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health**
  Trauma-informed care recognizes the physical, mental, behavioral, social and emotional impacts of the experience. Tese training covers core principles and explains Adverse childhood experiences (ACEs) which are stressful or traumatic experiences that happen during the first 18 years of life.
- **Understanding and Supporting LGBTQ Individuals**
  Provides attendees the opportunity to learn more about what it means to be part of the LGBTQ community with special attention given to understanding what it means to be transgender, non binary, and gender non conforming. The presentation will address ways in which City of Portland staff can be more inclusive in their day-to-day work by using inclusive language and terminology, navigating names and pronouns, processing forms and documents, and implementing smart practices to use to make your workspace more inclusive of everyone.
- **Verbal Judo**
  Provides staff with de-escalation techniques through verbal communication to avoid further conflict with individuals including redirection strategies, ultimately decreasing resistance. The goal of the course is to enhance professionalism, decrease community complaints, decrease liability, lessen stress and increase morale for guests employees.
- **Violence Against Women Act training by Through These Doors**
  Provides an overview of the Maine Coalition to End Domestic Violence, the individual resource centers serving Maine and the services offered, presents *Violence Against Women Act overview: "What is VAWA? Who is protected? What programs are impacted?"* and reviews housing protections for survivors and the responsibilities for housing providers.
- **Workers Compensation for Supervisors**
  Explains the procedure for referral to partner urgent care providers and reporting requirements when staff are injured while performing their duties.

Exhibit 5: Transportation Demand Management Plan

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Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street – Portland, Maine
Revised August 31, 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile[1] of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[2]
- Sight lines in each direction at driveway exceed 500 feet[3]
- Driveway separation – 176 feet4
- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 – 16892) yields 14 crashes and Critical Rate Factor (CRF) of 0.785. Riverside Street at the site driveway is not a High Accident Location.

[1] Measure from Forest Ave outbound Transit stop to the proposed door is 2,340 LF or 0.44 mile
[2] MDOT AADT information – Riverside St N/O Warren Avenue
[3] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.
[4] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.
[5] From MDOT for period 01/01/2018 to 12/31/2020

- Collision data for the Intersection of Forest Ave and Riverside Street (Node 16892) yields 41 accidents from 01/01/2018 to 12/31/2020. The intersection is considered a high crash location with a CRF of 1.17. The majority of accidents result from vehicles following too close and driver inattention on the Forest/Route 302 inbound leg and on the Riverside northbound leg. Accidents do not appear to be related to pedestrian crosswalk movements.
- Collision data for Forest Avenue from the Riverside Intersection to the Riverton Drive (nodes 16892 to 18508) yields 5 accidents. This location is not identified as a high accident location. Safety measures at the Transit stop crosswalk include a recently installed Rectangular Rapid Flashing Beacon (RRFB) assembly that is push button activated to signal vehicular traffic of crossing pedestrian movements. The project has also committed to wayfinding strategies to include signage and pavement markings to clearly identify the safe walking route for Shelter users from the transit stops to the Shelter.
- Street lighting from the Forest Ave transit stops to the shelter includes a cobra head light over the outbound transit stop and a streetlight on the NW corner of the Riverside intersection. On Riverside Street there are several pole mounted cobra head streetlights. At least four utility poles are available for additional streetlights if necessary to improve lighting over the proposed 6' wide sidewalk on the west side of the street. Additional lighting will be discussed with the City DPW and CMP.
- Nearby Peak hour traffic volumes are summarized as follows:[6]

TABLE 1
TRIP GENERATION

Site	Traffic Count AM Peak Hour (6:30 – 7:30 am)	Traffic Count PM Peak hour (3:45 – 4:45 pm)	ITE[7] AM Peak Trips	ITE PM Peak Trips
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1,229**	**1,652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 6' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These existing bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding

[6] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)
[7] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;
- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals. There are basically 30 runs from METRO Pulse outbound beginning at 5:45 am and ending at 10:40 pm. The Route 2 alternates hourly service to the Hannaford Street on Riverside and to Prides Corner which does reduce overall service to Westbrook and points west. Saturday service is decreased with 16 outbound runs beginning at 6:20 am and ending at 9:40 pm. Sunday service includes 8 runs from 8:20 am to 3:20 pm.

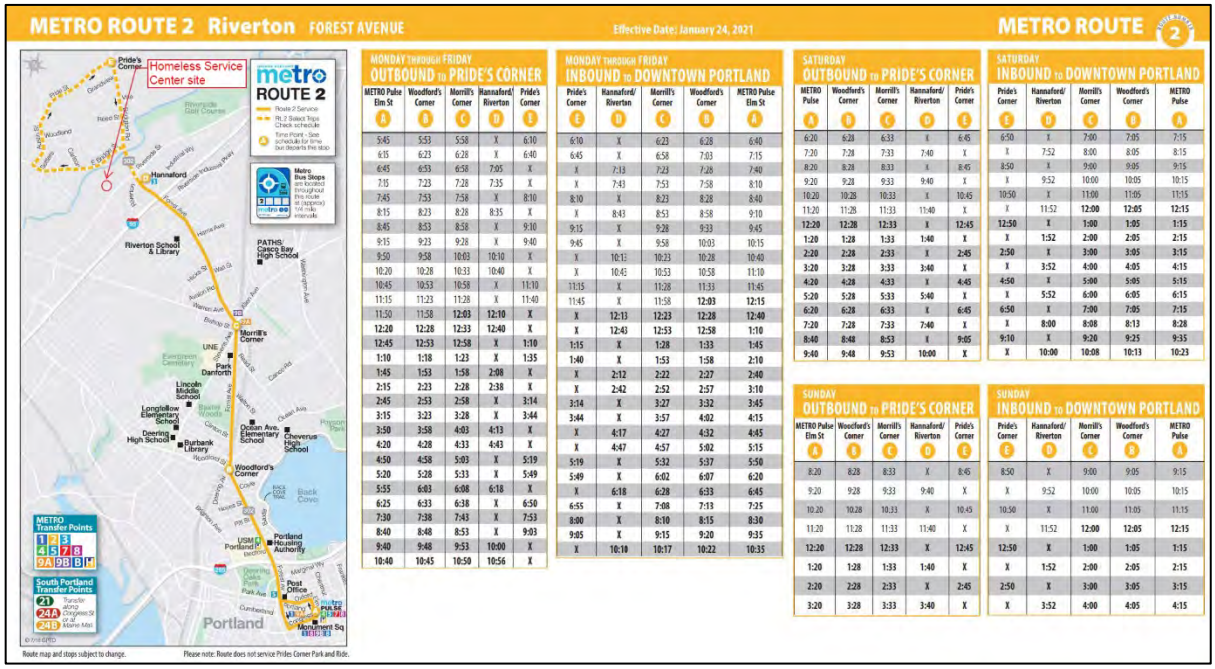


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

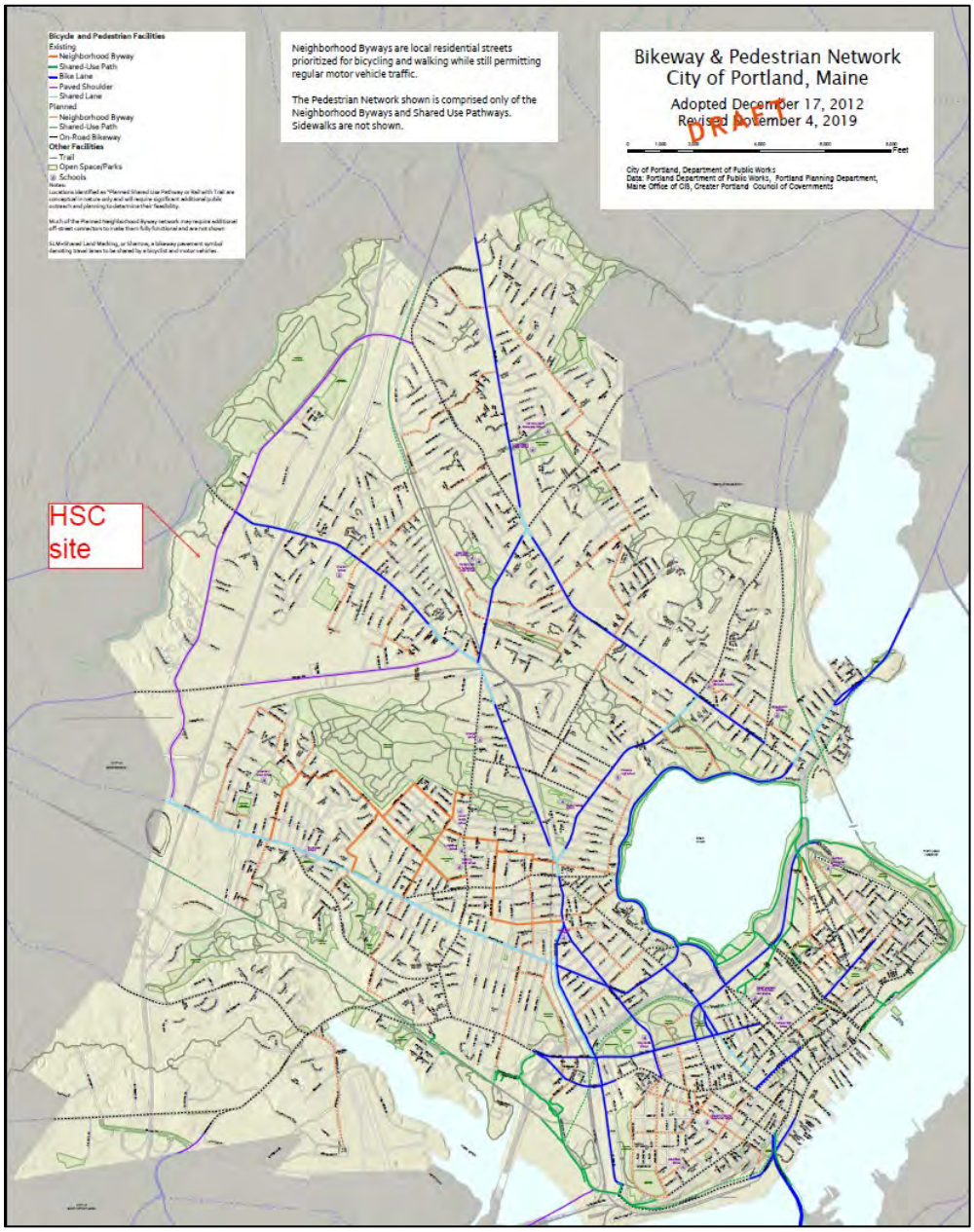


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hour staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however, in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered. A target period of 3 years is set and will be re-evaluated as part of the annual reviews.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN

Agency/Position	Number of Anticipated Vehicles	Time-in	Time-out
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

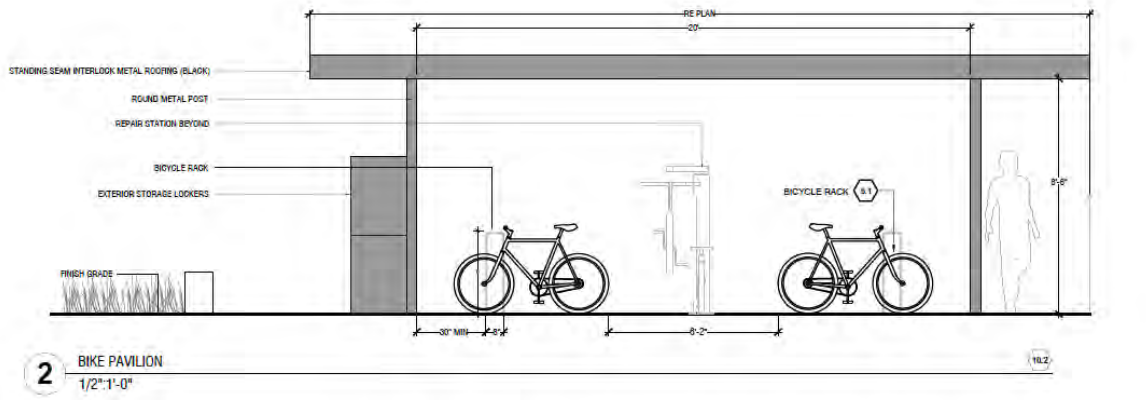
Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.4 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. Currently free bus passes are offered to shelter guests. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Signal improvements will include the implementation of Leading Pedestrian Interval or Blank out signs to prohibit vehicular right turn conflicts with pedestrian crossing movements. Wayfinding signage will be provided at bus stops and along Forest Avenue and Riverside Street to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order. A new bus shelter[8] is proposed for the Inbound transit stop at the Riverton Drive location.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion as detailed as follows:

[8] Per city staff a private fuel station development on Forest Ave is responsible to install the new bus shelter.



The development activity will result in the construction of a new 6' wide City standard paved sidewalk from the Forest Avenue intersection to the site entrance as well as 12' wide paved entry sidewalk into the site. Pedestrian Signal improvements at the Forest Ave/Riverside intersection will be performed for safety and coordination with the existing traffic signals. A restriction on right turns off Forest Ave onto Riverside will be implemented during crossing phases to minimize conflicts with vehicles and pedestrians.

The operators will prioritize the availability of information to guests to include bicycle and walking information. Equipment will be made available to guests to include reflective material for clothing, bicycles and carts. The operator will consider partnership opportunities with support organizations for such things as bike repair training.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; At least 2 spaces closest to the building will be designated for ride share parking; The TDM Coordinator will query staff participants for other possible perks that may interest them that might include gift certificates or similar rewards for promoting and participating in the TDM;
- Implement a ride share registry to match employees interested in ride share;
- Employees are encouraged to bike or walk as part of the City's Wellness Program that offers discounts as part of the health coverage benefits package; and
- Continued participation in the annual Commuter Challenge events.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with staff and guests by acknowledging the challenges associated with TDM goals and objectives that may include lack of access for walking, biking, equipment, ample opportunity for access to transit or other aspects that just make it difficult for guests or staff to participate in TDM strategies. Understanding participant's views and challenges will help inform future modification and improvement to the TDM plan and this will be prioritized as part of the annual reporting.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips

using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

Exhibit 6: Resident Contract

GUEST CONTRACT

The Homeless Services Center is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our facility. Any violations of our safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the building or on the premises is strictly prohibited and could be grounds for restriction from access.
- **Weapons of any kind are not allowed in the building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into the building or waiting areas. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access.**
- **Use of inappropriate speech can result in restriction of access. The City has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The City has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction to access.**
- Sexual activity of any kind is not permitted in the facility or on the grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the facility and on the grounds. This includes wearing shoes while moving around the facility to protect from injury.
- Out of respect for others, cell phones must be turned off or silenced after 8pm in the dorms. Guest phones are available for use. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**
- Electronic devices that do not emit light, are used with headphones and do not disturb other shelter guests may be permitted at the discretion of the supervisor on duty.
- The lights out in the dorms will be 8:30pm.
- Good personal hygiene is a priority. Showers are available with 24 hour access, personal hygiene items are available upon request from staff at the front desk.
- Guest laundry services are available, please see staff for any assistance needed.
- Clean blankets, towels and other linens will be provided.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- Lockers are available on-site. Please see a staff member to sign up. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- The City is not responsible for lost and stolen belongings. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Service Center ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests are expected to attend housing orientation the day following their intake to the service center for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please respect our neighbors and neighborhood at all times.

Agreements

- *I hereby accept shelter at the City of Portland Social Services Division Homeless Services Center and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.*
- *I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.*
- *I authorize the Social Services Division Homeless Service Center to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.*
- *I understand that Service Center Staff and/or management may restrict my access to the facility and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff and relating to staff at the Service Center.*

_____ _____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 7: Reasonable Rules

HOMELESS SERVICES CENTER POLICY – REASONABLE RULES

The **Homeless Services Center (HSC)** is a City run facility for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in the City run facility. In addition, the City reserves the right to refuse admission to the HSC to any individual whose presence is determined by the City to pose a danger to other individuals residing in the HSC or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in the HSC facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to the facilities or property or neighborhood
- Smoking or vaping is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 8: Neighborhood Engagement Strategy

Homeless Services Center

Neighborhood Engagement Strategy

Staff of the **Homeless Services Center** are committed to maintaining a positive relationship with our surrounding neighbors through engagement and collaboration.

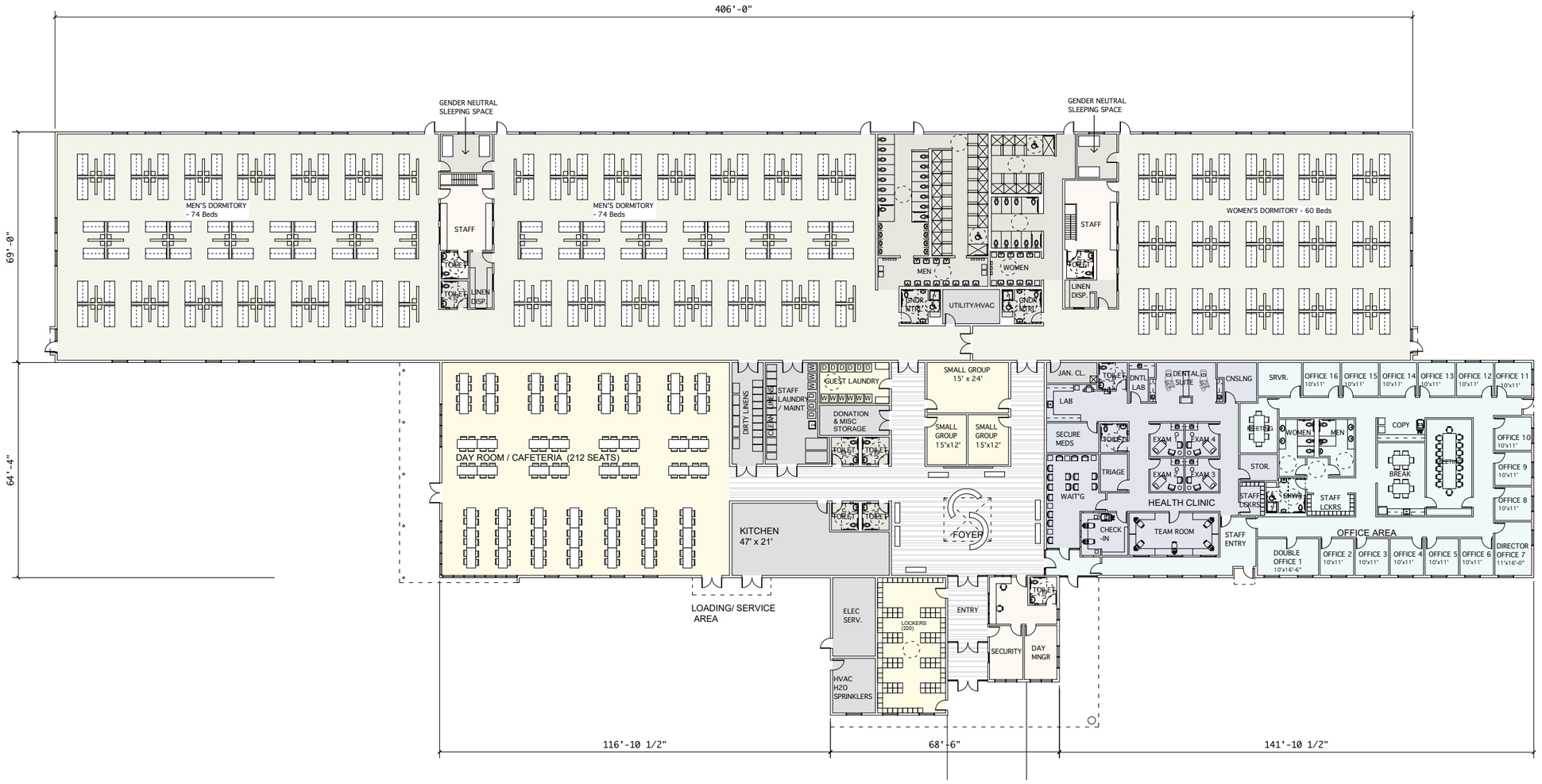
Staff build and maintain good relationships with both clients and neighbors and can assist in neighborhood issues as they arise. We work to ensure client behavior expectations are clear through regular Service Center meetings with clients. A recurring topic at these meetings will include having a positive impact on our neighboring community.

The HSC runs a 24-hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving guests along from a neighbor's front steps, etc. and can decrease police calls for service.

Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

The HSC offers ample locker storage to allow clients a place to leave their belongings while going on housing showings, job interviews, etc.

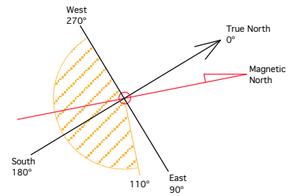
A representative of the HSC will attend a minimum of 75% of the monthly Riverton Community Association meetings.



FIRST FLOOR CONCEPT PLAN

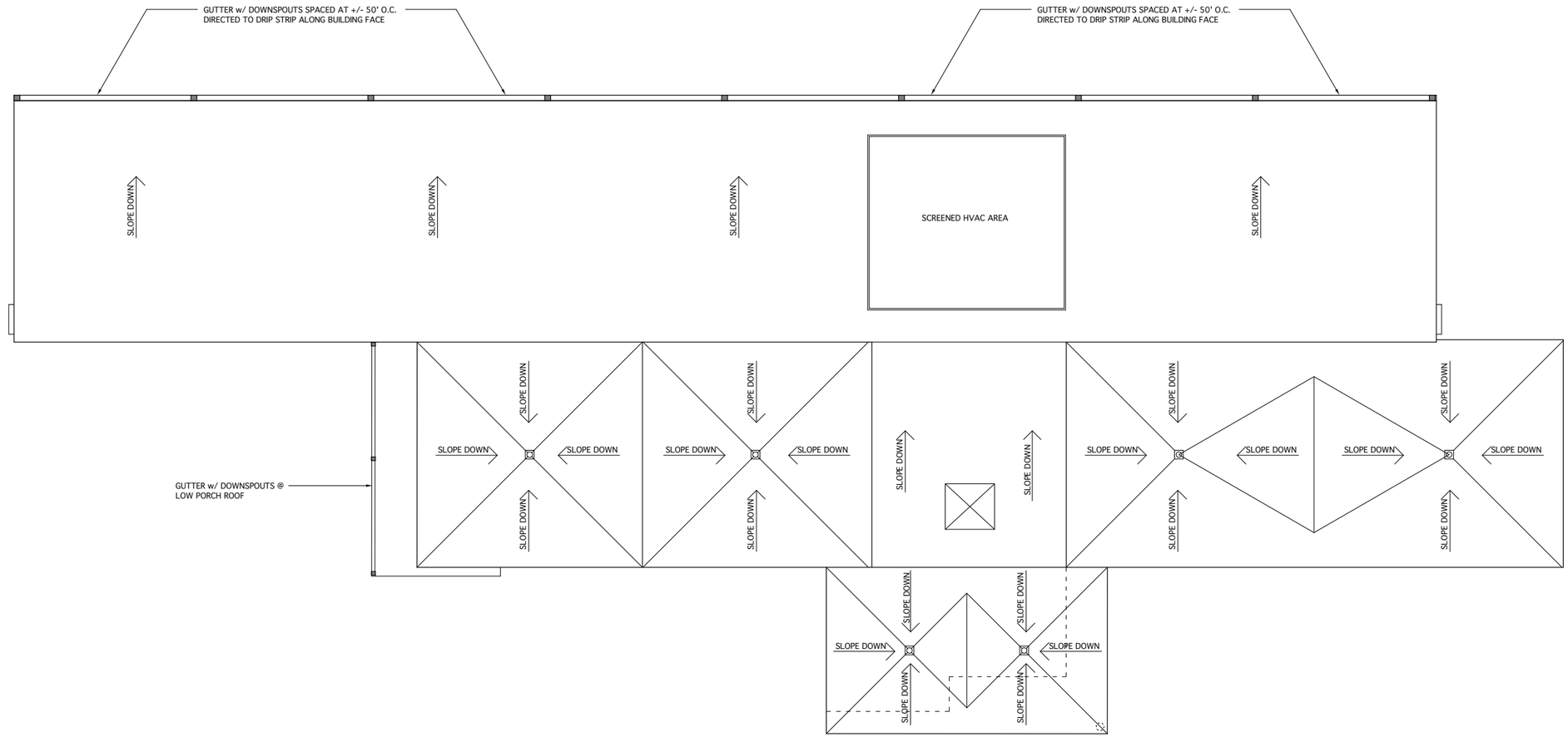
SCALE: 1/16" = 1'-0"

51,690 S.F.



Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com



ROOF PLAN

SCALE: 1/16" = 1'-0"

WSA
Winton Scott Architects

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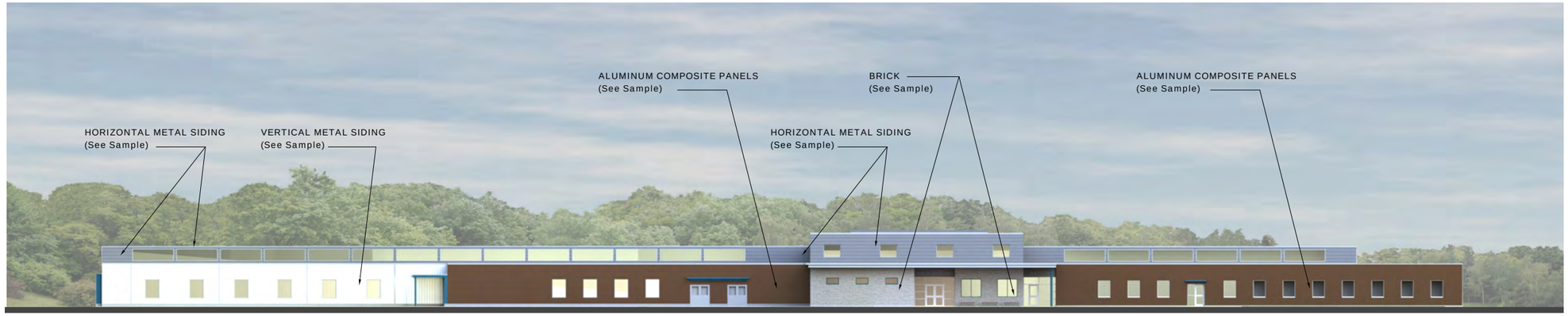
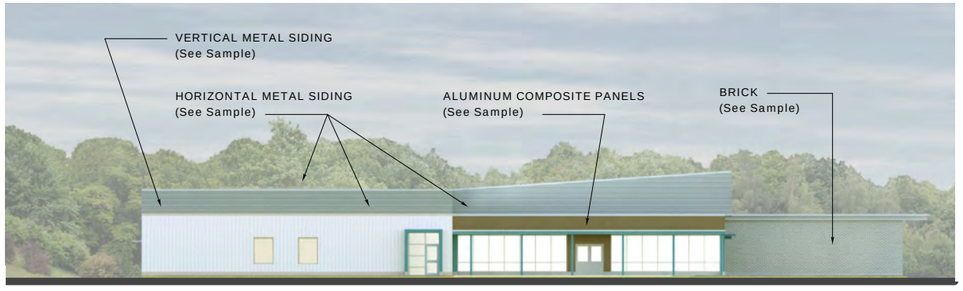
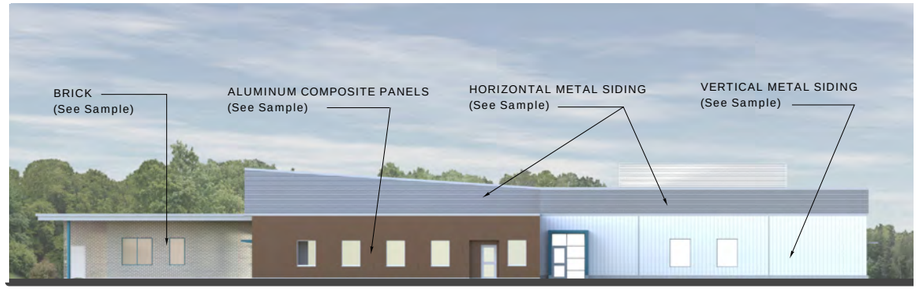


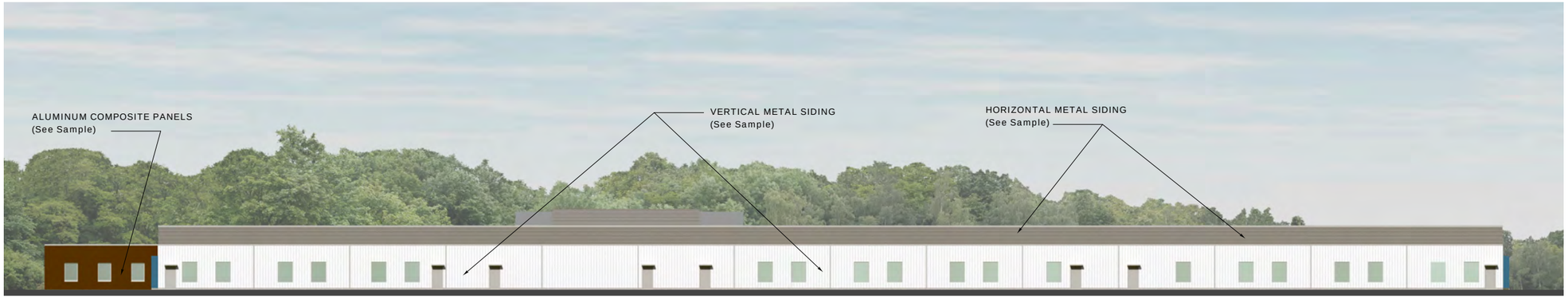
East Facade



South Facade



North Facade



West Facade

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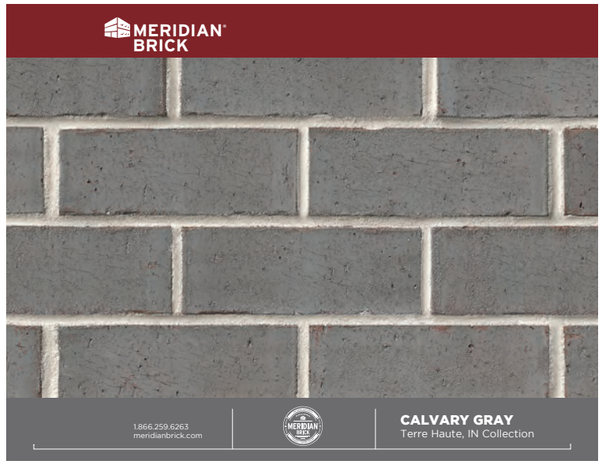
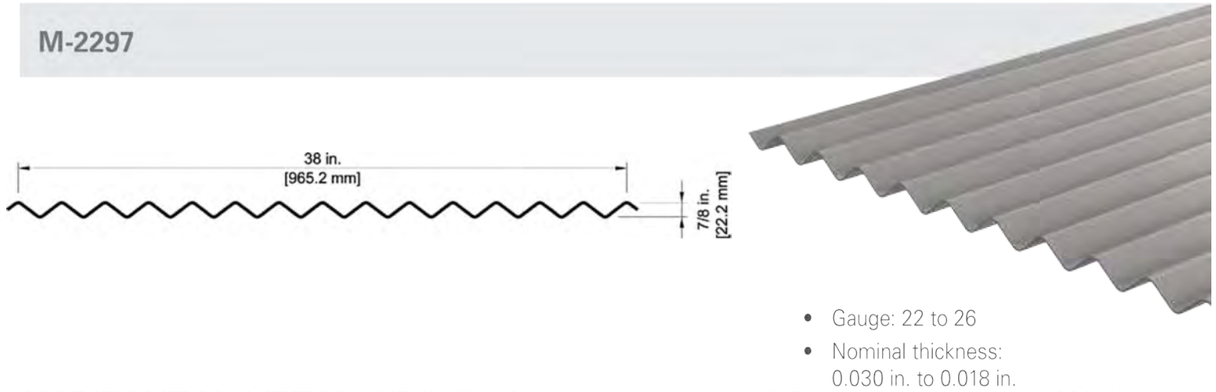


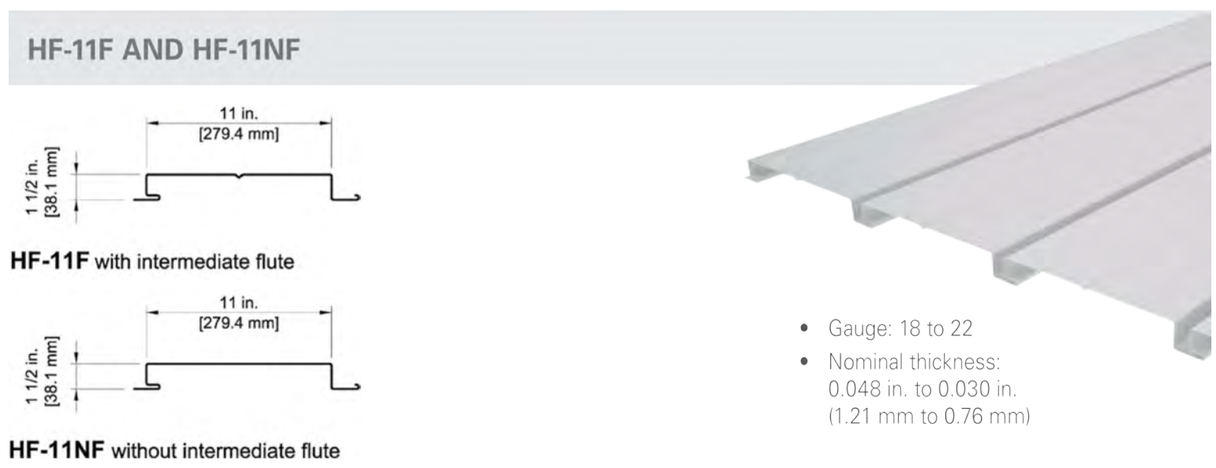
BRICK - Front Entrance Area



- Gauge: 22 to 26
- Nominal thickness: 0.030 in. to 0.018 in.

HORIZONTAL METAL SIDING - Upper portion of Dormitories and Walls at Central Gathering Space Sloped Roof. (Medium Gray)

ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



- Gauge: 18 to 22
- Nominal thickness: 0.048 in. to 0.030 in. (1.21 mm to 0.76 mm)

VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)

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Front Perspective

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Entrance Plaza

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Cafeteria / Dayroom Porch

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Main Gathering Space

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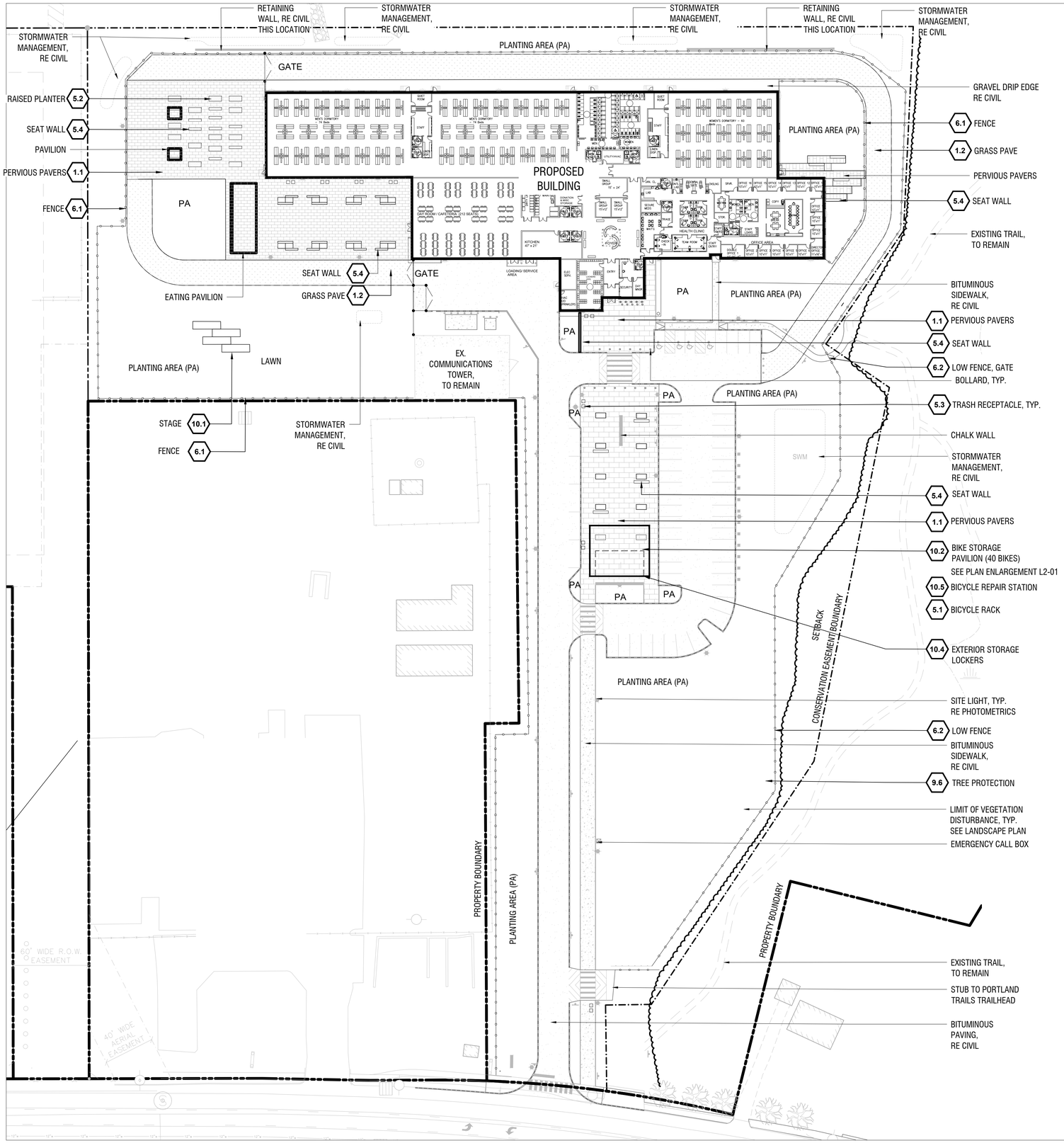

MATERIALS LEGEND

SYMBOL	
	HARDSCAPE; CONCRETE PAVERS A (SF TBD)
	HARDSCAPE; CONCRETE PAVERS B (SF TBD)
	BITUMINOUS PAVING (SF TBD)
	BITUMINOUS SIDEWALK (SF TBD)
	PERVIOUS PAVING (SF TBD)

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00

			DETAIL / SHEET
6.0	RAILINGS, BARRIERS, FENCING		
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

OWNER:
DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

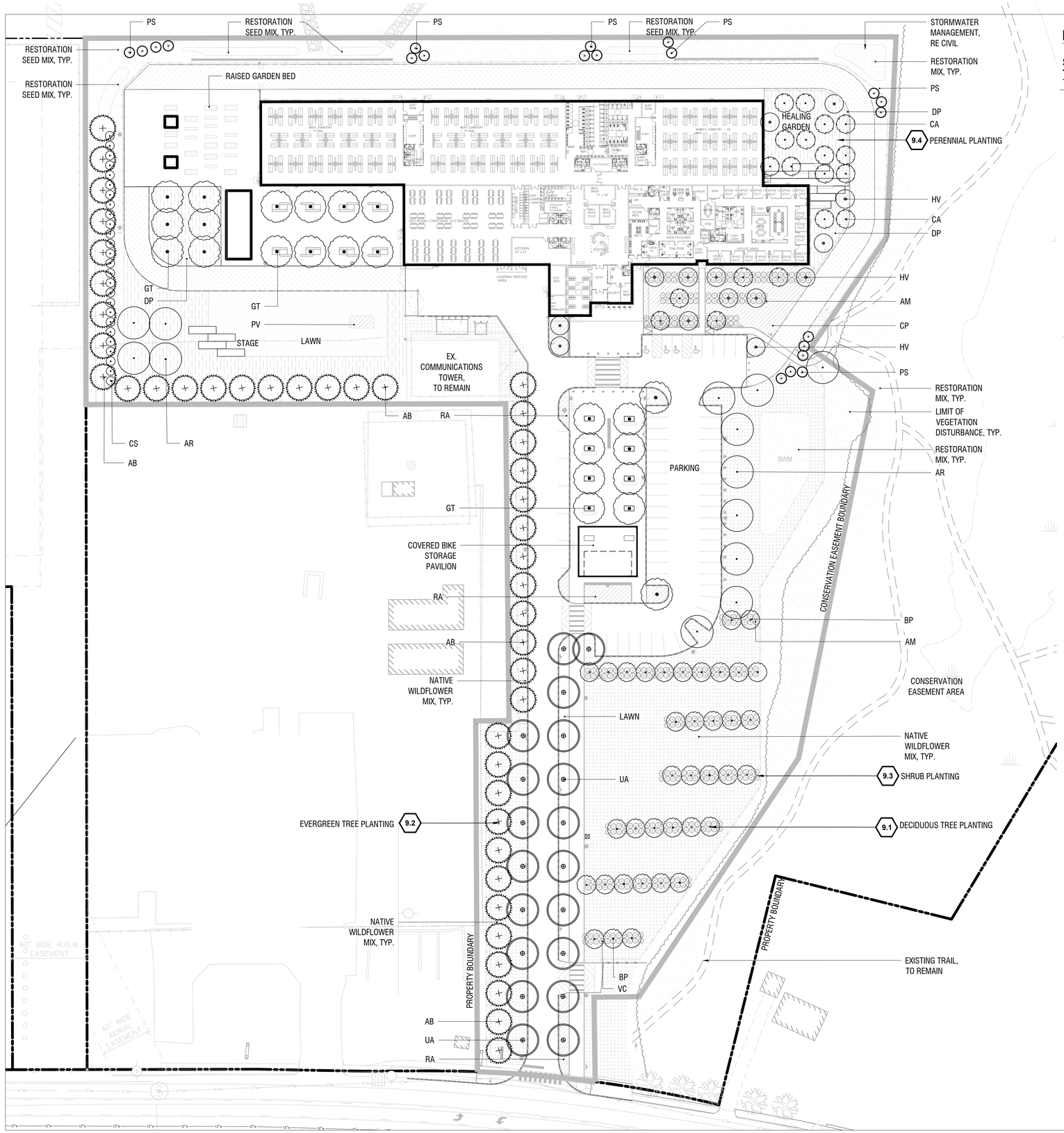
SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AR	ACER RUBRUM	RED MAPLE	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
	UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" MIN	PER PLAN
	PS	PINUS SEMBRA 'CHALET'	CHALET SWISS STONE PINE	TBD	3'-5' HEIGHT	PER PLAN
SHRUBS						
	CS	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
	AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	LOW BLACK CHOKEBERRY	TBD	TBD	PER PLAN
	RA	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	TBD	TBD	PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CP	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN
	MS	MISCANTHUS SINESIS	SILVER GRASS	TBD	TBD	PER PLAN
	PV	PANICUM VIRGATUM	SWITCHGRASS	TBD	TBD	PER PLAN
	PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX "
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

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ISSUE DATE

AUGUST 31, 2021

SHEET TITLE

LANDSCAPE PLAN

SHEET INFORMATION

L 2-00

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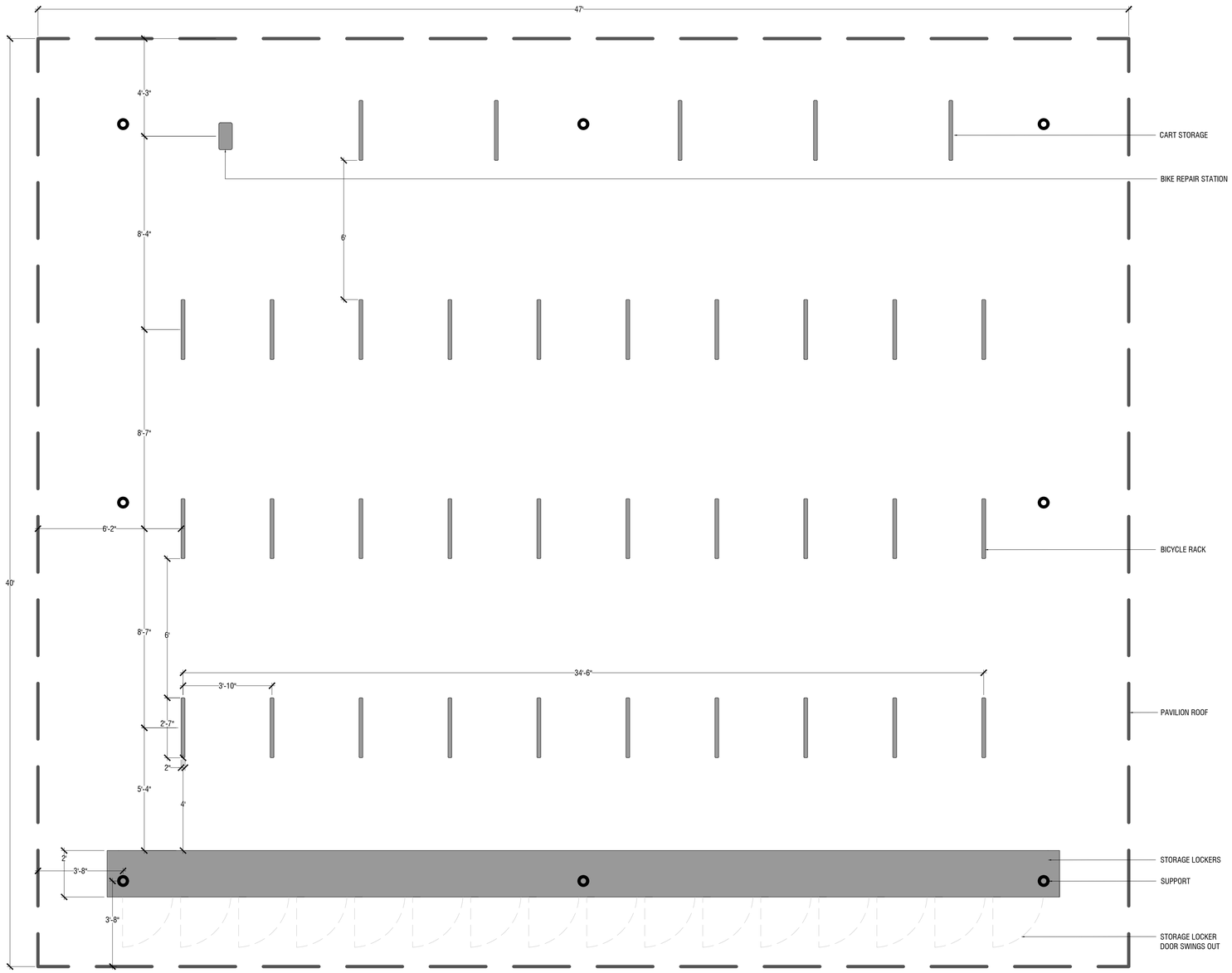
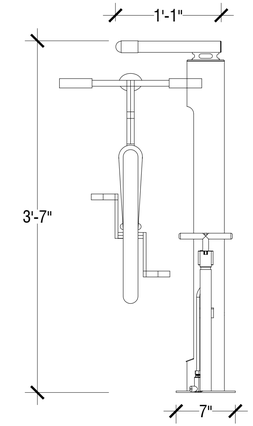


1 BIKE PAVILION PLAN ENLARGEMENT 10.3
NTS



2 BIKE REPAIR STATION 10.5
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
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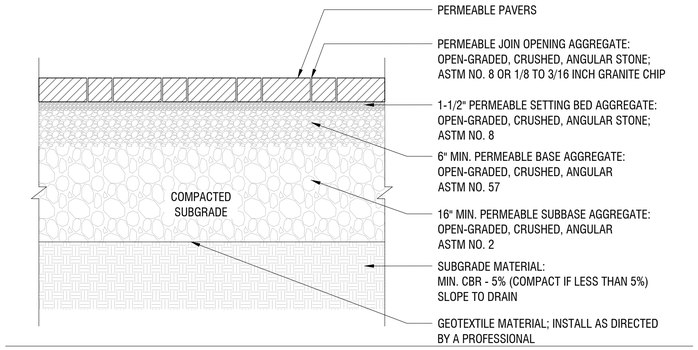
SHEET TITLE

LANDSCAPE
DETAILS

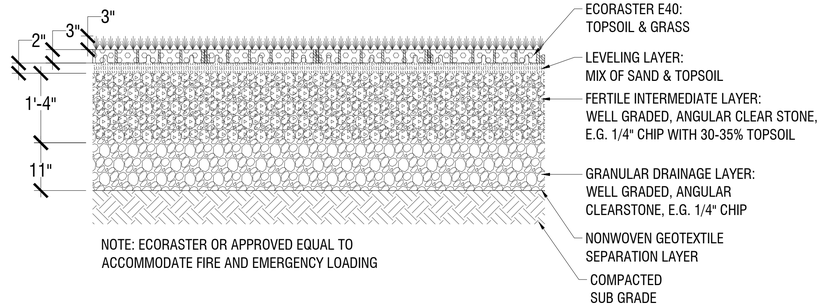
SHEET INFORMATION

L 2-01

NOT FOR CONSTRUCTION

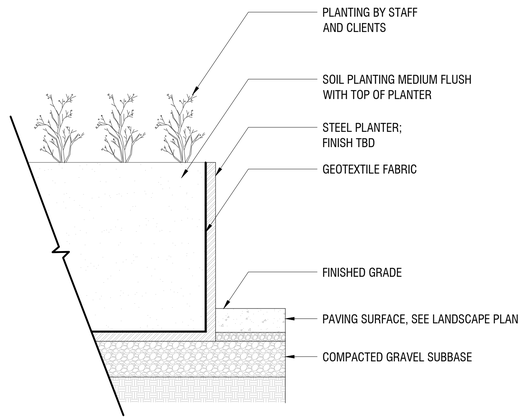


1 CONCRETE PAVERS - PERVIOUS
NTS

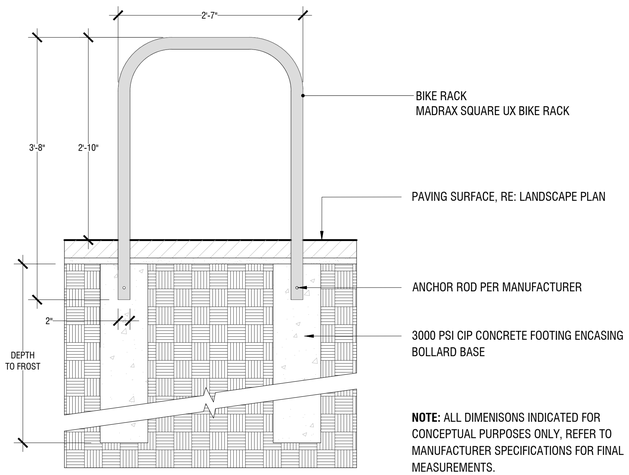


NOTE: ECORASTER OR APPROVED EQUAL TO
ACCOMMODATE FIRE AND EMERGENCY LOADING

2 GRASS PAVE
3/4"=1'-0"

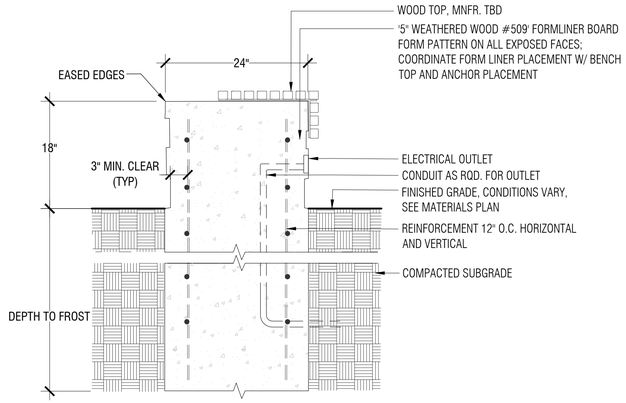


3 RAISED PLANTER
1":1'-0"

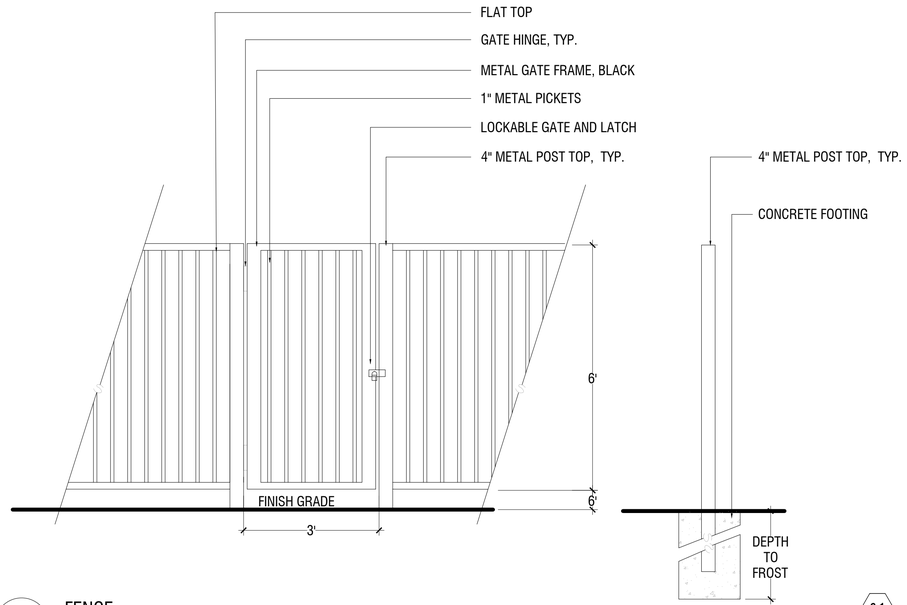


NOTE: ALL DIMENISONS INDICATED FOR CONCEPTUAL PURPOSES ONLY, REFER TO MANUFACTURER SPECIFICATIONS FOR FINAL MEASUREMENTS.

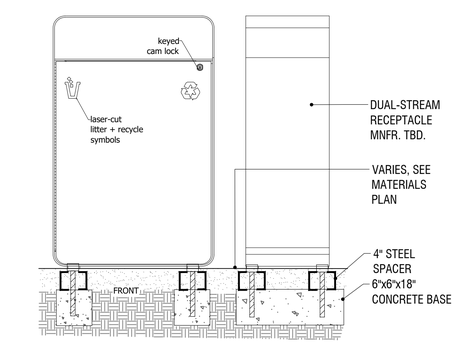
4 BICYCLE RACK
1":1'-0"



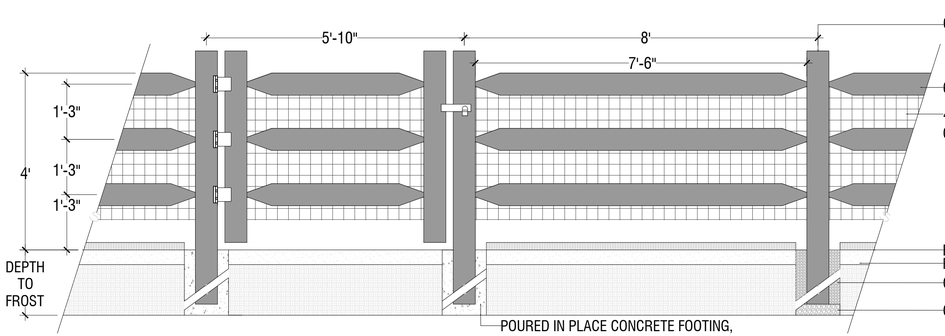
5 SEAT WALL
1":1'-0"



6 FENCE
NTS



7 TRASH RECEPTACLE
NTS



8 LOW FENCE
NTS

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00	
1.2	GRASS PAVE	2/L3-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
4.0	SITE WALLS/ EMBANKMENTS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
5.0	SITE FURNITURE		
5.1	BICYCLE RACK	4/L3-00	
5.2	RAISED PLANTER	3/L3-00	
5.3	TRASH RECEPTACLE	7/L3-00	
5.4	SEAT WALL	5/L3-00	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	FENCE	6/L3-00	
6.2	LOW FENCE	8/L3-00	
7.0	SITE LIGHTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L3-01	
9.2	EVERGREEN TREE PLANTING	2/L3-01	
9.3	SHRUB PLANTING	3/L3-01	
9.4	PERENNIAL PLANTING	4/L3-01	
9.5	STEEL EDGING	5/L3-01	
9.6	TREE PROTECTION	6/L3-01	
10.0	MISCELLANEOUS ELEMENTS		
10.1	STAGE	1/L3-02	
10.2	BIKE PAVILION	2/L3-02	
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03	
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02	
10.5	BIKE REPAIR STATION	2/L3-03	

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S
COLLABORATIVE AND
CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

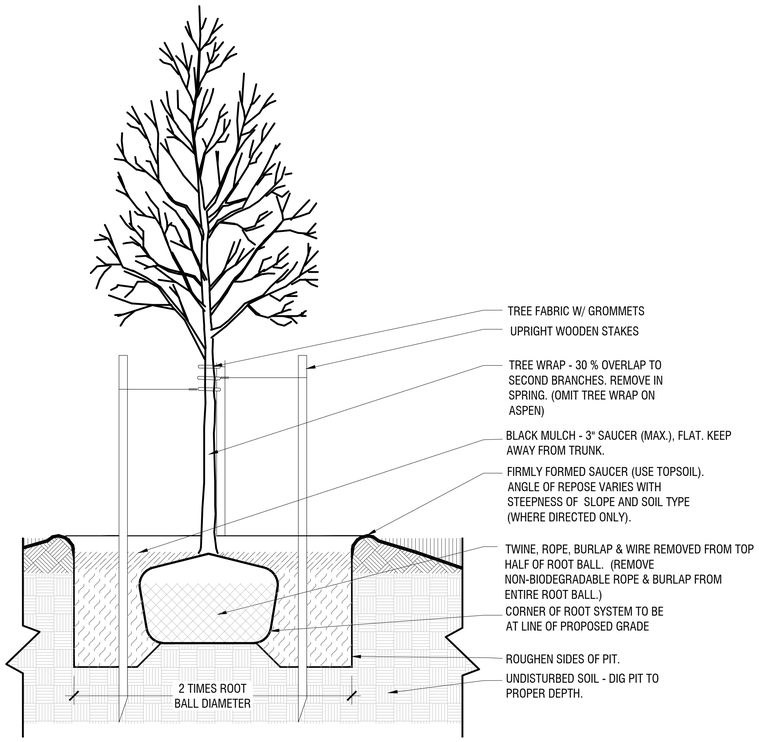
SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

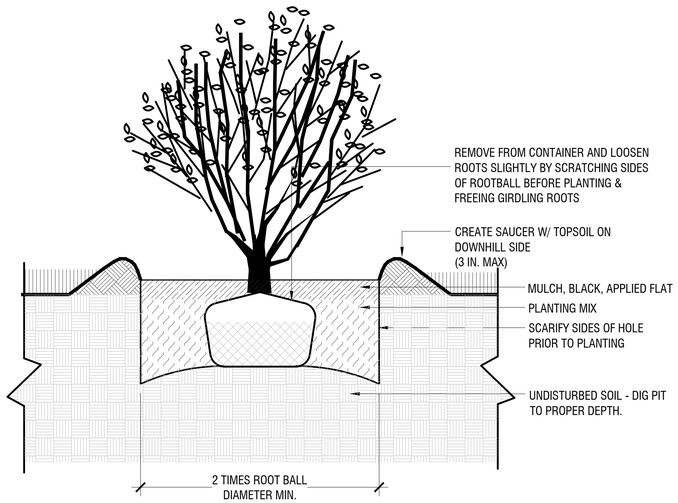
L 3-00

NOT FOR CONSTRUCTION



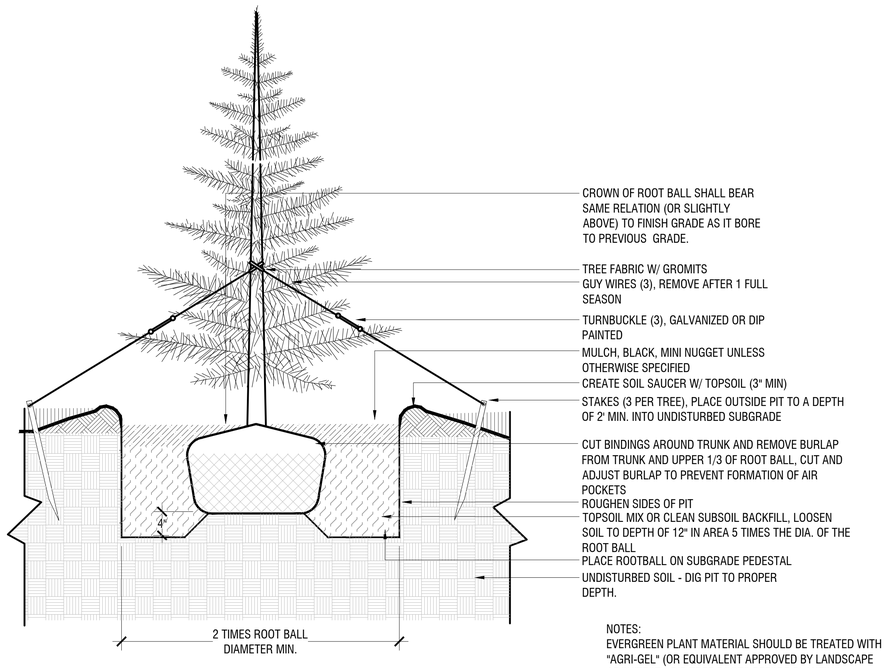
1 DECIDUOUS TREE PLANTING 9.1

1":1'-0"

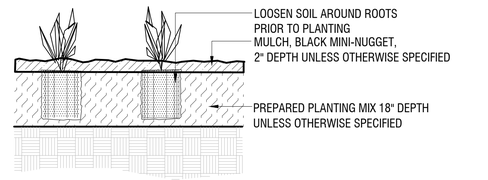


2 EVERGREEN TREE PLANTING 9.2

1":1'-0"

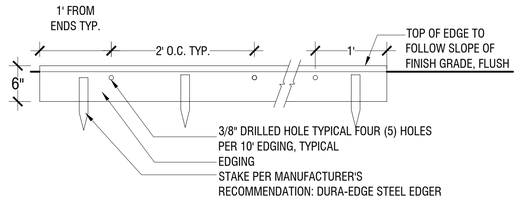


NOTES:
EVERGREEN PLANT MATERIAL SHOULD BE TREATED WITH "AGRI-GEL" (OR EQUIVALENT APPROVED BY LANDSCAPE ARCHITECT). DIP TREE ROOTS BEFORE PLANTING.



3 PERENNIAL & GROUND COVER PLANTING 9.4

1":1'-0"



4 STEEL LANDSCAPE BED EDGING 9.5

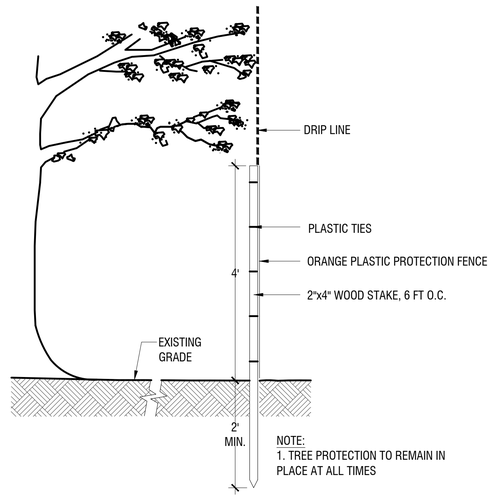
1":1'-0"

5 SHRUB PLANTING 9.3

1":1'-0"

6 TREE PROTECTION 9.6

N.T.S.



NOTE:
1. TREE PROTECTION TO REMAIN IN PLACE AT ALL TIMES

NOTES:
1. ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
2. TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

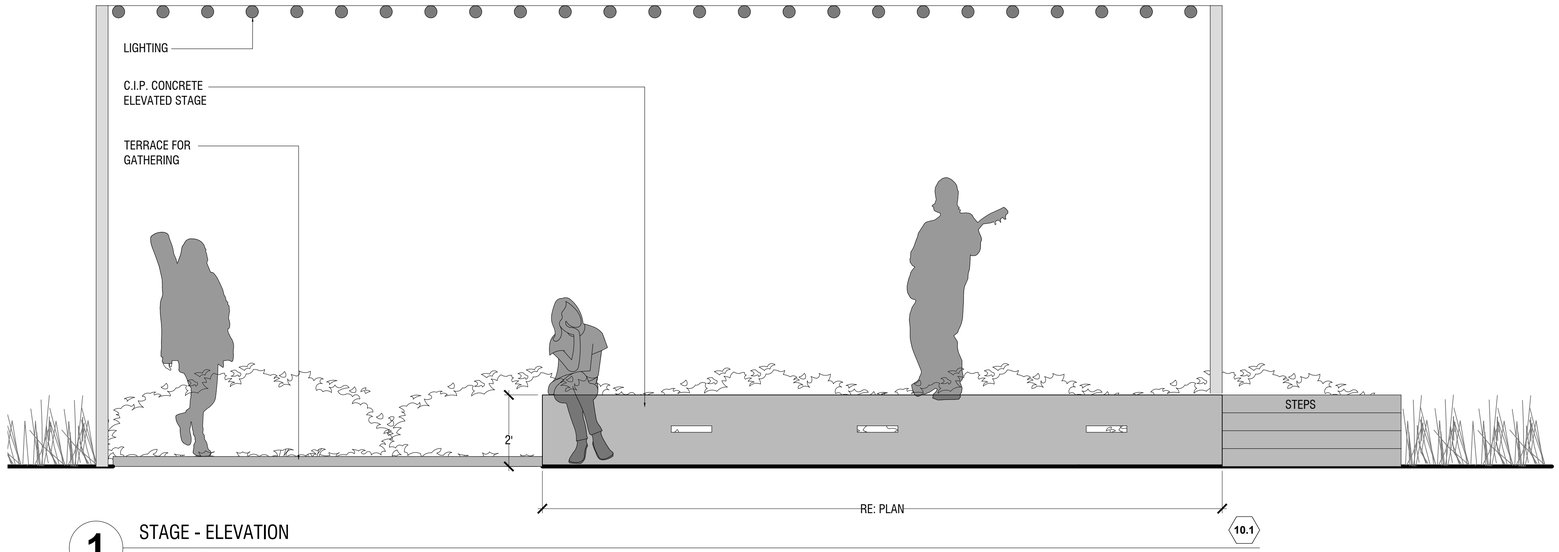
SHEET TITLE

LANDSCAPE DETAILS

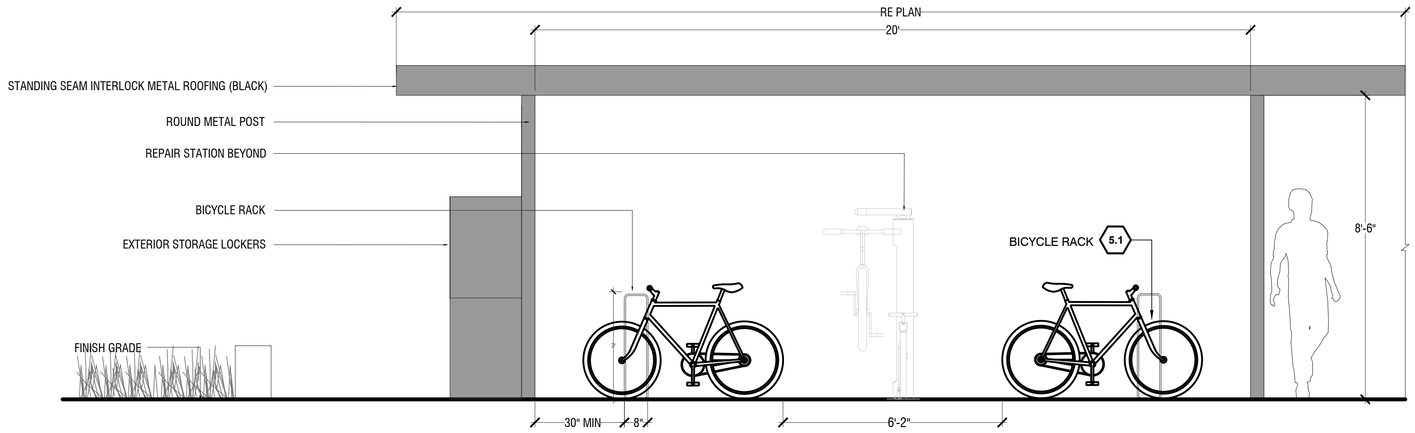
SHEET INFORMATION

L 3-01

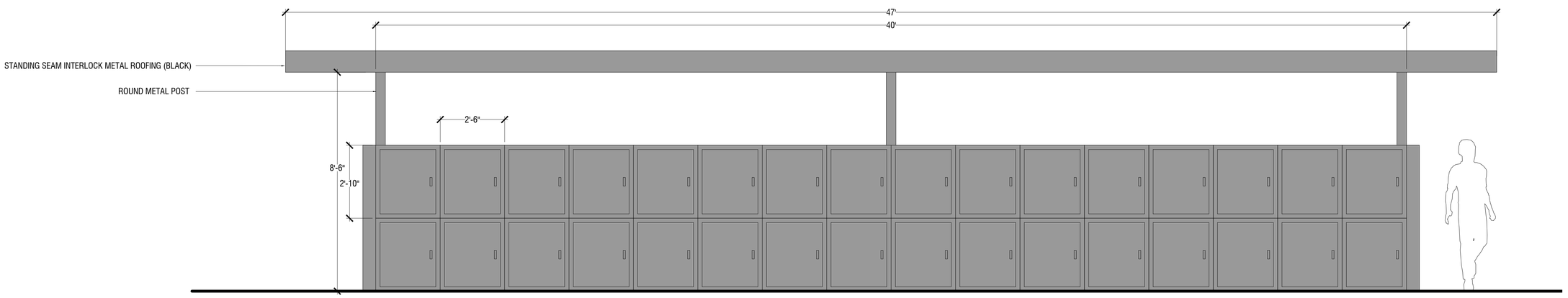
NOT FOR CONSTRUCTION



1 STAGE - ELEVATION
1/2":1'-0"



2 BIKE PAVILION
1/2":1'-0"
10.2



3 EXTERIOR STORAGE LOCKERS
1/2":1'-0"
10.4

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

ACETO LANDSCAPE ARCHITECTS
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SEAL

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CITY OF PORTLAND
HOMELESS SERVICES CENTER
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ISSUE DATE

AUGUST 31, 2021

SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-02

NOT FOR CONSTRUCTION

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

August 17, 2021

Ms. Celina Daniell
Gorrill-Palmer
707 Sable Oaks Drive
Suite 30
South Portland, ME 04106

Project: MHPC #1348-21 DC Predevelopment; City of Portland; 638 Riverside Street
Proposed Homeless Service Center

Town: Portland, ME

Dear Ms. Daniell:

In response to your recent request, I have reviewed the information received August 4, 2021 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

Based on the information submitted, I have concluded that there will be no historic properties (archaeological or architectural) affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act.

Please contact Megan Rideout at (207) 287-2992 or megan.m.rideout@maine.gov if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

PHONE: (207) 287-2132 FAX: (207) 287-2335

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

August 3, 2021

Celina Daniell
Gorrill-Palmer
707 Sable Oaks Drive, Suite 30
South Portland, ME 04106

Via email: cdaniell@gorrillpalmer.com

Re: Rare and exemplary botanical features in proximity to: #3824.01, Homeless Service Center, 638 Riverside Street, Portland, Maine

Dear Ms. Daniell:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received July 29, 2021 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Notice of Public Meeting Certification

I, Celina Daniell of Gorrill Palmer (Consultant), hereby certify that notices of Neighborhood Meeting and Planning Board Workshop signs were posted from July 16, 2021 to August 2, 2021 prior to the Neighborhood Meeting held on July 26, 2021 at 5:30 PM and the City of Portland Planning Board Workshop Hearing held on July 27, 2021 at 4:30 PM for the proposed project PL-001682-202 located at 638 Riverside Street. Photo documentation of sign in situ:

Signed,

Celina M. Daniell – Gorrill Palmer Consulting Engineers
July 20, 2021

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\G Abutters\Sign Certification\Sign Certification Homeless Center .docx

Relationships.
Responsiveness.
Results.

Delegated Review Authorization to the City of Portland for Homeless Service Center at 638 Riverside Street in Portland, ME

PREPARED FOR:
DC Predevelopment LLC &
City of Portland

July 2021

SUBMITTED BY:
Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, ME 04106
207.772.2515

July 23, 2021

Ms. Alison Sirois
MeDEP
312 Canco Road
Portland, Maine 04103

Subject: Homeless Service Center
638 Riverside Street
Delegated Review Authorization to the City of Portland
Applicant: DC Predevelopment LLC and City of Portland

Dear Alison:

On behalf of **DC Predevelopment LLC (Applicant) and the City of Portland (Co-applicant),** our office is pleased to provide the accompanying package of materials related to the proposed Homeless Service Center located at 638 Riverside Street in Portland. This submission package is intended to allow your consideration for the City of Portland Planning Authority delegated review of the site plans for the project under the Site Location of Development Act.

In accordance with the typical Site Location of Development application sections we offer the following abbreviated background by section. Further information is outlined in the accompanying materials that have been made part of the Level III Site plan application to the City.

Section 1 – Development Description

The applicant is proposing to construct a 51,624 SF Homeless Service Center with associated parking area for 28-30 vehicles. The existing 7.01+-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west. The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The proposed project will involve site work construction including building and foundation work, utilities construction including water, sewer, drainage, gas, power, and/or communications extensions into the buildings and landscaping. The proposed development will result in 3.44± acres of proposed impervious area. The site development will include stormwater management measures to satisfy the Chapter 500 Stormwater Management regulations including Basic Standards and General Standards. For additional information and background, please see the accompanying Cover Letter to the City in the Major Site Plan Submission material.

Section 2 – Title, Right or Interest

The City of Portland currently owns the property as evidenced in the deed recorded in CCRD Book 27825; page 68 attached to the Title, Right or Interest section of the Major Site Plan Application material. As outlined in City Council Order 281 – 20/21 the Portland City Council has authorized DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process.

Section 3 – Financial Capacity

See attached section made part of the City submission

Section 4 – Technical Ability

See attached section made part of the City submission

Section 5 – Noise

The development is classified as a minor noise generator. All HVAC equipment will meet the City's local noise standards for sound levels at the property line.

Section 6 – Visual Quality and Scenic Character

The site is not located in an area of significant visual quality or scenic character.

Section 7 – Wildlife and Fisheries

A letter has been sent to the Maine Fish & Wildlife and will be forwarded to your office upon receipt.

Section 8 – Historic Sites

A letter has been sent to the Maine Historic Preservation and will be forwarded to your office upon receipt.

Section 9 – Unusual Natural Areas

A letter has been sent to the Maine Natural Areas Program and will be forwarded to your office upon receipt.

Section 10 – Buffers

Various new tree plantings consisting of both evergreen and deciduous will be planted along the shared boundaries with the Lucas Tree Experts site and the Suburban Propane site, both located along the southerly sideline shared with those uses. See accompanying narratives that are part of the Major Site Plan submission. The City is the owner of the conservation land along the north and west sides of the property. The existing woods within these areas will remain as a permanent buffer to at least ½ the property perimeter.

Section 11 – Soils

A high intensity soil survey has not been performed for the site since the development will be served by public water and sewer utilities. A geotechnical investigation is currently being drafted by S.W. Cole which has found that the onsite soils have been found to be suitable to support the proposed development activity. Please see attached Stormwater Management Report for further information.

Section 12 – Stormwater Management

The stormwater management design will include measures to comply with the water quality treatment standards. A waiver is requested of the stormwater flooding standards since the site is directly tributary to the Presumpscot River, which is considered a major river.
The BMP's the applicant is proposing include:

- (5) Bioretention Filter BMP's
  - Four will be employed on the westerly (rear) of the site to treat are from the perimeter fire lane
  - One will be employed at the east side of the main parking field to treat runoff from the driveway and some portion of parking area.

- (2) Grassed Underdrained Soil Filter BMP's
  - One GUSF BMP will be employed in the southeast corner of the building to treat are from the east half of the building roof and some portion of fire lane and exterior gathering space
  - One GUSF will be located at the north side of the parking area to treat runoff from the main entrance/plaza area and some portion of the parking lot.

- (1) Roof Dripline Filter BMP
  - One drip edge filter BMP will be employed along the west end of the building to treat runoff from the west half of the building

- (3) Level Spreaders
  - Three level spreaders will be constructed around the perimeter of the site
  - All BMP's will discharge to the level spreaders or an existing closed drainage system which discharges to the west of the site.

Please see attached Stormwater Management Report for further information.

Section 13 – Urban Impaired Stream Submission

Not applicable – the site is tributary to the Presumpscot River.

Section 14 – Basic Standards

See accompanying Erosion Control details and narratives contained with the plan documents.

Section 15 – Groundwater

The development does not involve any new wells or onsite wastewater disposal. Groundwater is not expected to be encountered during construction as the observed groundwater depth is greater than 9' below grade. All stormwater management systems will be located with the bottom of the system at least 3' separated above the groundwater table.

Section 16 – Water Supply

The development will be served municipal water from the Portland Water District. The City of Portland requires a determination letter from the PWD, which will be supplied to them upon receipt.

Section 17 – Wastewater Disposal

The development will be served by municipal wastewater collection and conveyance and treatment at the Wastewater treatment plant. The City of Portland requires a wastewater capacity authorization from their DPW staff, which will be made part of their approval.

Section 18 – Solid Waste

The site will include a solid waste and recycling enclosure area for the placement of trash collection cannisters. A contracted waste hauler will be responsible for the removal of all waste on a routine basis.

Section 19 – Flooding

The development site is not located within a mapped flood area according to the City of Portland flood mapping.

Section 20 – Blasting

Not applicable to the project.

Section 21 – Air Emissions

The development will not result in any major sources of emissions including either point source or non-point sources. Any mechanical equipment including an emergency power generator will have exhaust that will comply with all local, state and federal limits.

Section 22 – Odors

The Development will not result in any major sources of odors as does not involve production, manufacturing or related odor sources.

Section 23 – Water Vapor

The development does not involve the large-scale emission of water vapor as it is not a processing plant or power generating facility.

Section 24 – Sunlight

The development will not block access to direct sunlight for structures utilizing solar energy.

Section 25 – Notices

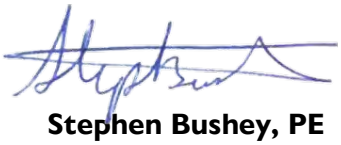
The project has been publicly noticed for both the City of Portland Planning Board workshop and a neighborhood meeting that will be held on July 26, 2020. As required, once the meeting has been held, supporting evidence and Certification of the Meeting will be filed with the City of Portland.

We trust that this information will allow your prompt consideration and response to the City Planning Department (James Rather – Planner jrather@portlandmaine.gov). The project is tentatively schedule for a Planning Board Workshop on July 27, 2021.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER



Stephen Bushey, PE
Senior Associate
Phone: 207-772-2515 x286
sbushey@gorrillpalmer.com

Attachments

c: James Rather, City of Portland

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GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

June 18, 2021

Ms. Christine Grimando
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Homeless Service Center
654 Riverside Street
Major Site Plan Application
Applicants: DC Predevelopment LLC and City of Portland

Dear Christine:

On behalf of **DC Predevelopment LLC (Applicant) and the City of Portland (Co-applicant),** we are pleased to provide the accompanying Major Site Plan Application package related to the proposed Homeless Service Center located at 654 Riverside Street in Portland, ME. This submission package is intended to meet the City's Submission Requirements as outlined in the Major Site Plan Application procedures. This submittal provides information in support of the Portland Land Use Code Article 14 – Major Site Plan Standards. We understand that the City of Portland will be responsible for completing the Third Amended Subdivision Plan[1] for the project area.

The City has engaged DC Predevelopment LLC in response to RFP #21041[2]. The development will include a 51,690± SF Homeless Service Center to include temporary residential use with a kitchen, dining area, staff offices, and a health clinic as well as parking area, outdoor recreational space and courtyard areas. The facility will have the capacity for up to 200 guests.

The development effort will include a team consisting of the following:

- Property Owner – City of Portland
- Applicant –DC Predevelopment LLC and City of Portland
- Architect – Winton Scott Architects
- Design Build Contractor – Cianbro
- Homeless Services Consultant – Amistad
- Civil Engineering and Permitting – Gorrill Palmer
- Landscape Design and planning – ALA Architects
- Sustainability Consultants – Thornton Tomasetti
- Geotechnical Engineer – SW Cole Engineering

[1] See Second Amended Riverside Subdivision CCRD Plan Book 218, page 199, specifically for Lot 4-2
[2] See Council Order 281-20/21 approving and authorizing the first letter agreement with DC Collaborative

EXISTING CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.
- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.

- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[3]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Riverside Street in the vicinity of the proposed site entrance includes single lane travel ways in each direction in addition to a center two-way left turn lane that benefits the many property driveways located along the street. There are variable width paved shoulders and curbing on each side of the street. Paved sidewalks exist on each side of the street except for a length or approximately 880 LF just north of the proposed site entrance, towards outer Forest Avenue.

[3] See CCRD Book 27677, page 125

Riverside Street Entrance Location

PROPOSED PROJECT

As taken from the RFP requirements the project is intended to support the following elements:

- Covered entryway
- Security office adjacent to main entrance with space for CCTV monitors
- Double entry access (enough space to do searches before shelter guests may enter shelter)
- 200-space locker room attached to the building with internal and external entry –unheated
- Multi-purpose room/dining area with 200 seating capacity. Area for buffet style serving and access to kitchen
- Kitchen with room/equipment to serve 200, food prep area for breakfast, lunch, and dinner items, salads, soups, sandwiches, materials. Walk-ins, storage, freezers to hold enough prepared meals to serve 200 one hot meal per day - for up to one week
- Staff office area – 16 offices, conference room, copy/office equipment and storage areas, male/women bathrooms, gender neutral bathroom with shower, break room, reception area, waiting area, server room and electrical room – direct access to parking area.
- 15-20 staff lockers
- Large dormitory for male guests – 144 raised beds – 6 feet between, Female – 60 beds.
- All beds to have electrical outlets next to beds.
- Observation area where staff has a direct line of vision into all sleeping space and multipurpose space – containing a small meeting room and office large enough to accommodate wheel-chairs. Areas for computers and printers.
- Laundry/utility room sufficient to provide on-site laundry for residents and general facility needs
- Bicycle storage

- Men/Women/ Gender Neutral bathrooms/showers
- Three to four multi-purpose meeting rooms for service center guests having meetings, classes, activities, etc.
- Storage areas and a mechanical room
- Maintenance room
- Exterior trash compactor and appropriate space for recyclables and compostable waste
- An enclosed court-yard sufficient to accommodate residents and accessible from inside the service center only (emergency exit directly outside but alarmed). Partial cover.
- Parking for 28-30 vehicles
- Attached Health Clinic with direct access from inside the service center and also a separate entrance from outside the service center including:
    - 4 exam rooms
    - Reception and waiting area
    - Patient/staff bathrooms
    - Lab
    - Storage
    - 2 offices
    - Isolation room

These activities will involve site work construction including building and foundation work, utilities construction including water, sewer, drainage, gas, power, and/or communications extensions into the buildings and landscaping. We understand that the site can be served by public infrastructure for water, sewer, electrical and communications, subject to confirmation as well as confirm the availability of natural gas to the site.

For purposes of establishing the use, the Homeless Services Center is considered an Emergency Shelter which is a Conditional Use within the IM/IH zones. Based upon the information provided by the City of Portland the following will be required as part of this development:

- An Easement is required to access and maintain the nearby City Communication Tower;
- An Easement at the site entrance is required to access Portland Trails network to the Presumpscot River;
- The City is responsible for amending the Riverside Street Industrial Subdivision Plan to include the subject parcel (7.01 acre Lot 4-2.); and
- Property to remain in City ownership.

The Major Site Plan and Conditional Use Applications are made part of this current submission.

In accordance with Section 6.5.6 Supplemental use-specific conditional use standards part B pertaining to Emergency shelters we offer the following information:

B. Emergency Shelters

1. *The facility shall provide adequate space for conducting security searches and other assessments.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

2. *The facility shall be designed with a centralized shelter operations office on each level providing sight lines to sleeping areas.*

   Supporting Evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

3. *A management plan adequately outlining the following areas shall be provided: management responsibilities; process for resolving neighborhood concerns; staffing; access restrictions; on-site surveillance; safety measures; controls for resident behavior and noise levels; and monitoring reports.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

4. *Adequate access to and from METRO service shall be provided. The facility shall be within a ¼ mile of a METRO line, or shall be within ½ mile of a METRO line and provide adequate indoor space to permit all shelter guests day shelter, as well as implement strategies to help residents utilize transit.*

   Supporting Evidence: The site is located approximately 0.3 mile from the transit stops of the METRO Route 2 along Forest Avenue. The building will provide for indoor space to permit shelter guests day shelter.

5. *The facility shall provide on-site services to support residents, such as case management, life skills training, counseling, employment and educational services, housing assistance, or other programs.*

   Supporting Evidence: See the accompanying Operations Management Plan from City Staff.

6. *Suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for shelter stayers shall be provided on-site.*

   Supporting evidence: See accompanying Operational Standards Key Plan by Winton Scott Architects for further information.

7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

   Supporting Evidence: The Site plan contains a plaza at the front of the building where guests may congregate. A second plaza area is also located to the south side of the building and that will contain space for guest to congregate, socialize and participate in activities.

CLOSURE

As outlined in the Major Site Plan submission requirements and checklists, we will upload the following materials upon authorization by City staff:

- General Application Documents
  - Cover Letter/Project Description/Operational Key Plan/Operations Management Plan
  - Major Site Plan Application Checklist/Conditional Use Application
  - Right, Title and Interest
  - Zoning Assessment
  - Existing and/or Proposed Easements (please see Survey Plan)
  - Waiver Request and Waiver Table
  - Financial Capacity
  - Technical Capability
- Transportation
  - Transportation Narrative
- Environmental and Landscape Features & Stormwater
  - Narrative to Address Standards
- Public Infrastructure and Safety
  - Narrative to Address Standards
- Site Design
  - Narrative to Address Standards
- Construction Management Plan
- Site and Architectural Plans

On behalf of **DC Predevelopment LLC and the City of Portland,** we look forward to your continued assistance on the project and we look forward to the next available workshop meeting with the Planning Board. As is required, once we complete the Planning Board workshop, the applicant will be conducting a Neighborhood Meeting(s) We anticipate this meeting will be conducted prior to the Public Hearing.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

Attachments

c: Kevin Bunker, DC Predevelopment, LLC
Drew Sigridson, Boulos Co.
Kristen Dow, City of Portland

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City of Portland Homeless Services Center

Management Plan

I. Overview:

The City of Portland Homeless Services Center (HSC) at 654 Riverside Street will be a state-of-the-art, one-story emergency shelter that will provide low barrier, temporary emergency shelter to individuals experiencing homelessness over the age of 18. The HSC will be open 24 hours per day, 7 days a week with on-site meals and a wide range of services including: health and mental health care, substance use treatment, housing assistance, peer support, case management, employment assistance and more. Please see **Exhibit 1** for a comprehensive list of services.

The HSC will further the City's mission by providing quality programming to low-income Portland residents that encourages dignity, self-respect, and self-reliance in the transition from public assistance to self-sufficiency. The HSC offers a space where our clients stay and staff can work in a respectful and safe environment. In collaboration with community partners, we will provide wide-ranging services to our consumers with compassion, dignity, and respect.

As with our current shelter, the HSC will serve a diverse population. Women, men, youth, veterans, LGBTQ+ individuals, individuals of color, refugee, immigrant & asylees, individuals fleeing domestic violence, and those struggling with substance use and mental health who are unhoused. The services at the HSC will optimize the services of the smaller specialized shelters through a robust referral process that maximizes resources across our system. This system offers the highest level of service by those most equipped to help.

The HSC is a one story building easily accessible to all. Our clients will be able to access the facility throughout the day and will not need to leave with their belongings, something they have been subject to in the past. Our large day space will have an area for meal services including a fully equipped kitchen where staff can prepare and serve meals. Indoor storage lockers, bathrooms with showers and laundry services that are all available to clients. Sleeping areas will have beds where each individual has a headboard charging station, allowing them a space to keep their phones fully charged to receive calls from potential landlords, employers or outside providers. The quad-bed pod layout provides increased ability to social distance when necessary and additional privacy.

The HSC will have a full service federally qualified health clinic (FQHC) operated by Greater Portland Health. The clinic will offer medical, mental health, substance use treatment and dental services on site. Also provided are small group rooms and offices which are utilized for peer support, specialized services and community providers to create wrap-around services for our clients. Please see **Exhibit 2** for a list of community partners.

II. Staffing and Management Responsibilities

The Homeless Services Center will be operated by a Management team consisting of a Shelter Director, Assistant Director of Shelter Operations and an Assistant Director of Housing Services. Amongst the three Managers there is on site coverage 6am-11pm, as well as 24/7 on-call rotation. In addition to the management team, the HSC will have a robust supervisory team with 24/7 coverage.

The HSC will be staffed 24/7 by our shelter attendants who are trained to provide a confidential safe space to those seeking temporary emergency shelter. Our shelter attendants are integral to everyday operations. They will assist new clients with orientation to the facility and assist in connecting clients to our housing team, as well as referring to other community partners on site to include the FQHC.

The HSC will have a team of dedicated housing counselors to work diligently with individuals experiencing homelessness to ensure their time in temporary emergency shelter is as brief as possible in the transition to self-sufficiency. The Homeless Service Center offers housing services to all clients accessing the service center and will have housing staff onsite 7 days a week from 6am-8:30pm. Housing-focused conversations occur with individuals from their very first night at intake and will be a collaborative effort to include staff from the Prevention and Diversion team. Clients attend a housing orientation to connect them to the most appropriate resources for their housing needs and each individual is assigned a housing counselor. We understand that each situation is unique and self-sufficiency looks different for each client. As such, we work with our clients to create individualized housing plans. At the City, we believe in the housing-first approach, "prioritizing permanent housing placement for an individual so that they can pursue their personal goals and improve their quality of life."[1]

A key part of our housing team are the housing retention specialists. They connect with clients as they transition from the shelter. In support of the housing first model the specialist wrap services around clients to ensure success. This can include helping them navigate landlord relations, accessing furniture, assisting them with food, including connecting to community meals, medical care and case management services. Our housing retention specialists increase the housing stability of clients and reduce the risk of returns to homelessness.

Our Administrative Assistant enters and tracks individualized client data into Homeless Management Information Systems HMIS (ServicePoint) for reporting, filing, and scheduling. They also work with management on specialized tasks, giving great attention to detail and a high level of accuracy.

[1] "Housing First"*National Alliance to End Homelessness* April 20, 2016
https://endhomelessness.org/resource/housing-first/

Our facilities team is an integral part of ensuring that the space is a safe, clean and inviting place for clients to access and staff to work. We have facilities staff onsite from 6am-2am. Our facilities team respond to all maintenance emergencies and work with all maintenance vendors to ensure our building and grounds are operating at peak condition. The team coordinates with the Barron Center staff to ensure that we have clean linens for our clients daily.

The HSC will have 24/7 security coverage that is provided by full-time non-uniformed City staff members. Security staff will be located at the entryway to the new facility to ensure safety for all clients seeking shelter. Security staff will conduct half hour perimeter well-being checks of both the interior and exterior of the facility. In addition to job specific training, our security staff also receive all training available to our full-time team detailed below.

The management team will continue to meet on a weekly basis to discuss pertinent HSC issues (policies, professional development of staff, client and neighborhood issues). The supervisor team meets on a monthly basis to discuss similar topics. The full staff attends mandatory monthly meetings for formal and informal training and full staff discussion around relevant topics.

At the City of Portland we value professional development; service center staff are required to take job specific training and are also afforded opportunities for growth through Citywide training. Training includes: new employee orientations, CPR and first aid, Narcan and Overdose Reversal/Response, mental health training, housing training, etc. For an exhaustive list please see **Exhibit 3.**

III. Client Access, Assessments and Access Restrictions:

The City's Health and Human Services Offices at 39 Forest Avenue will house the Prevention and Diversion Program. This will operate 7 days a week and will be the centralized assessment location for those seeking shelter. Staff will have the ability to connect with individuals before they enter an emergency shelter and enter homelessness to assist them in mitigating their emergency. Staff will work to seek alternate resources, connect with landlords to mediate evictions, and enroll individuals in preventative case management services. When other options are not available, individuals are referred to the shelter for intake and provided transportation to the HSC.

The HSC will have an entryway off of Riverside Street down a well-lit and inviting walking path. There is a dual door system, as well as an external entrance to locker facilities. The dual door system will be monitored by security staff, who will also have access to view both external and internal security cameras on site. Once buzzed through the secured double door entry system, 24-hour staff will greet new shelter clients and familiarize them with shelter services. Due to the confidential nature of our services, guests will not be permitted on-site with the exception of service providers. Adequate space for service providers will be provided and will allow for confidential meetings on site.

There will be an enclosed side courtyard for clients who want to access a private outdoor space. The area contains space for outdoor eating and exercise as well as raised garden beds for clients to participate in growing vegetables and flowers. As an extension of our fenced-in courtyard, there will be fencing along the back of the property running parallel to the river to provide increased safety for our clients.

IV. Transportation

Homeless Services Center will include a City operated van as a shuttle service to clients. The shuttle will operate throughout the day to stop at service centers for appointments as well as get back to the facility. A regular stop will include the on-peninsula Prevention and Diversion Center for those clients who have been referred to emergency shelter services. This transportation service will allow clients continued uninterrupted access to services they currently utilize. In addition to the shuttle van the Homeless Services Center will continue the long standing practices of Oxford Street by using taxi vouchers, metro, and our current vehicles for transportation and follow-up services.

V. On-Site Surveillance

Staff at the HSC will assist people in need of temporary emergency shelter services and will provide a clean, safe, and secure environment at all times. The HSC premises are staffed 24 hours a day by awake and alert staff members, including City security staff. Clear sight lines will allow staff easy visibility across dormitories and day space to maintain safety.

Both staff and security do perimeter checks to ensure the safety and wellbeing of clients every half hour. These perimeter checks include the inside of our facility and bathrooms, as well as the outside of our facility including the courtyard, property lines and neighboring area. All staff members carry portable two-way radios and are trained in how to communicate their location and situation in an emergency.

Cameras will be mounted externally for easy surveillance of the perimeter. External lighting will be placed around the perimeter of the building to ensure it is well lit for arriving clients, as well as staff conducting safety checks. Camera monitors will be visible from the security office, which will be staffed. Cameras are also mounted in internal common spaces. Camera placement, lighting and staff monitoring recommendations came from a 2018 client survey.

VI. Safety Measures.

The City of Portland takes the safety of the clients we serve, our staff and our neighbors seriously.

Upon intake, each client will sign a resident contract (please see **Exhibit 4 ***current contract) which clearly outlines the shelter rules and behavior expectations. This is reviewed carefully with each client to ensure that it is understood. Larger copies are also posted in common spaces for client review as needed.

The mission of maintaining safety for all clients may involve making crucial decisions about clients who are displaying behavioral difficulties and who are impacting their own safety, staff safety, the safety of others and/or the safety of the entire shelter population. Staff will use verbal de-escalation tactics in an attempt to calm conflicts and to intervene in negative behavioral situations. Staff receive training in Verbal Judo and Crisis de-escalation techniques. Staff also partner with The Opportunity Alliance Crisis Response Services as needed. Staff receive training on effective communication over two way radios to emergency responders including 911 and non-emergency dispatch. Staff work with all first responders including Portland Police Department, Portland Fire Department and Medcu to facilitate good communication between departments and stay abreast of and address emerging issues. After any critical incident staff debrief the incident together and provide check-ins with any affected clients while maintaining confidentiality and utilizing a trauma-informed approach.

VII. Controls for Client Behavior and Noise Levels:

The HSC presents a unique opportunity to incorporate security considerations and neighborhood impact into the building design and facility operations on the front end. Trauma-informed structural design impacts client success as well as the neighboring community. This HSC was designed to be open and inviting for clients and to empower them to become fully self-reliant; it was also designed to maximize the safety, security and privacy for those seeking shelter- a historical problem for those unhoused in Greater Portland.

The Homeless Services Center will continue the shelter's model of being a low barrier shelter. Low barrier means we do not require identification at time of entry, income verification, sobriety, etc. Low barrier does not mean there are no rules or behavior expectations. Making these expectations clear and utilizing progressive discipline with consequences helps us meet our responsibility to provide a safe place for our clients, staff and neighbors. These expectations are distilled in the Reasonable Rules policy (see **Exhibit 5** *current policy). We hold regular house meetings to elicit feedback from clients regarding a variety of topics including operational issues and policies. Frequent discussion topics at house meetings also include housing services, community resources available, operational changes, reinforcement of important shelter rules and guidelines, including our good neighbor policy. The Reasonable Rules policy will be revisited annually.

VIII. Neighborhood Concerns:

City of Portland's Oxford Street Shelter Staff recognize that we are part of a neighborhood and are committed to being a good neighbor. Conversations begin with clients regarding being a good neighbor at intake. Additionally, we currently have a Neighborhood Engagement Strategy (please see **Exhibit 6** *current policy) recognizing that our neighbors are an important community partner. The Neighborhood Engagement Strategy will be revisited and updated at least twice per year to reflect HSC surroundings, the neighborhood and any neighborhood needs or concerns.

Neighborhood safety concerns are our safety concerns and we work to mitigate those as quickly as possible, recognizing that we want to have a positive impact on our community. As mentioned above, staff conduct perimeter checks every half-hour around our facility, grounds and surrounding areas. The HSC staff will also have a 24 hour hotline (phone number) that connects neighbors

directly to the Homeless Service Center staff. Concerned neighbors are invited to call and discuss any issue, concern or compliment. Staff would also welcome the opportunity to attend any Neighborhood Association meetings.

IX. Monitoring:

The HSC management team will provide the City of Portland's HHS Department with reports on a regular basis as required. These reports may include:

(i) Number of unique individuals served at the shelter
(ii) Total number of bednights accessed at the shelter
(iii) Number of intakes during a reporting period
(iv) Total number of individuals who had previously been unsheltered and staying outside in Portland
(v) Total number of individuals who are defined as having long time stayer status
(vi) The average length of stay
(vii) Number of housing placements
(viii) Record of neighborhood concerns and resolutions
(ix) Summary of meetings with individual neighbors, neighborhood associations and businesses
(x) Number of Criminal Trespass Orders (CTO) issued, the reasons for those CTOs, the length of those CTOs, and whether the person issued the CTO has been issued a CTO previously
(xi) Record of police calls for service related to mental health, substance use, crime or other reasons and outcomes
(xii) Any additional information requested by the Department of Health and Human Services and/or the HHS Public Safety Committee.

In addition to reporting requirements at the City level, the Homeless Services Center will submit reports to funding sources as required; those sources currently include Maine State Housing Authority, State of Maine DHHS and HUD. The Homeless Services Center will continue to report statistics to ESAC (Emergency Shelter Assessment Committee) monthly.

Exhibit 1: Increased services

- A more comfortable 24-hour facility
- Community partner outreach on-site
- Employment services
- General Assistance staff
- Increased access to public transportation
    - Husky line
    - City of Portland shuttle
- Increased bathrooms for day use
- Inside lockers
- Laundry services
- Meals
- On-site health care clinic
    - Mental health care
    - Substance use treatment
    - Dentist services
- Peer services

Exhibit 2: Service Providers Planning to Offer Services or Outreach On-Site[2]

- Amistad
- Catholic Charities Maine
    - Refugee and Immigration Services (RIS)
- City of Portland
    - Social Services
        - General Assistance
        - Helping Individuals Regain Employment (HIRE)
    - Public Health
        - Mobile Medical Project
        - Needle Exchange Program (NEP)
- Cultivating Community
- Frannie Peabody Center
- Goodwill Northern New England
- Greater Portland Health
- Homeless Voices for Justice
- Maine Department of Health & Human Services
    - Adult Protective Services
- Milestone Recovery
- Pine Tree Legal Assistance Inc.
- Portland Adult Education
- Portland Public Library
- Preble Street
- Sexual Assault Response Services of Southern Maine (SARSSM)
- Spurwink
- The Opportunity Alliance
    - Project for Assistance in Transition from Homelessness (PATH)
- Through These Doors

[2] This list appears in alphanumeric order.

Exhibit 3: Staff Training and Professional Development[3]

- Anti-Trafficking Training
- Bloodborne Pathogens training
- Cardiac Science: AED All Staff Training
- Customer Service Training
- Diversity and Inclusion Workshop
- Emergency Action Plan training
- Equal Access to Housing training by GLAD
- First Aid and CPR
- General Assistance Training
- HMIS training
- Housing Training for Supervisors
- In their Shoes Refugee Training
- Introduction to Cultural Competency
- Kepro Training
- Language Access Training
- Mental Health First Aid Training
- Military Culture 101
- Munis Training
- Narcan/Overdose Reversal/Response Training
- National Alliance to End Homelessness Conference
- New Employee Orientation
- New Per Diem Training
- Public Charge Training by ILAP
- Rapid Resolution Housing Training
- Reasonable Suspicion for Supervisors
- Serious accident reporting
- Trauma Informed Care and Compassion Fatigue by Maine Behavioral Health
- Tyler Training
- Understanding and Supporting LGBTQ Individuals
- Verbal Judo Training
- Violence Against Women Act training by Through These Doors
- Workers Compensation for supervisors

[3] This list appears in alphanumeric order.

Exhibit 4: Resident Contract

GUEST CONTRACT

The Oxford Street Shelter is operated by the CITY OF PORTLAND to offer safe, temporary shelter to homeless individuals at least 18 years of age. Support services staff are available to work with guests to secure transitional to permanent housing and to help form linkages with other community resources. The following rules are intended to provide a safe and comfortable environment for all guests accessing our Shelter. Any violations of our Shelter safety protocols will not be tolerated.

Rules & Responsibility

- Illegal drugs and drug paraphernalia are not allowed in the shelter building or anywhere on the premises.
- Alcohol and marijuana are not allowed in the shelter building or anywhere on the premises.
- There is no smoking of any kind in the building at any time, or within 25 feet of any window or entrance/exit.
- Using, selling, purchasing, or distributing any form of illegal drugs, alcohol, or marijuana in the shelter building or on the premises is strictly prohibited and could be grounds for restriction from access to shelter.
- **Weapons of any kind are not allowed in the shelter building or on the premises. Including but not limited to: Guns, Pellet/BB Guns, Paint Guns, Stun Guns/Tasers, Knives of any kind, Multi-tools, Screwdrivers, Walking sticks or canes not otherwise prescribed, etc. This list is not exhaustive.**
- **All guests and their belongings are subject to immediate search or random searches upon entry and/or re-entry into any of the shelter buildings, waiting areas or overflow sites. Any illegal drugs, alcohol, weapons or other contraband will be confiscated and discarded by staff or Portland Police for safe discard.**
- **No fighting, intimidation, provocation, threatening, or verbal abuse at any time. Any acts of violence will result in immediate revocation of access to shelter.**
- No use of profanity/swearing. No loud music on property. No horseplay or aggressive behavior/language on property.
- **Use of inappropriate speech can result in restriction from shelter access. The shelter has a zero tolerance policy for racial slurs/derogatory language and hate speech.**
- **The shelter has a zero tolerance policy for sexual harassment. Engaging in harassing behaviors can result in restriction from shelter access.**
- Sexual activity of any kind is not permitted in the shelter or on shelter grounds.
- You must be appropriately dressed (*i.e. fully clothed)* while in the shelter and on the grounds. This includes wearing shoes while moving around the shelter.
- Cell phones must be silenced or turned off while in the building. Guest phones are available for use during daytime hours. **For reasons of client confidentiality, there is no filming allowed inside the shelter.**

- Good personal hygiene is a priority. Showers are available after check in. Personal hygiene items are available upon request from staff at the front desk. The available personal hygiene items include: soap (in the showers), towels, toilet paper, shaving cream, toothbrushes, toothpaste, and combs.
- Outdoor restrooms are available between 8am & 8pm daily.
- Blankets, towels and linen must be returned and placed in the bins at the front desk on the 1st floor and may not be removed from the shelter.
- Personal linens such as: blankets, sheets and pillows, are not permitted in the building and are not to be used in the dorms.
- All guests are expected to keep the building and grounds clean by disposing of all trash in appropriate containers that are located throughout the facility.
- The shelter curfew (lights out) is at 8:30pm.
- Electronic devices that emit light and/or noise are not permitted to be used in the Shelter after lights out (8:30pm). Devices that do not emit light and are used with headphones and do not disturb other shelter guests may be permitted at the discretion of shelter management or the supervisor on duty.
- Once you have checked in and have been assigned a bed, you may leave the building but stay on property for up to 30 minutes. If you leave the building for more than 30 minutes, you will be considered to have left for the night. If others are waiting for bed space, the bed you were assigned may be reassigned to the next person waiting. If at any time you leave property you are at risk of having your bed stripped and reassigned. If you leave before 11pm and return you may be checked back in once. If you leave after 11pm you will not be checked back in.
- The shelter does not allow check-ins past 2am.
- All guests must be out of bed no later than 7:30am (earlier in some areas).
- The City is not responsible for lost and stolen belongings. Any items left behind or unattended will be discarded immediately. You may bring into the facility the amount of personal possessions that you can reasonably carry by yourself in one trip. You are not permitted to bring shopping carts, carriages, and similar carrying devices into the building.
- Shelter staff is not permitted to hold, monitor or administer medications for you. If you have medication that must be refrigerated, you will be able to store your medication in a refrigerator designated for medication storage only. You store your medications in this refrigerator at your own risk.
- All individuals who access the shelter must be able to safely exit the building in the event of an emergency, guests also must be able to ambulate to meals on their own and toilet themselves. Staff are not able to provide medical assistance. If you feel you need medical assistance at any time please notify staff and we will assist you in contacting the appropriate resource.
- Lockers are available onsite. Please see a staff member to sign up. Lockers are only accessible from 5am-6am, 9am-10am, 1pm-2pm and from 8pm-9pm daily. You must have a picture ID to access your locker. Only you are able to access your locker and you may not access the locker of any other guest. There is a limit of one locker per guest.

- Day services are available from 8:30am-3:30pm. You must check in on the ramp side of the property.
- The shelter dayroom is open Monday-Friday from 3:30pm-7:30pm. Hours may vary on weekends and holidays, or in case of inclement weather.
- Shelter ID's are available daily at housing orientation from 1:00pm-2:00pm. All guests must attend housing orientation the day following their intake to the shelter for important referrals to services. If you have questions or concerns please ask a supervisor.
- Please stay out of the street if outside of the courtyard area & respect our neighbors and neighborhood at all times.

Agreements

- I hereby accept shelter at the City of Portland Social Services Division Oxford Street Shelter and consent to abide by all of the rules and regulations and procedures listed above. I understand that the City of Portland is not responsible for any lost, stolen or discarded items.
- I understand that I am applying for General Assistance through the City of Portland Social Services Division to pay for my Shelter bed night stay and that at any time in the future I am found to be eligible to receive Supplemental Security Income (SSI) benefits, an amount equal to the amount of public assistance given to me may be deducted by the Maine Department of Human Services from my first retroactive payments of SSI benefits.
- I authorize the Social Services Division Oxford Street Shelter to release any information necessary to determine General Assistance eligibility and understand that this information may also be used in the formulation of case management plans and hereby give my consent. As provided by the General Assistance statute, this information will not be given to the general public.
- I understand that Shelter management may restrict my access to Shelter if I turn down an option for housing.
- I understand that Shelter Staff and/or management may restrict my access to the Shelter, dayroom and/or grounds if I violate any of the rules listed above and that I have the right to grieve decisions made by staff relating to staff at the Shelter.

_____ _____

_____

Guest Signature Date

Guest Name Printed

_____ _____

Staff Signature Date

In accordance with title VI of the Civil Rights Act of 1964 (42 U.S.C. s 2000 et.seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. s794), the Maine Human Rights Act (5 MRSA 4551, et.seq.) and the Age Discrimination Act 1975, as amended (42 U.S.C. s6101 et. Seq.), the City of Portland Social Services Division does not discriminate on the basis of race, sexual orientation, national origin, handicap or age in admission or access to treatment or employment in its program or activities.

Exhibit 5: Reasonable Rules

OXFORD STREET SHELTER

SHELTER POLICY – REASONABLE RULES

The **Oxford Street Shelter** is a City run shelter for homeless individuals, intended to provide temporary shelter for adults who do not have any other housing available to them. The City does not discriminate against any person based upon race, color, gender, sexual orientation, age, national origin, disability or religion.

The City does, however, reserve the right to make reasonable rules governing the behavior of individuals while residing at or in City run shelters. In addition, the City reserves the right to refuse admission to the shelter to any individual whose presence in the shelter is determined by the City to pose a danger to other individuals residing in the shelter or the neighborhood. Such a determination will be made only upon verified information obtained from a reliable source, and will be applied only in the most serious circumstances.

The following individuals are prohibited from residing in City operated shelters:

- Individuals who have been restricted from shelters due to violation of shelter rules including but not limited to criminal acts, physical damage, violence or verbal abuse towards other consumers, staff, or neighborhood.

To ensure the safety of residents, staff and neighborhood - the City has established the following rules:

- No alcohol or illegal substances
- No pets of any kind are allowed
- No weapons are permitted in any shelter facility
- No violence, harassment or threats to other consumers, staff or neighbors or emergency responders (police, fire, medcu, etc.)
- No damage or vandalism to shelter facilities or property or neighborhood
- Smoking is not permitted in shelter facilities at any time
- No one will be allowed to enter the premises unless directly involved in the program

In addition to the above, each of the City operated shelters may have additional rules and procedures. It is expected that individuals will adhere to all shelter policies at all times.

Exhibit 6: Neighborhood Engagement Strategy

OXFORD STREET SHELTER

Neighborhood Engagement Strategy

Staff of the **Oxford Street Shelter** are committed to maintaining a positive relationship with our surrounding neighbors.

Staff engagement to ensure that our program is maintaining a positive influence in the community:

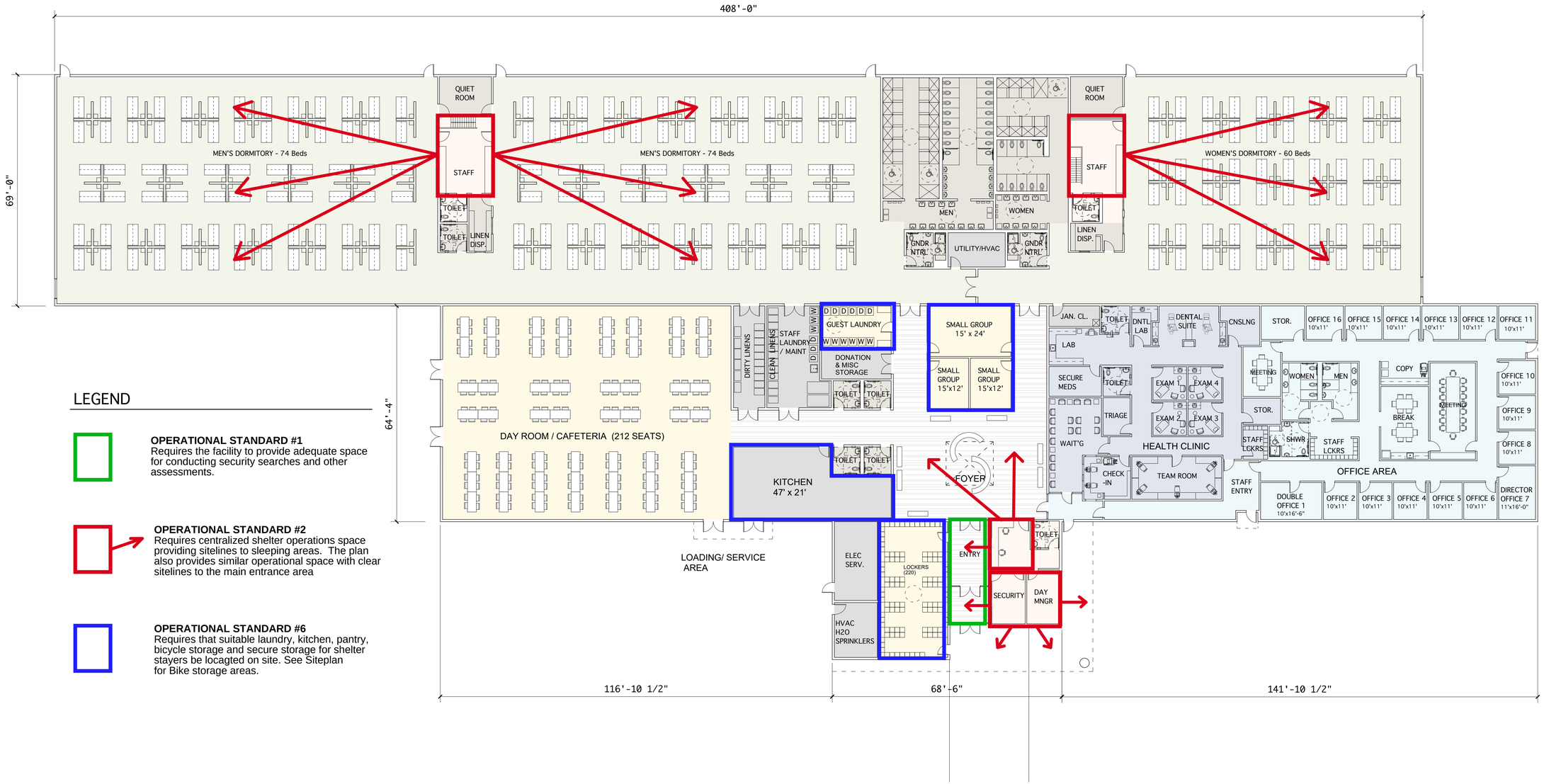
Staff maintain perimeter checks throughout the neighborhood on all of our 24 hour shifts. Staff have built and maintained good relationships with both clients and our neighbors and can assist in neighborhood issues as they arise.

The shelter runs a 24 hour hotline for neighbors to call in any issues they may see. This would be for issues that do not rise to the level of police calls, such as moving shelter guests along from neighbor's front steps, etc. and can decrease police calls for service.

The shelter operates an outdoor storage facility to allow guests to have a place to leave their belongings while going on housing showings, job interviews, etc. This also has decreased the amount of guest belongings that were stored amongst the neighborhood.

The shelter operates an outdoor bathroom facility, increasing the amount of facilities accessible to those we serve.

A representative of the shelter regularly attends the neighborhood association meetings.



LEGEND

OPERATIONAL STANDARD #1
Requires the facility to provide adequate space for conducting security searches and other assessments.

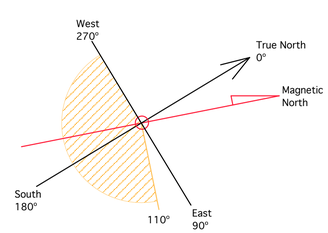
OPERATIONAL STANDARD #2
Requires centralized shelter operations space providing sitelines to sleeping areas. The plan also provides similar operational space with clear sitelines to the main entrance area

OPERATIONAL STANDARD #6
Requires that suitable laundry, kitchen, pantry, bicycle storage and secure storage for shelter stayers be locagted on site. See Siteplan for Bike storage areas.

OPERATIONAL STANDARDS KEY PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



WSA
Winton Scott Architects

5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

Civil Engineering:
GORRILL PALMER

707 Sable Oaks Dr. #30
South Portland, ME 04106
T. 207.772.2515

Landscape Architecture:
ACETO LANDSCAPE ARCHITECTS

565 Congress Street
Portland, ME 04101
T. 207.221.3390

Structural Engineering:
STRUCTURAL INTEGRITY CONSULTING ENGINEERS

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614

Sustainability Consultant:
THORNTON TOMASETTI

14 York Street, Suite 201
Portland, ME 04101
T. 207.245.6061

CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street, Portland

BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

OPERATIONAL STANDARDS KEY PLAN

A1.2

JUNE 14, 2021

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST
Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW **

At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.

GENERAL APPLICATION DOCUMENTS		
(Yes)	NA	**Project Description** ● Cover letter with detailed project description
(Yes)	NA	**Completed Checklist** (this document)
(Yes)	NA	**Evidence of Right, Title, and Interest** ● Deeds, leases, or purchase and sales agreements
(Yes)	NA	**Evidence of State or Federal Approvals** ● Permits or letters of non-jurisdiction, if applicable
(Yes)	NA	**Zoning Assessment** (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
(Yes)	NA	**Site Plan Standards Assessment** (see Section 14.6 of the land use code) ● Summary of project compliance with site plan standards of the land use code
(Yes)	NA	**Summary of Existing and/or Proposed Easements or Covenants, applicable.** ● Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
Yes	NA	**Waiver Requests** (see Waiver Table) ● Written request for waiver describing request and compliance with applicable waiver standards
(Yes)	NA	**Financial Capability** ● Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
(Yes)	NA	**Technical Capability** ● Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION	
(Yes) NA	**Impact on Surrounding Street Systems (14-14.6.1(A))** ● Describe incremental volume of traffic impacts and mitigation measures. If needed
(Yes) NA	**Access and Circulation (14-14.6.1(B))** Identify and describe the following: ● Site access and internal circulation, including ADA access ● Drive-up features, if applicable ● Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable ● Sidewalks and condition along street frontages and internal walkways ● Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
(Yes) NA	**Public Transit (14-14.6.1(C)), if applicable** Identify and describe the following: ● Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
(Yes) NA	**Off-Street Parking (14-14.6.1(D)), if applicable** Identify and describe the following: ● Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code ● Curb cut separation and parking layout (Technical Manual, Section 1) ● Construction details for bicycle racks ● Management plan for snow storage and removal
Yes (NA)	**Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable** ● Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
(Yes)	NA	**Preservation of Significant Natural Features (14-14.6.2(A)), if applicable** Identify and describe the following: ● High and moderate value waterfowl and wading habitat ● Aquifers (for Casco Bay Islands) ● Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) ● Proposed preservation areas and protection measures ● Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
(Yes)	NA	**Landscape Preservation (14-14.6.2(B))** Identify and describe the following: ● Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) ● Measures to protect existing vegetation during construction
(Yes)	NA	**Site Landscaping and Buffers (14-14.6.2(C))** Identify and describe the following: ● Overall landscaping approach and consistency with standards ● The use of screening and buffering of service areas and between non-residential and residential uses ● Existing Heritage or Feature Trees on site and measures to preserve ● Compliance with street tree requirements
(Yes)	NA	**Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D))** Identify and describe the following: ● Erosion and sedimentation control plan and measures ● Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable ● Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY	
(Yes) NA	**Consistency with City Master Plans (14-14.6.3(A))** ● Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
(Yes) NA	**Public Safety and Fire Prevention (14-14.6.3(B))** Identify and describe the following: ● Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) ● Emergency vehicle access ● Consistency with public safety standards (Technical Manual, Section 3)
(Yes) NA	**Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9)** Identify and describe the following: ● Electrical services, including providing underground services ● Existing and proposed connections for public utilities and required public utility upgrades ● Sewer line connections
SITE DESIGN	
(Yes) NA	**Massing, Ventilations and Wind Impact (14-14.6.4(A))** Identify and describe the following: ● Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable ● Bulk, location, or height impacts on adjoining structures
(Yes) NA	**Shadows (14-14.6.4(B)), if applicable** ● Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
(Yes) NA	**Snow and Ice Loading (14-14.6.4(C))** ● Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
(Yes) NA	**View Corridors (14-14.6.4(D)), if applicable** ● Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
(Yes) NA	**Historic Resources (14-14.6.4(E)), if applicable** Identify and describe the following: ● The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district ● Compliance with standards for preservation and documentation of archaeological resources

(Yes) NA	Exterior Lighting (14-14.6.4(F)) ● Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
(Yes) NA	Noise and Vibration (14-14.6.4(G)) ● Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
(Yes) NA	Signage and Wayfinding (14-14.6.4(H)), if applicable ● Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs ● Provide drawings of all commercial and directional signage on site
(Yes) NA	Zone-Related Design Standards (14-14.6.4(I)) ● Address any applicable design review standards by zone, including compliance with Design Manual

CITY OF PORTLAND
Planning & Urban Development Department

CONDITIONAL USE – PLANNING BOARD REVIEW
SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

Conditional uses are listed in the land use code for each zone. The applicant must address the general standards as well as any use- or zone-based conditional use standards contained in Article 6.5 of the land use code in the written application.

GENERAL APPLICATION DOCUMENTS		
(Yes)	N/A	**Project Description** • Cover letter with detailed project description
(Yes)	N/A	**Completed Checklist – Conditional Use** (this document)
(Yes)	N/A	**Evidence of Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
CONDITIONAL USE STANDARDS AND CRITERIA		
(Yes)	N/A	**Traffic** • Demonstrate that the volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the zone.
(Yes)	N/A	**Environmental Impacts** • Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
(Yes)	N/A	**Design and Operation** • Demonstrate that the design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
(Yes)	N/A	**Use- and Zone-Specific Criteria** • Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

RIGHT, TITLE & INTEREST

As outlined in City Council Order 281 – 20/21 the Portland City Council has authorized DC Predevelopment LLC to pursue conceptual site, building design, and the handling of a public engagement process. The following is an excerpt of the June 21, 2021, Council packet confirming the vote taken at the June 7, 2021 Council meeting.

"

Order 281-20/21 Approving and Authorizing First Letter Agreement with Developers Collaborative for the Homeless Service Center Project on Riverside Street - Sponsored by Councilor Spencer Thibodeau, Chair, Housing & Economic Development Committee

Motion was made by Councilor Thibodeau and seconded by Councilor Ray for passage. Passage 8-0 (Dion out).

"

The Record Owner of the property is the City of Portland by deed dated May 18, 2010 and recorded at the Cumberland County Registry of Deeds in Book 27825, page 68. A copy of the deed accompanies this section.

QUITCLAIM DEED WITH COVENANT

KNOW ALL MEN BY THESE PRESENTS, that **DOWNTOWN PORTLAND CORPORATION**, a Maine non-profit corporation with an address at Portland City Hall, 389 Congress Street, Portland, Maine 04101 (together with its successors and assigns, "Grantor"), for consideration paid, grants to **THE CITY OF PORTLAND**, a municipal corporation with an address of 389 Congress Street, Portland, Maine 04101 ("Grantee"), with QUITCLAIM COVENANT, a certain parcel of land, together with any improvements thereon, containing 40.9 acres, more or less, located on Riverside Street, Portland, Cumberland County, State of Maine, subject to all matters of record, including, but not limited to, that certain conservation easement granted to Portland Trails contemporaneously herewith, and being more particularly described in a Conservation Easement Plan recorded in the Cumberland County Registry of Deeds in Plan Book 210, Page 129, incorporated herein by reference.

IN WITNESS WHEREOF, Downtown Portland Corporation has caused this instrument to be executed in its name by Gregory Mitchell, its Assistant Secretary, thereunto duly authorized, this 18 day of May, 2010

WITNESS:

DOWNTOWN PORTLAND CORPORATION

By: Gregory Mitchell
Its: Assistant Secretary

State of Maine
Cumberland, ss.

May 18, 2010

Personally appeared the above named Gregory Mitchell, Assistant Secretary of the Downtown Portland Corporation and acknowledged the foregoing to be his free act and deed, in said capacity and the free act and deed of the Downtown Portland Corporation.

Before me,

#7990

~~Notary Public~~/Attorney-at-Law

Ann M. Freeman
Print or Type Name

Received
Recorded Register of Deeds
Jun 08,2010 08:59:38A
Cumberland County
Pamela E. Lovley

O:\OFFICE\ANN\DPC\636 riverside xfer from dpc to city.doc

ZONING ANALYSIS

See attached Zoning Analysis Table and project site plans for additional information.

ZONING ANALYSIS Relevant Zone(s) IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

NOT APPLICABLE

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size		
Minimum Lot Area per Dwelling		
Maximum # Units per Building		
Maximum Building Length		
Maximum Accessory Building Length		
Minimum Setbacks		
Minimum Building Separation		
Minimum Open Space		

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height			
Setback Reduction			
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

WAIVER REQUESTS

The Applicant is seeking the following waivers.

Standard to be Waived: Cite Ordinance or Technical Manual Standard	**Cite Standard Language:** Cite specific language of applicable Ordinance or Technical Manual Standard	**Waiver Being Sought:** Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20'.	**Justification for Waiver:** Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual Section 5.III – Chapter 500 Flooding standard	*MeDEP Chapter 500 provisions related to Stormwater management*	The applicant is seeking a waiver of the flooding standard, whereby stormwater water quantity control is not required.	The site discharges stormwater runoff to the low end of the Presumpscot River which is considered a major river segment therefore quantity control is not required. Water quality treatment will continue to be provided by means of various BMP's including undisturbed buffers within the adjacent City owned Conservation Land.
Section 14.6.1.E Transportation Standards requiring a Transportation Demand Management Plan (TDM)	*All Commercial, Institutional, or mixed use development of 50,000 SF or more total floor area shall design and implement a TDM plan*	The applicant seeks a waiver of the TDM as the development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time	The development is specifically designed for the Homeless Community who are not expected to be using private vehicles as a primary means of access to the site. The site will contain fewer than 100 employees at any one time.

FINANCIAL CAPACITY

The Applicant has the means at its disposal for financing the proposed Homeless Services Center project. A letter from Gorham Savings Bank is attached to this section as evidence of the applicant's financial capacity to undertake the development.

A breakdown of the preliminary project cost includes the following:

Construction and Site Work:	$17,380,000
Additional Furnishings:	$200,000
Soft Costs:	$1,646,335
Total	**$19,226,335**

These values are considered preliminary and approximate and are subject to change as building design and project layout is refined.

Gorham
SAVINGS BANK
Banking is believing℠

June 18, 2021

City of Portland
389 Congress Street
Portland, ME 04101

RE: Homeless Service Center at 654 Riverside St, Portland, Maine

To Whom It May Concern:

We have been working with Developers Collaborative as well as Drew Sigfridson and Kevin Bunker on their proposal to construct a homeless service center at 654 Riverside St, Portland, Maine. Developers Collaborative is an established and valued customer of the Bank and has the financial capacity to complete this project. We are excited about their plans for 654 Riverside Street, Portland, Maine, and look forward to working with them in further support of the project.

Please feel free to contact me with any questions.

Sincerely,

Matthew W. Early
Senior Vice President

MWE/JRS

TECHNICAL CAPABILITY

The applicant has retained a highly qualified team of professionals to undertake planning, permitting and design tasks on this project. Services will be provided by the following companies and their respective team leaders:

Civil Engineer	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 707 Sable Oaks Drive South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
Architect	Steve Weatherhead, RA Winton Scott Architects 5 Milk Street, Suite #4 Portland, ME 04101 sweatherhead@wintonscott.com
Surveyor	Sebago Technics Charlie Marchese 75 John Roberts Road, Suite 4A South Portland, ME 04106 cmarchese@sebagotechnics.com
Geotechnical	SW Cole Engineering Tim Boyce PE 286 Portland Road Gray, ME 04039 tboyce@swcole.com
Landscape Architecture	Nick Aceto, PLA ASLA Aceto Landscape Architects PO Box 3787 Portland, ME 04104 (207) 221-3390 na@acetola.com
Construction Management	Cianbro Bruce Cummings and Tom Figura bcumming@cianbro.com/tfigura@cianbro.com

The team of consultants retained by developer has expertise and experience in the design of similar commercial projects. Resumes of key personnel for development team can be provided upon request.

The Applicant also has significant experience in the design, permitting, development and management of large institutional projects as evidenced in the team's proposal to the City.[1]

[1] See Response to Request for Proposal RFP #21041 dated April 27, 2021

TRANSPORTATION

The following statements are provided in accordance with the Section 14.6 Site Plan Review Standards of the ordinance.

TRANSPORTATION

14.6.1 Transportation Standards

Impact on Surrounding Street Systems 14.6.1(A)

- *Describe incremental volume of traffic impacts and mitigation measures. If needed*

The development will fit in with the existing street system as it will use a new driveway off Riverside Street. Riverside Street currently has a travel lane in each direction and a center two-way left turn lane for turning traffic into the site. The posted speed on Riverside Street is 35 mph. There are 8' wide paved shoulders on each side of the road. The available sight distance in each direction exceeds 500 LF which complies with the Technical Standards value of 305 feet for the 35 mph posted speed.

The proposed shelter will be operated 24/7 with staffing at all times. Staff on the site at any one time will be less than 50 persons thus the trip generation attributable to the development will be less than 100 trips in the peak hour, thus remaining below the threshold requiring a MaineDOT Traffic Movement Permit.

The next closest intersections to the development include the signalized intersection of Forest Avenue (Route 302) and Riverside Street to the north and the signalized intersection of Riverside Street and Warren Avenue to the south. The proposed shelter is not expected to impact the operations of either of these signalized intersections.

Access and Circulation 14.6.1(B)

- *Site access and internal circulation, including ADA access*
- *Drive-up features, if applicable*
- *Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable*
- *Sidewalks and condition along street frontages and internal walkways*
- *Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)*

(i) The development provides primary two-way access via Riverside Street. Internal circulation has been reviewed and designed to accommodate the typical use of passenger and emergency vehicles by means of the 24' wide main site driveway and a minimum 20' wide perimeter loop drive around the building. The applicant is proposing ADA parking at the front of the building for access.

(ii) There are no drive-up features proposed.

(iii) Access and egress have been designed to avoid conflict with existing turning movements and traffic flows. Please see AutoTURN diagrams included in Section 10.

(iv) Public sidewalks exist along the east and west sides of Riverside Street except for a short length on the west side of Riverside Street north of the proposed driveway entrance. The sidewalk on the east side of Riverside Street extends to Forest Avenue and ultimately to the existing transit stops located approximately 1600 LF from the site. The development will include a 12' wide paved pedestrian route extending from the Street into the site and to the building's main entrance. A Plaza space will be provided along this route for the use and benefit of the Shelter guests.

Public Transit Access 14.6.1(C), if applicable

- *Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter*

The site is served by nearby transit service on Forest Avenue. The METRO Route 2 includes outbound and inbound transit from the Portland Downtown to Prides Corner. There are several stops located in the vicinity of the Hannaford Store and Riverton. Similarly, the METRO Route 3 services connects Hannaford-Riverton-Westbrook- South Portland along East Bridge Street, Spring Street and the Maine Mall. The METRO Route 4 includes service along Brighton Avenue, south of the proposed shelter site. Exact details as to any shelter improvements at any of the existing transit stops along Forest Avenue have yet to be formulated with METRO but are anticipated to be discussed during upcoming meetings.

Parking 14.6.1(D)

- *Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code*
- *Curb cut separation and parking layout (Technical Manual, Section 1)*
- *Construction details for bicycle racks*
- *Management plan for snow storage and removal*

1. Vehicular Parking

The proposed project will include 43 parking spaces. This exceeds the value of 28-30 spaces required under the terms of the RFP #21041 that the City had issued. This parking capacity is expected to provide for both the anticipated staff load as well as guests/visitors to the site.

2. Bicycle Parking

The site plan currently identifies 10 bike spaces to satisfy the 8 bikes required (2 spaces/10 vehicles). Please see the Landscape plans by ALA for further information on the outside bike parking locations.

3. Snow Storage.

a. Snow storage management will employ two strategies:

1. On-site snow storage around the perimeter of the site as shown on the site plans; and
2. Snow removal and off-site storage.

4. Electric Vehicle (EV) Charging

The Applicant will be providing conduit for EV Charging stations for 20% of the parking spaces or 8 spaces.

Traffic Demand Management (TDM) 14.6.1(E), if applicable

- *Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements*

A TDM plan is not required for this project based on the use as an emergency/homeless shelter where the predominate means of access by guests will be foot traffic. .

ENVIRONMENTAL

The following statements are provided in accordance with the Section 14 of the Ordinance.

14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features 14-14.6.2(A), if applicable

- *Populations of trees and plants that are endangered or threatened*
- *Habitat for species*
- *High and moderate value waterfowl and wading habitat*
- *Aquifers on Casco Bay Islands*
- *Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains)*
- *Proposed preservation areas and protection measures*
- *Documentation from environmental compliance consultants and determinations from applicable state and federal agencies*

1. Preservation of Significant Natural Features:

a. The development site does not contain any significant natural features including wetlands of special significance, vernal pools or other protected resources. A forested wetland was identified within the conservation area located outside of the site boundaries. The site is nearly all covered with previously filled land that has reverted to grass and shrub vegetation naturally. No further evidence will be provided for the current application, unless requested.

B. Landscape Preservation 14-14.6.2(B)

- *Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4)*
- *Measures to protect existing vegetation during construction*

1. The site's existing tree coverage is sparse due to the nature of the historical placement of fill across the site. There are no specific trees earmarked for preservation as a result of these site conditions.
2. The majority of the development footprint lies within previously filled land.

C. Site Landscaping and Buffers 14-14.6.2(C)

- *Overall landscape approach and consistency with standards*
- *The use of screening and buffering of service areas and between non-residential and residential uses*
- *Existing heritage or Feature Trees on site and measures to preserve*
- *Compliance with Street Tree requirements*

1. Landscaping

The proposed landscape plan meets (and exceeds) the Site Plan review standards in Section C of the Technical Manual. The applicant is proposing a mix of shade and flowering trees—as well as shrubs, ornamental grasses, and perennials—along development frontage and at the site's interior

that will add aesthetic interest, ecological value, and scale to the proposed development. All proposed trees are listed in the City of Portland Recommended Tree List. Due to the site's current use as filled land, there are no existing trees or vegetation that need preservation.

2. *Buffers:*

There are no service or loading areas observable from nearby sidewalks or residential properties and trash and recycling will be contained within a solid screened enclosure. Various new tree plantings consisting of both evergreen and deciduous will be planted along the shared boundaries with the Lucas Tree Experts site and the Suburban Propane site, both located along the southerly sideline shared with those uses.

(a) The City is the owner of the conservation land along the north and west sides of the property. The existing woods within these areas will remain as a permanent buffer to at least ½ the property perimeter.

(b) Not applicable

(c) Evergreen tree plantings will be placed along the shared boundary with the Lucas Tree experts.

3. *Parking and Vehicle Display Lot Landscaping*

The applicant is proposing a mix of shade trees, ornamental trees, and shrubs in the plaza spaces and around the site perimeter. The parking lot will be screened from view from Riverside Street and surrounding property primarily due to distance and grade change from the street.

4. *Street Trees*

The proposed development has less than 100 feet of street frontage. Trees are proposed along the entrance drive with several located just off the Riverside Street right of way.

D. Water Quality, Stormwater Management and Erosion Control 14-14.6.2(D)

1. The proposed development results in 150,041± SF (3.44 ac) of proposed impervious area. This includes 51,690 SF of building roof and 98,351 SF of hard surfaces associated with pavement, plaza, and sidewalks. The stormwater management design will include measures to comply with the water quality treatment standards. A waiver is requested of the stormwater flooding standards since the site is directly tributary to the Presumpscot River, which is considered a major river segment. The development site is located at the lower end of the overall river watershed and thus the need for flood controls are not necessary as the hydrologic peak flow condition for the site are substantially sooner than the overall watershed peak. The approach to not control the site's increased runoff discharge is commonly referred to as "beat the peak" approach. Since the site's runoff will only cross over City retained land before entering the river, there are no issues for downstream flooding. Similar waivers of the flooding standards have been granted for other properties along Riverside Street, including the Second Tee Business Park for example and the Suburban Propane site.

For water quality treatment one primary measure for treatment will be the use of level spreader outlets to disperse runoff over a wide area to allow sheet flow over the adjacent conservation areas. These measures are outlined in Chapter 5 of the MaineDEP Stormwater Management BMP Manual. In addition to the use of the vegetated buffers, the site design may employ additional BMPs including rain gardens and other filtration BMP's into the overall management approach.

2. The proposed project will comply with the City's stormwater management standards of the Technical Manual. The project will employ various Best Management Practices including undisturbed vegetated buffers, rain gardens and/or filtration BMP's.

3. The development will include some amount of runoff infiltration into the underlying ground as water passes over the undisturbed vegetated buffers. This is due to the absorption capacity of the onsite soils and the depth to groundwater. This is a benefit/advantage of the site and the ability to provide some amount of infiltration practices as part of the Stormwater Management regime.

STORMWATER MANAGEMENT REPORT
(GENERAL STANDARDS)

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, ME

PREPARED FOR

DC PREDEVELOPMENT LLC/CITY OF PORTLAND

PREPARED BY

GORRILL PALMER CONSULTING ENGINEERS
707 SABLE OAKS DRIVE
SOUTH PORTLAND, MAINE 04106
(207) 772-2515

JUNE 2021

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STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

The City of Portland has selected DC Predevelopment LLC to assist with the preliminary design and permitting of a proposed City Homeless service center on an undeveloped 7.01-acre parcel off Riverside Street.

The project includes the following breakdown of activities and areas:

Total Area of Site: Lot 4-2 = 7.01 acres (305,505 sf)
Total Site Area to be Disturbed: Approx. 5.2 acres
Total Existing Impervious Area: 17,021 SF (includes concrete pad and gravel road)
Total Impervious Area After Construction: 150,041 SF (3.44 acres)

Prop Building: 51,690 SF
Prop Pavement: 61,734 Sf
Prop Sidewalk: 8,538 Sf
Prop. Plaza Area: 9,119 Sf
Prop. Pavement Flex Area: 11,067 SF
Prop. Raised Gardens/Social Spaces: 5,033 SF
Prop. Pavilion/Outdoor Seating: 2,860 SF

This section of the Major Site Plan Application presents the Stormwater Management Plan designed for the project activities. The stormwater management design presented herein will show that the site will meet the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations.

The site discharges to the Presumpscot River which is a major river segment that ultimately flows into Casco Bay approximately 5 miles downstream. Due to these lower watershed conditions, **the applicant is requesting a waiver of the flooding standards as has been previously granted for projects in this area of Portland**. As discussed below the site's current conditions are characterized by filled land that has been substantially naturally revegetated and the area is generally surrounded on the downhill side by permanent conservation land. The proposed development will be greater than 300' from any nearby tributary or the river and the downhill areas from the site are heavily forested with mature vegetation including trees and significant ground cover. The forest floor consists of thick ground coverage including many fallen trees, limbs and duff cover. Slopes associated with the manmade fill limits vary from 6 to 15% down to a flatter zone along the river.

The proposed stormwater quality treatment approach primarily utilizes the 'Vegetated Buffers' approach listed in the Maine Best Management Practices (BMPs) to meet the stormwater quality standards required under the general standards as outlined in the adopted MeDEP Chapter 500 Stormwater Management Technical Manual. The site's surrounding vegetated buffers are intended to provide water quality treatment for close to 100 percent of the proposed development area. We believe the site's conditions including the existing conservation land that lies between the site and the river is an ideal opportunity to utilize level spreaders and

dispersed runoff flow along the site's perimeters so that these waters will sheet thru the heavily forested buffers where soil and vegetative absorption can occur prior to entry into the river.

2.0 EXISTING SITE CONDITIONS

The existing 7.01±-acre site is identified by the City of Portland Assessor's Office on Tax Map 322/Lot A-10 and Map 323/Lot A-3, A-5 and is located in the Industrial Moderate (IM) and Industrial High (IH) Zoning Districts with the zoning boundary generally bisecting the lot from east to west.

Excerpt of Zoning Map

The lot is identified as proposed Lot 4-2 of the Second Amended Subdivision and is owned by the City per the deed recorded at the CCRD in Book 27825; Page 68.

The lot is mostly undeveloped with the exception of a City owned communications tower that supports service for the City's Emergency Services departments. The remaining land area is characterized by previously filled land that has mostly covered with grass and emergent tree vegetation. The site has 95.10 feet of street frontage along Riverside Street. Land uses in the vicinity of the site include the following:

- Lucas Tree Experts located at 636 Riverside Street on Lot 3 of the Riverside Subdivision. The owner is Addison Capital LLC.
- Seacoast Scaffold and Equipment is located at 600 Riverside Street on Lot 2 of the Subdivision.
- Schnitzer Recycling is located at 568 Riverside Street on Lot 1 of the Subdivision. The lot owner is H Finkelman Inc.

- Suburban Propane LP is located at 624 Riverside Street on Lot 4-1 of the subdivision.
- Lot 4 is retained land owned by the City and held under conservation easement by Portland Trails[1]. Lot 4 extends to the Presumpscot River, basically located just west of the proposed development site.
- Further north of the site is a single-family residence at 660 Riverside Street.
- A mixed-use building and facility is located at 655 Riverside Street opposite the proposed site entrance.

Sebago Technics has previously completed a topographic survey of the property. The site is relatively flat with the highest points along the Riverside Street frontage, sloping to the west. Site elevations along Riverside Street trend down from east to west from elevation 72' (NGVD 1929) to elevation 60' at the westerly end of the property.

The site's runoff either infiltrates into the ground or drains downslope directly to the Presumpscot River via overland flow. There are no apparent drainage systems on site, although there is a closed storm drainage system within Riverside Street.

[1] See CCRD Book 27677, page 125

Due to the site's relatively deep manmade fill condition nearly all the predevelopment surface consists of uncontrolled fill, that has become primarily a meadow over time.

The site's soil layers are generally characterized as follows:

- Uncontrolled fill from 3' to 25' deep.
- Stable native deposits of glaciomarine clay, glacial outwash sands and glacial till.
- Ledge is greater than 30' below grade.

3.0 PROPOSED PROJECT

The Proposed Homeless Shelter site will be developed in accordance with the City's IM/IH zoning requirements and Site plan standards. This will include measures to collect, convey and provide water quality treatment of the site generated stormwater runoff. The development program includes the following components:

ONSITE

A 51,000 SF single story shelter facility will be constructed and site improvements will include 43 parking spaces, a primary entrance drive off Riverside Street, plaza/commons spaces for shelter guests and visitors, a connecting sidewalk from the street to the shelter entry and a perimeter drive around the building for emergency and maintenance access. The site will benefit from available public utilities in Riverside Street including water, sewer, gas, power and communications.

The site's conditions may warrant ground improvements for foundation support and the placement of onsite soils in berms or otherwise within cover conditions that will comply with the MeDEP VRAP program.

4.0 REFERENCES

- Erosion and Sediment – *Maine Erosion and Sediment Control BMPs", published by the MeDEP in 2003* http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

5.0 MODELING SOFTWARE

Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations when applicable. Since a waiver of the flooding standards is requested, no formal hydrologic analysis using HydroCAD has been performed.

6.0 PRESENTATION OF ANALYSIS

The stormwater analysis has been performed for the project to satisfy the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein.

7.0 ASSUMPTIONS

- That detention will not be required to reduce the peak flow rate or meet the flooding standards. **A waiver of the flooding standards is requested on the basis that similar waivers have been granted in the past for development in the nearby vicinity.**
- That the filled soils and the native soils in the surrounding conservation area will have infiltrative properties that meet the requirements of the Maine DEP Vegetative buffer BMP's proposed. Note: **A waiver is being sought for infiltration testing**.

8.0 STORMWATER MANAGEMENT OBJECTIVES

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010).
- Designing water quality measures including vegetative buffers, level spreaders and raingarden pretreatment to provide long-term removal of non-point contaminants.
- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Implementing processes to avoid toxic pollutants from site maintenance activities, including both organic chemicals and heavy metals, from entering ground and adjacent water bodies.
- Maintenance of the Stormwater Management System and the grounds in accordance with the Stormwater O&M Manual (to be provided as a separate document).

The plan has therefore been designed in accordance with the City of Portland Stormwater Rules.

9.0 STORMWATER MANAGEMENT QUALITY SUMMARY

Approach

To meet the General Standards, our office reviewed the list of options of MeDEP's accepted Best Management Practice (BMP) options to provide water quality treatment including grassed underdrained filter, bio-filter, vegetated buffers, proprietary devices, and infiltration trenches for the site. Following this review and incorporating knowledge of the site and the goals of the project, it was realized that developing a method for providing stormwater quality treatment that utilizes the surrounding undisturbed vegetated forested buffers for dispersing sheet flow and allowing as much runoff infiltration as possible into the underlying soils would be preferable

both functionally and economically. According to the MaineDEP BMPs this is known as a "Vegetated buffer" approach to stormwater quality treatment.

The use of buffers will require careful collection and dispersing of runoff via level spreaders at various locations along the site's downhill perimeter.

The basis of design of treatment method is as follows:

Compliance with BMP Design Criteria:

Size Suitability:

The overall site is 7 acres and developed area will be approximately 5 acres. The proposed buffers consist of heavily forested conservation land downhill of the site. There are several areas of concentrated ravine type conditions that will need to be avoided for the release of water from various level spreaders. There are however also many zones where a level spreader can be positioned to release water into a sheet flow condition thru the buffer zones. The slopes downhill of the site vary from 3% to as steep as 15% which is the upper limits for buffers. Steeper slope conditions will be avoided. The soils in the site are all controlled fills. The native soils further downgradient in the buffer zones consist of clays, tills and sands. The existing buffers appear to have a significant forest duff layer that during the current summer conditions supports a very heavy ground cover in many areas that is challenging to navigate thru. The buffers will not include any streams.

Buffer Design:

The initial examination of site conditions yields a finding that the buffers should be suitable for use to treat dispersed runoff from the development site. Additional information on level spreader design, pretreatment and the specified buffer dimensions will be provided in a supplemental memorandum to this report prior to the first Planning Board Workshop.

Vegetative cover:
The buffers are heavily wooded generally throughout.

Maintenance:

The buffer areas and ancillary collection and conveyance measures will require maintenance to assure erosion and sediment transport is avoided and that systems retain their design function of the capture and release of stormwater runoff from the site.

Pretreatment

Pretreatment in the form of rain gardens, stabilized sumps and similar capture devices will be integrated into the design to aid with the removal of heavier sediments, trash, debris etc. prior to the release of runoff into sheet flow into the buffers.

Separation to Groundwater:

Based on the test pit data included in previous subsurface explorations, the groundwater table throughout the site is six to nine feet below existing grade thus there is ample separation from any underlying groundwater resources

Infiltration Testing:

The applicant is seeking a waiver from the infiltration testing requirement. The applicant has observed the existing site after heavy rain events and not observed ponding. The existing site has an uncontrolled layer, and it is expected that the proposed non-impervious surfaces will not negatively impact any infiltration properties below.

Flooding Standard:

Due to the direct discharge to the Presumpscot River, **a waiver from the flooding standard is being requested**.

10.0 CHAPTER 500 TREATMENT PERCENT COMPLIANCE

The proposed project creates 3.44 acres of impervious surface. The proposed disturbed area will be about 5.2 acres. Level Spreaders dispersing runoff to the downhill undisturbed vegetated buffers will be more than sufficient to meet the standards for roof treatment which are generally tied to thermal treatment when a non-asphalt roof is proposed, as is the case for this building.

The proposed stormwater management plan provides treatment for nearly all the development area as site generated runoff will be collected and dispersed over the ground to the downhill buffers zones. Hence, the strategies proposed herein meets the minimum requirements stated in the General Standards. Again, the absorption of runoff from the building roof will result in thermal cooling before the water enters the Presumpscot River.

11.0 EROSION CONTROL

An Erosion Control Narrative, Plan, and Details have been prepared for the project and are part of the plan set. The measures to be used include perimeter sediment barrier placement, careful placement of stockpiles and use of soils cover systems.

12.0 OPERATIONS AND MAINTENANCE

An Operations & Maintenance Manual will be prepared upon the acceptance of the proposed vegetated buffer system.

13.0 PERMIT REQUIREMENTS

The City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

The following statements are provided in accordance with the submission and Section 14.6.3 of the ordinance.

Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans 14.6.3.A

1. The proposed development is consistent with the previously approved Amended Subdivision Plan that contemplated development on the approximately 7 acre property. The site is ideally situated to benefit from public infrastructure for utilities, vehicular and pedestrian access as well as nearby public transit on Forest Avenue.

2. The Applicant has coordinated with utility representatives for the maintenance of easements related to utility infrastructure crossing the site. These easements include drainage benefitting the Suburban Propane Site as well utility service to the City owned communications tower. The City will be engaging their survey consultant to assist with any updates/amendments to the overall Riverside Subdivision Plan.

B. Public Safety and Fire Prevention 14-14.6.3(B)

- *Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3)*
- *Emergency vehicle access*
- *Consistency with public safety standards (Technical Manual, Section 3)*

a. The site has been designed to promote a safe and inviting visitor experience. All pedestrian paths and outside gathering spaces have been positioned to maintain visibility and consider safety for the users.

b. The primary site access will be off Riverside Street. The entrance drive will connect directly to the front building entrance whereby allowing the building staff reasonably clear vision to vehicles coming and going into the property.

c. The site plan includes emergency vehicle around the site perimeter.

C. Availability and Adequacy of Public Utilities 14.6.3(C) (Technical Manual, Sections 2 & 9 9)

- *Electrical services, including providing underground services*
- *Identify existing and proposed connections for public utilities and required public utility upgrades*
- *Sewer line connections are required, if there is a main within 200 feet*

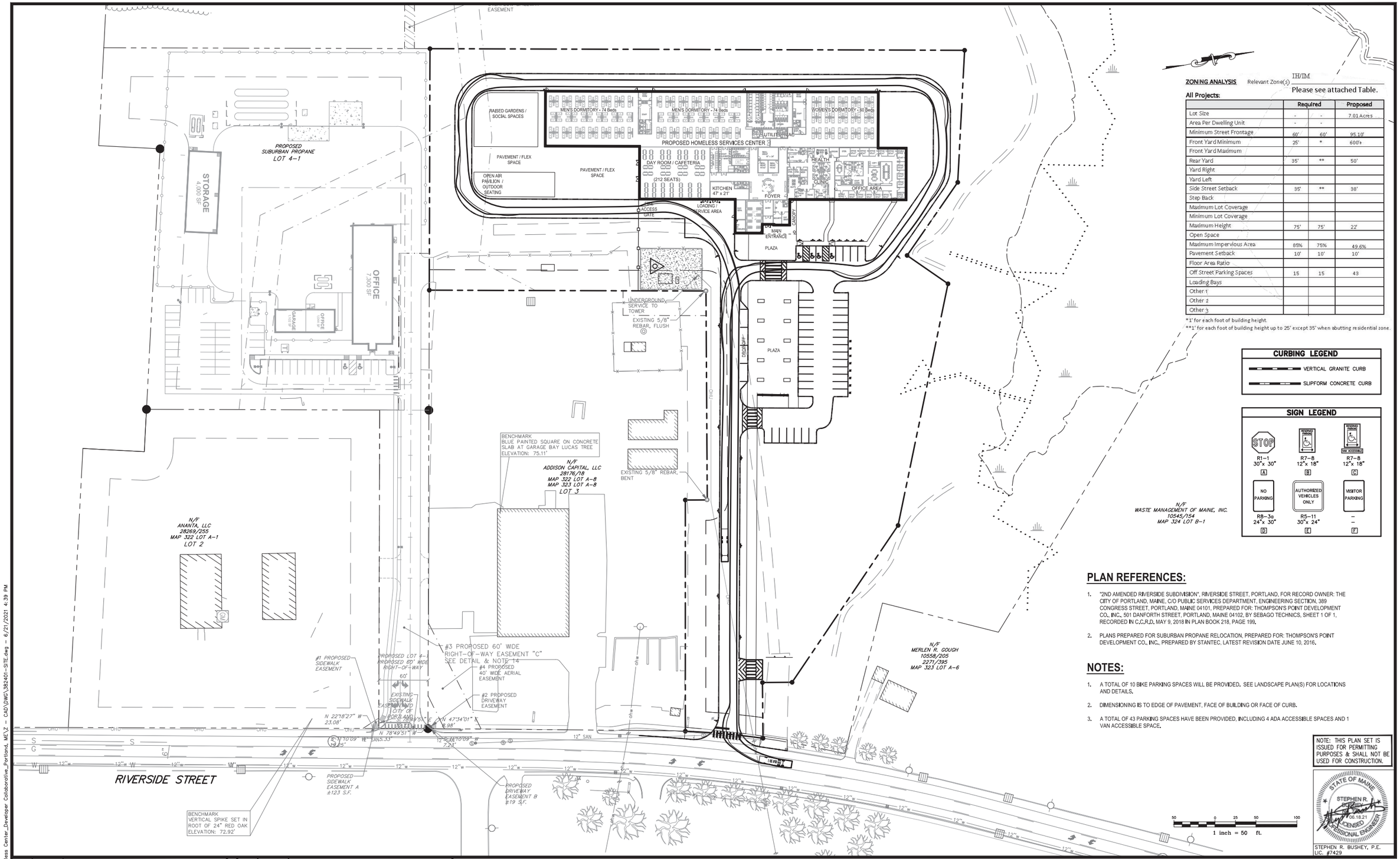
a. The Applicant is coordinating with the onsite utility providers and will forward capacity to serve letters upon receipt. Existing utility systems in Riverside Street include:

- 12" water main
- 12" gravity sewer line
- Overhead three phase power
- Overhead communications lines
- High pressure gas main

b. All electrical and communications feeds are underground on the property.

c. A new sewer connection to the existing 8" gravity main in the Suburban Propane right of way is proposed. The wastewater collection system design has been prepared to comply with the City's technical standards. The building will include a kitchen facility; however, all meals will be prepared at an offsite location and no substantial cooking activity will occur on site. A grease tank is not required as a result. The development team will discuss the need for any solids handling equipment at the site and if needed employ the use of such equipment into the gravity sewer design.

d. The site will include a solid waste and recycling enclosure area for the placement of trash collection cannisters. A contracted waste hauler will be responsible for the removal of all waste on a routine basis.



ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

STOP R1–1 30"x 30" A	RESERVED PARKING R7–8 12"x 18" B	RESERVED PARKING VAN ACCESSIBLE R7–8 12"x 18" C
NO PARKING R8–3a 24"x 30" D	AUTHORIZED VEHICLES ONLY R5–11 30"x 24" E	VISITOR PARKING – – F

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E. LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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CONSTRUCTION MANAGEMENT PLAN

A Draft Construction Management Plan has been prepared and is included with this section.

Portland Shelter Construction Logistics Plan

Secondary Gate

LOT 4-2
AREA: 7.01 ACRES

PROPOSED HOMELESS SERVICES CENTER

Porta Potty & Dumpster Location

Subcontractor Parking Area & Lay Down Area

Construction Boundary Fence

Construction Office Trailers

Cianbro & Visitor Parking

Main Gate

Construction Access

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

R1-1 30"x 30" [A]	R7-8 12"x 18" [B]	R7-8 12"x 18" [C]
NO PARKING R8-3a 24"x 30" [D]	AUTHORIZED VEHICLES ONLY R5-11 30"x 24" [E]	VISITOR PARKING – – [F]

PLAN REFERENCES:

1.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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Drawing Name: CONSTRUCTION MANAGEMENT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Figure A

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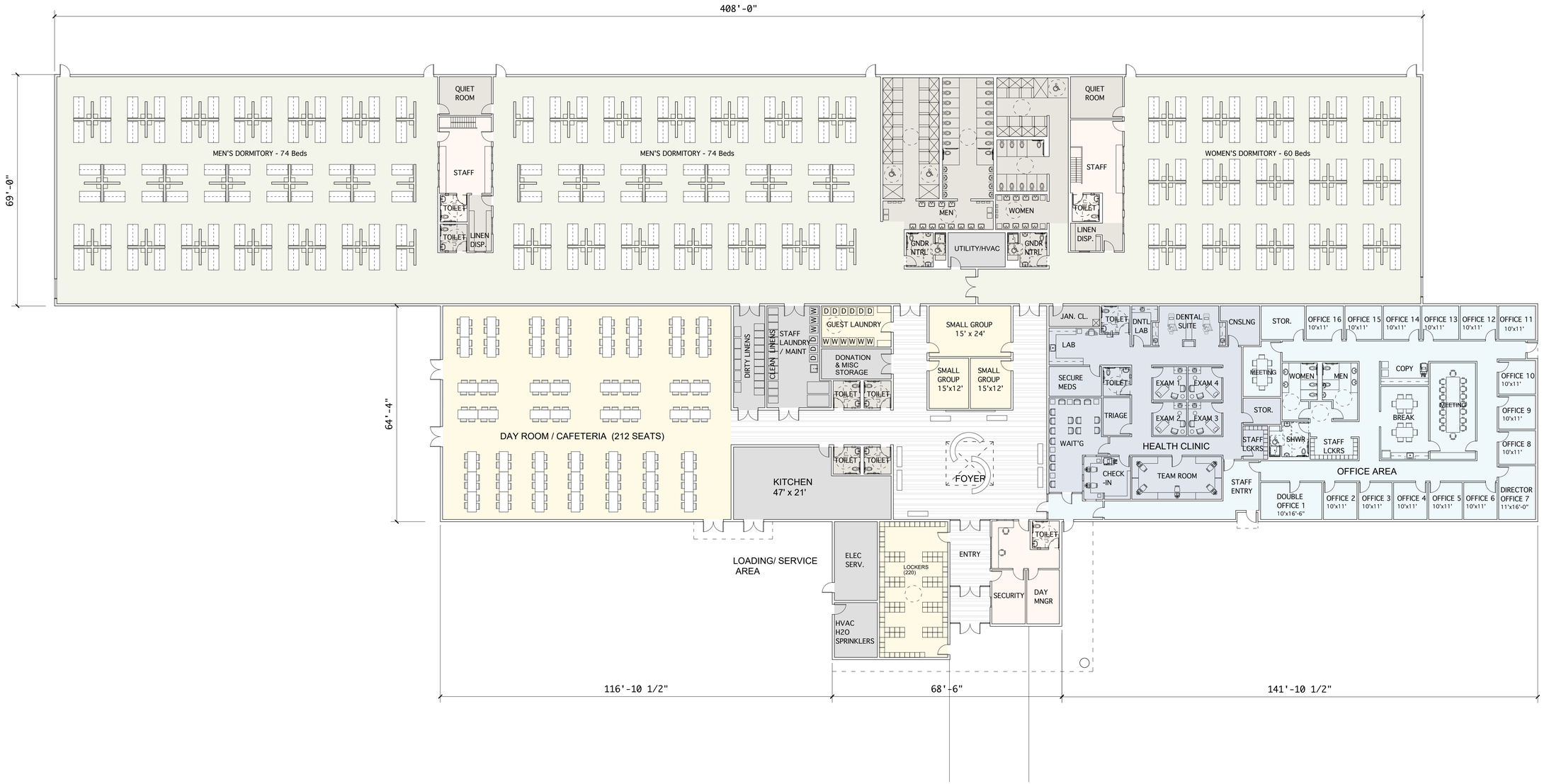
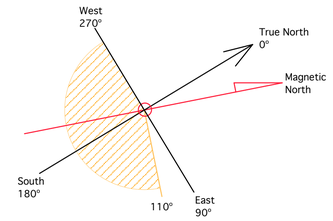


FIRST FLOOR CONCEPT PLAN

SCALE: 1/16" = 1'-0"

51,690 S.F.



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CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street, Portland

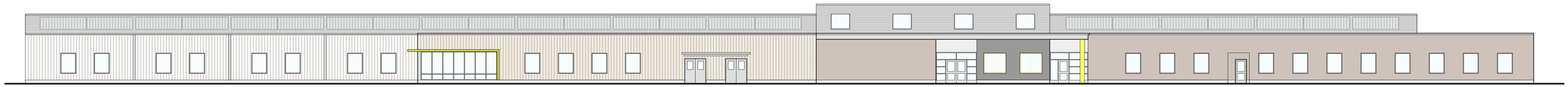
BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

FIRST FLOOR PLAN

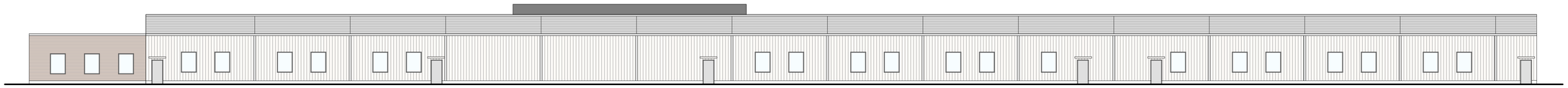
A1.1

JUNE 14, 2021



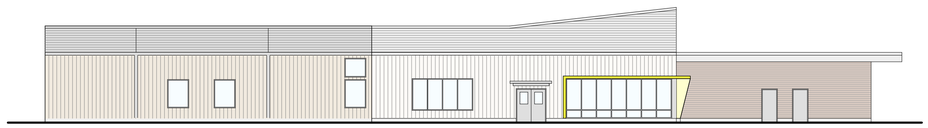
EAST ELEVATION

SCALE: 1/16" = 1'-0"



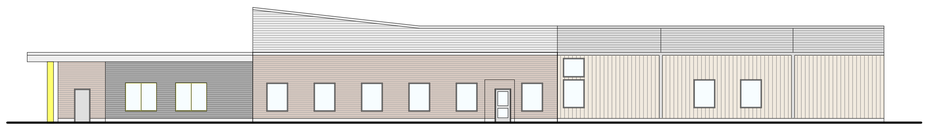
WEST ELEVATION

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION

SCALE: 1/16" = 1'-0"



NORTH ELEVATION

SCALE: 1/16" = 1'-0"

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CITY OF PORTLAND
HOMELESS SERVICES CENTER

654 Riverside Street,
Portland

BUILDING CONCEPT SET

Scale: 1/16" = 1'-0"

BUILDING ELEVATIONS

A2.1

JUNE 14, 2021

TAX MAP-BLOCK-LOT NUMBER:
MAP 322 LOT A-10, MAP 323 LOTS A-3 & A-5

CURRENT LAND OWNER:
CITY OF PORTLAND
PORTLAND, ME. 04101
DEED DATED MAY 18, 2010 / RECORDED AT CCRD IN
BOOK 27825 / PAGE 68

DEVELOPER / CO-APPLICANT:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME. 04101
CONTACT: KEVIN BUNKER
207.772.7673
bunker.kevin@gmail.com

SITE DEVELOPMENT PLANS

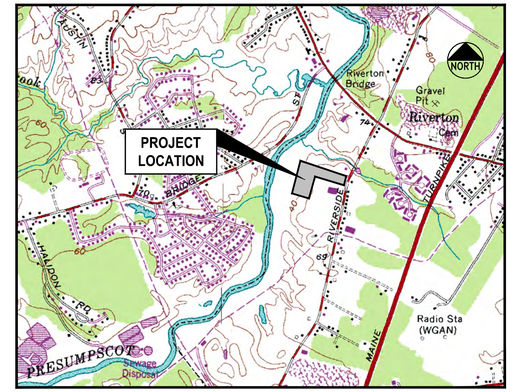
FOR

Homeless Services Center

654 RIVERSIDE STREET, PORTLAND, MAINE

JUNE 2021

PERMIT DOCUMENTS



LOCATION MAP
N.T.S.

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*W-2	POST-DEVELOPMENT WATERSHED MAP

*NOT INCLUDED IN THIS SUBMISSION

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CONTACT: KEITH GRAY / BRAD ROLAND

ELECTRIC:
CENTRAL MAINE POWER
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TIME WARNER CABLE / SPECTRUM
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PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
DIAL 811 (AT LEAST 72 HRS IN ADVANCE)

PERMITS / APPROVALS

TYPE:	GOVERNING BODY:	STATUS/DATE ISSUED:
LOCAL		
MAJOR SITE PLAN APPROVAL:	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8608 CONTACT: KEVIN KRAFT	MAJOR SITE PLAN APPLICATION JUNE 18, 2021
BUILDING PERMIT:	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8900	BY OWNER/ARCHITECT
UTILITY OPENING PERMITS:	CITY OF PORTLAND PUBLIC SERVICES DIVISION 212 CANCO ROAD PORTLAND, ME 04103	BY CONTRACTOR

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

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ENVIRONMENTAL:
Woodard & Curran, Inc.
41 HUTCHINS DRIVE
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CONTACT:

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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Drawing Name: COVER SHEET
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.0

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GENERAL NOTES:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT MANUAL FOR CONSTRUCTION SPECIFICATIONS AND BIDDING PROCEDURES.
2. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCE, PAVING, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS. ENTRANCES IN MOST LOCATIONS REQUIRE STRUCTURAL SLABS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR INFORMATION ON THE STRUCTURAL SLAB ENTRANCES.
4. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSIONS AND THE FINAL SERVICE CONNECTIONS.
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE APPLICANT AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR THE CITY, AT NO ADDITIONAL COST TO THE OWNER.
7. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
8. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE PROJECT SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SHALL APPLY AT NO EXTRA COST TO THE OWNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS THROUGHOUT THE PROJECT AND PROVIDING THE OWNER WITH A SET OF THE FINAL RECORD DRAWINGS WHEN THE PROJECT IS COMPLETE.
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH OUT THE LIFE OF THE PROJECT.

SITE LAYOUT NOTES:

1. ALL HANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS.
2. BITUMINOUS CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.01, 703.07, AND 609.04.
3. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.
4. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.
5. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.
6. STRIPE PARKING AREAS, DRIVES AND ROADWAY AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, CROSSWALKS, HANDICAP SYMBOLS, PAINTED ISLANDS AND FIRE LANES. (ALL MARKINGS EXCEPT MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT.) ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE 'F'. MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT.
7. SEE DETAILS FOR PARKING STALL DIMENSIONS, HANDICAP SYMBOLS, SIGNS AND SIGN POSTS.
8. STOP BARS SHALL BE 12" WIDE.
9. PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES @ 3'-0" O.C. BORDERED BY 4" WIDE LINES.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS.
2. PROVIDE TURF REINFORCEMENT IN AREAS INDICATED ON THE PLANS.
3. AN "AS-BUILT" CERTIFICATION OF THE STORMWATER DRAINAGE SYSTEM BY A REGISTERED ENGINEER IS REQUIRED PRIOR TO THE OWNER ACCEPTING THE BUILDING AND PROPERTY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ANY DEVIATION FROM THE PLANS MAY DELAY THE ACCEPTANCE OF THE PROJECT.
4. A DETAILED O&M MANUAL FOR STORMWATER MANAGEMENT SYSTEMS IS (WILL BE) FILED WITH THE CITY OF PORTLAND DURING THE PERMIT REVIEW PROCESS. A SPECIFIC MANUAL HAS BEEN PREPARED FOR O&M OF THE DRAINAGE SYSTEM.
5. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
6. SEE GRADING, DRAINAGE AND EROSION/SEDIMENT CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
7. ALL DISTURBED AREAS NOT TO BE PAVED, SODDED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
8. COMPACTION REQUIREMENTS:

LOCATION	MINIMUM COMPACTION
SUBBASE AND BASE GRAVEL BELOW PAVED OR CONCRETE AREAS	95%
SUBGRADE FILL BELOW PAVED AREAS	90%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
STRUCTURAL FILL WITHIN PROPOSED BUILDING AREA	95%
SELECT FILL ADJACENT BUILDING FOUNDATIONS, EXTERIOR FOUNDATIONS, AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE	95%

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557.

9. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
10. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND EXIT RAMPS ADJACENT TO THE BUILDING AND ALONG NEW CURBED AREAS. ALL ADA COMPLIANT PARKING SPACES SHALL BE PAVED WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
11. PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH THE FINAL GEOTECHNICAL RECOMMENDATIONS.
12. NATIVE SOILS :
13. FIVE (5.0) FEET OF CLEAN GRANULAR SOIL MEETING THE SELECT FILL GRADATION SPECIFICATIONS SHALL BE PROVIDED BELOW THE ENTRANCE SLABS AND ADJACENT SIDEWALKS. GRADUAL TRANSITION (3 HORIZONTAL TO 1 VERTICAL) OF SELECT FILL THICKNESS SHALL BE PROVIDED FROM THE 5.0 FOOT DEPTH TO THE GRAVEL BASE THICKNESS AT THE SIDEWALKS AND PAVED AREAS AWAY FROM THE BUILDINGS.

UTILITY NOTES:

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE SITE WORK CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. ACTUAL UTILITY INSTALLATION SHALL BE BY THE MEP CONTRACTOR. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE GENERAL CONTRACTOR.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH CONSOLIDATED COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. ALL SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE MAINE STATE PLUMBING CODE AND CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER.
5. COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY. ALL UTILITY WORK SHALL CONFORM TO THE STANDARDS OF THE UTILITY COMPANY AND PROJECT SPECIFICATIONS. IN CASE OF CONFLICT, THE MORE STRINGENT STANDARDS SHALL APPLY.
6. THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY.
7. UNDERGROUND ELECTRICAL, CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO UTILITY COMPANY STANDARDS AND PROJECT SPECIFICATIONS, WHICH EVER IS MORE STRINGENT.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
10. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
12. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
13. THE CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION AND PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.

LANDSCAPE NOTES:

(SUBJECT TO COORDINATION WITH LANDSCAPE DRAWINGS. IN CASE OF CONFLICT, THE LANDSCAPING DRAWINGS SHALL GOVERN.)

1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNERS REPRESENTATIVE BEFORE AND AFTER PLANTING.
2. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSPECTION AND ACCEPTANCE, AND SHALL HAVE AT LEAST 80% HEALTHY GROWTH AT THE END OF THE GUARANTEED PERIOD.
3. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER, AND MULCH.
4. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS USED IN A CURBED ISLAND, THE BARK SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
5. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING AS SHOWN.
6. PARKING AREA PLANTED ISLANDS TO HAVE A MINIMUM OF 4" TOPSOIL. REMOVE ALL CONSTRUCTION DEBRIS BEFORE TOPSOILING. TOPSOIL SHALL BE PLACED TO TOP OF CURB.
7. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER OR THE OWNERS REPRESENTATIVE PRIOR TO ARRIVAL ON THE SITE.
8. PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
9. THE CONTRACTOR SHALL LOCATE, VERIFY, AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTINGS AND UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
10. NO SUBSTITUTION OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
12. SEE PLANTING DETAILS FOR WEED BARRIER INFORMATION.
13. ALL PLANTING LOCATED AT THE ENTRANCE TO THE PROJECT OR AT INTERSECTIONS WITHIN THE SITE WILL BE MAINTAINED AND WILL NOT EXCEED 3 FEET IN HEIGHT WITHIN A TRIANGLE FORMED 25' INTO THE DRIVEWAY AND 25' ALONG THE TRAVEL WAY.

EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES. CLEARING AND GRADING LIMITS SHALL BE STAKED BY THE CONTRACTOR BASED ON THE LIMITS OF GRADING SHOWN ON THE DRAWINGS AND ACCEPTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. AFTER THE CLEARING AND GRADING LIMITS HAVE BEEN ACCEPTED, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE CONSTRUCTION ENTRANCES ASSOCIATED WITH THE PROJECT.
2. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE. TEMPORARY/PERMANENT SEED MIXTURES SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL PROJECT PREPARED FOR THIS PROJECT.
3. PRIOR TO PAVING, THE CONTRACTOR SHALL FLUSH SILT FROM ALL STORM LINES.
4. ALL STORM DRAIN INLETS AND OUTLETS NOT IN PAVED AREAS ARE TO RECEIVE RIPRAP PROTECTION APRONS DURING CONSTRUCTION.
5. SILT FENCES SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
6. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCE AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD, SWEEPING OF THE ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR.
7. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO TOPSOIL FOR USE IN LANDSCAPING OPERATIONS.
8. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.
9. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION / SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES AS ENFORCED BY THE MEDEP OR LOCAL AGENCIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.
10. A FULL EROSION/SEDIMENTATION CONTROL PLAN ACCOMPANIES THIS DRAWING SET AND IS ALSO CONTAINED IN THE SITE WORK SPECIFICATIONS.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
12. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS ½ THE STRUCTURE HEIGHT.
13. INSTALL CURLEX EROSION CONTROL MAT OR EQUAL ON ALL SLOPES STEEPER THAN 3:1.
14. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION & SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, CUMBERLAND COUNTY SOIL AND WATER CONVERSATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991"

LEGEND

EXISTING	PROPOSED
ZONING LINE	
EXISTING STRUCTURE	BUILDING
EDGE OF TRAVEL WAY, PAVEMENT, ROADS, DRIVES	PROPERTY LINE
CURBING	RETAINING WALL
PROPERTY LINE	CURBING
EASEMENT LINE	VERTICAL GRANITE*
OHE —OHW— OVERHEAD ELECTRIC LINES / OVERHEAD WIRES	SLOPED GRANITE*
UGE UNDERGROUND ELECTRIC LINE	EDGE OF PAVEMENT
UGT UNDERGROUND TELEPHONE LINE	GRADING CONTOUR LINE (100)
W WATER LINE	SPOT ELEVATION (100.31)
WATER GATE VALVE	GUARD POST/BOLLARD
12"SD STORM DRAIN LINE	POLE WITH LIGHT FIXTURE(S)
S SANITARY SEWER LINE	FREESTANDING SIGN
striping (typ) ROADWAY PAVEMENT STRIPING	BARRIER FREE PARKING SYMBOL
G GAS	PEDESTRIAN CROSSWALK
X FENCE	DIRECTION OF TRAFFIC FLOW
EXISTING CONTOUR LINE	UNDERGROUND TELEPHONE / CABLE (UGT/C)
EXISTING WETLANDS	UNDERGROUND ELECTRIC/TELEPHONE (UGE/T)
UTILITY POLE	WATER LINE (W)
SIGN	SEWER LINE (SAN1)
LIGHT POLE	GAS LINE (G)
CATCH BASIN	STORM DRAIN LINE (SD1)
S SEWER MANHOLE	HYDRANT
V ELECTRICAL/COMMUNICATIONS VAULT	WATER GATE VALVE
PB ELECTRICAL/COMMUNICATIONS PULL BOX	WATER SHUT OFF VALVE
HYDRANT	MANHOLE
TREES, LANDSCAPING	CATCH BASIN
TREELINE / EDGE OF BRUSH	EXISTING CATCH BASIN TO BE ALTERED
T TELEPHONE MANHOLE	RIPRAP
E ELECTRICAL MANHOLE	SILT FENCE (SF)
BT TEST BORING	CHAIN LINK OR SAFETY FENCE
WETLANDS	WOOD FENCE
	GUIDE RAIL
	LIMIT OF WORK
	STONE SEDIMENT BARRIER
	TRANSFORMER PAD
	TREE TO BE REMOVED

*OWNER RESERVES THE RIGHT TO MODIFY ALL ONSITE CURBING TO SLIPFORM CONCRETE

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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www.gorrillpalmer.com
207.772.2515

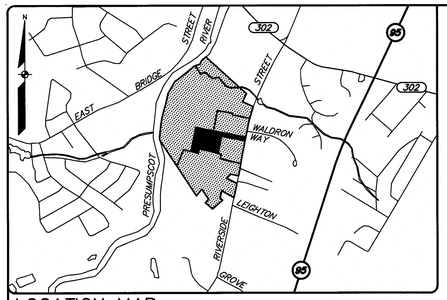
Drawing Name: GENERAL NOTES & LEGEND

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.1

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\2 - CAD\DWG\382401-COVER.dwg - 6/18/2021 1:16 PM



LOCATION MAP

N.T.S.

GRID N

SURVEYOR'S STATEMENT

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

CHARLES D. MARCHESE, PLS 2009 — JANUARY 23, 2018

EASEMENT LINE TABLE

LINE	DIRECTION	DISTANCE
E37	S 11°10'09" W	30.17'
E39	N 78°49'51" W	288.53'
E40	N 14°27'20" W	277.08'
E42	S 14°27'20" E	164.78'
E43	N 72°49'13" W	238.38'
E44	S 72°49'13" E	218.47'
E45	N 11°10'09" E	30.00'
E47	N 76°01'12" W	122.53'

N/F CYNTHIA A. PELLERIN & STEVEN G. PELLERIN MAP 13 LOT 13

APPROVAL-CITY OF PORTLAND PLANNING BOARD

1/23/2018 DATE

CHAIRPERSON

LEGEND

EXISTING

- PROPERTY LINE/R.O.W.
- ABUTTER LINE/R.O.W.
- TIE LINE
- SETBACK
- EASEMENT
- MONUMENT
- IRON PIPE/ROD
- C1/L1 DEED CALL
- BENCHMARK DESCRIPTION WITH ELEVATION — BENCHMARK
- BUILDING
- EDGE PAVEMENT
- EDGE CONCRETE
- EDGE GRAVEL
- EDGE OF WATER
- TREELINE
- --120-- --118-- CONTOURS
- X120.00 SPOT GRADE
- CHAIN LINK FENCE
- G GAS
- W WATER
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- S SANITARY SEWER
- SANITARY MANHOLE
- SD STORM DRAIN
- DECIDUOUS TREE
- CATCH BASIN
- OHU OVERHEAD UTILITY
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- FLOODPLAIN
- ZONE LINE
- ZONE LINE ON PL
- B-1 BORING
- EDGE WETLAND
- WETLANDS
- CURB LINE
- SHEET METAL FENCE
- GUARD RAIL
- CONCRETE BLOCK ENCLOSURE
- SIGN
- G GAS
- GAS GATE VALVE
- GM GAS METER
- TRANSFORMER PAD
- E ELECTRICAL MANHOLE
- RIPRAP
- 5/8" REBAR W/CP TO BE SET
- 8434 STRUCTURE NUMBER
- GRADE STAKE SET
- 3.5" DIAMETER PLANTER

FOR CITY OF PORTLAND USE

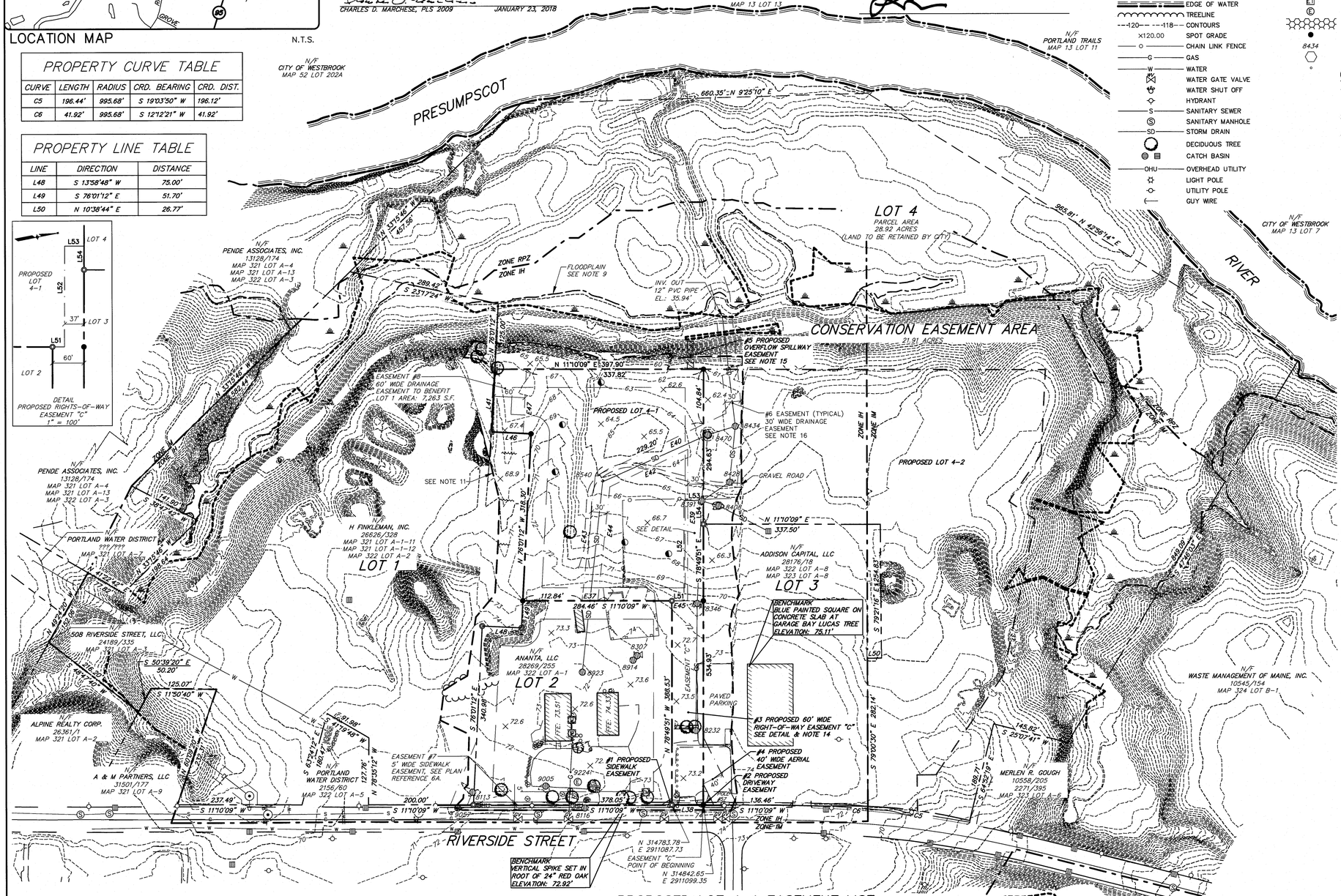
PROPERTY CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C5	196.44'	995.68'	S 19°03'50" W	196.12'
C6	41.92'	995.68'	S 12°12'21" W	41.92'

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L48	S 13°58'48" W	75.00'
L49	S 76°01'12" E	51.70'
L50	N 10°38'44" E	26.77'

DETAIL PROPOSED RIGHTS-OF-WAY EASEMENT "C" 1" = 100'



GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF PORTLAND BY DEED DATED MAY 18, 2010 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 27825, PAGE 68.
2. THE PROPERTY IS SHOWN AS MAP 322 LOT A-1 AND MAP 323 LOTS A-3 & A-5 ON THE CITY OF PORTLAND TAX MAPS AND IS LOCATED IN THE IH ZONING DISTRICT DISTRICT.
3. SPACE AND BULK CRITERIA FOR THE IH ZONING DISTRICT ARE AS FOLLOWS:

MINIMUM LOT SIZE:	NONE (CORRECTIONAL 10,000 SF)
MINIMUM STREET FRONTAGE:	60 FEET
MINIMUM FRONT YARD:	25 FEET
MINIMUM SIDE YARD:	35 FEET
MINIMUM REAR YARD:	35 FEET
MAXIMUM BUILDING HEIGHT:	75 FEET
MAXIMUM IMPERVIOUS SURFACE RATIO:	85%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

4. TOTAL AREA OF THE PROPOSED LOT 4-1 IS APPROXIMATELY 4.12 ACRES.
5. BOUNDARY INFORMATION AS DEPICTED HEREON IS BASED ON PLAN REFERENCE 6A, 6B AND 6C HEREON. SEBAGO TECHNICS, INC. HAS DONE A RETRACEMENT SURVEY OF LOT 2 AND A PARTIAL RETRACEMENT OF LOT 1 AND LOT 3 AS DEPICTED THEREON. THE PROPOSED LOT TO BE CONVEYED TO FOREFRONT COMMONS I, LLC BEING A PORTION OF LOT 4 AS DEPICTED ON THE HEREIN REFERENCED PLANS. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON PLAN REFERENCE 6A AND FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. ON THE PROPOSED SUBURBAN PROPANE LOT AND 60-FOOT WIDE RIGHT-OF-WAY IN OCTOBER 2015.
6. PLAN REFERENCES:
   A. "RIVERSIDE SUBDIVISION - SUBDIVISION RECORDING PLAT - OWNER OF RECORD: CITY OF PORTLAND, MAINE, PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101" DATED OCTOBER 7, 2010 BY WOODARD & CURRAN, STAMPED BY JOHN W. SWAN, PLS 1038. THIS PLAN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 210, PAGE 352.
   B. "CONSERVATION EASEMENT PLAN FOR THE TRUST FOR PUBLIC LAND, 116 NEW MONTGOMERY STREET, SAN FRANCISCO, CA 94105 EASEMENT LOCATED RIVERSIDE STREET, PORTLAND, MAINE" DATED MARCH 3, 2010 BY BOUNDARY POINTS, PROFESSIONAL LAND SURVEYING, LLC. THIS PLAN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 210, PAGE 129.
   C. "AMENDMENT TO RIVERSIDE SUBDIVISION LOT #3, (EXISTING CONDITIONS/PROPOSED LEASE AREA & ACCESS/UTILITY EASEMENT PLAN), MAP 323 LOT A008, LUCAS TREE, 636 RIVERSIDE STREET, PORTLAND, MAINE" DATED JANUARY 3, 2014 BY PROMISED LAND SURVEY, LLC. THIS PLAN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 214, PAGE 218.
7. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NGVD29, BASED ON DUAL FREQUENCY GPS OBSERVATIONS. ELEVATIONS WERE CONVERTED TO NGVD29 UTILIZING THE U.S. ARMY CORPS CORPSCON 6.0.1 SOFTWARE, THE CHANGE FROM NAVD88 TO NGVD29 IS +0.688 FEET IN THIS VICINITY.
8. UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
9. PORTIONS OF THE 2ND AMENDED SUBDIVISION AS DEPICTED HEREON DOES FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051 0006 C, HAVING AN EFFECTIVE DATE OF DECEMBER 8, 1998. PORTIONS OF THE SUBDIVISION PROPERTY IN PROXIMITY TO THE PRESUMPSCOT RIVER, IT'S TRIBUTARIES AND ADJACENT AREAS FALL WITHIN A ZONE AE, AREAS OF 100-YEAR FLOOD, HAVING A BASE FLOOD ELEVATION OF 35 IN THE SUBJECT AREA. PROPOSED LOT 4-1 AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA. PROPOSED LOT 4-1 FALLS IN AN UNSHADED ZONE X, AREAS DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOODPLAIN.
10. THE WETLAND DELINEATION AS DEPICTED HEREON IS AS DEPICTED ON PLAN REFERENCE 6A, SEBAGO TECHNICS, INC. HAS NOT PERFORMED AN INDEPENDENT WETLAND SURVEY.
11. THIS LINE REPRESENTS THE LIMITS OF THE TOPOGRAPHIC SURVEY PERFORMED BY SEBAGO TECHNICS, INC. FOR THIS PROJECT. THE REMAINING TOPOGRAPHIC INFORMATION WAS TAKEN DIRECTLY FROM PLAN REFERENCE 6A.
12. THERE ARE NO BUILDINGS LOCATED ON THE PROPOSED PARCEL.
13. PROPOSED LOT 4-1 IS SUBJECT TO DRAINAGE EASEMENTS REFERENCED HEREON AS EASEMENT #8 AS DEPICTED HEREON (60' WIDE DRAINAGE EASEMENT TO BENEFIT LOT 1 AS DESCRIBED IN CCRD BOOK 29103, PAGE 338) AND THE DRAINAGE EASEMENT REFERENCED HEREON AS EASEMENT #6 AS DEPICTED HEREON (30' WIDE DRAINAGE EASEMENT DESCRIBED IN CCRD BOOK 28269, PAGE 304").
14. THE 60' WIDE AND 37' WIDE RIGHTS-OF-WAY (EASEMENT "C") WILL BE OWNED IN FEE BY LOT 4-1. LOTS 2 AND 3 WILL HAVE RIGHTS OF INGRESS AND EGRESS OVER THIS 60' WIDE STRIP OF LAND TO THEIR RESPECTIVE LOTS PURSUANT TO AND IN ACCORDANCE WITH A SHARED ACCESS DRIVEWAY EASEMENT DATED NOVEMBER 1, 2010, RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 28269, PAGE 312, AND A SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT DATED NOVEMBER 15, 2010, RECORDED IN THE CCRD BOOK 28269, PAGE 314, AS AMENDED AND RESTATED BY A SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT (AMENDED AND RESTATED) OF NEAR DATE HEREWITH TO BE RECORDED IN THE CCRD (THE "AMENDED AND RESTATED DRIVEWAY MAINTENANCE AGREEMENT"). LOT 4 WILL HAVE RIGHTS OF INGRESS AND EGRESS OVER BOTH THE 60' AND 37' WIDE RIGHTS-OF-WAY AS SET FORTH IN AN EASEMENT RESERVED IN A DEED FROM THE OWNER OF LOT 4 TO THE OWNER OF LOT 4-1 OF NEAR DATE HEREWITH TO BE RECORDED IN THE CCRD, AS SUBJECT TO THE AMENDED AND RESTATED DRIVEWAY MAINTENANCE AGREEMENT AND A SEPARATE SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT FOR THE 37' WIDE RIGHT OF WAY OF NEAR DATE HEREWITH TO BE RECORDED IN THE CCRD, AS MAY BE AMENDED, SUBJECT TO THE TERMS AND CONDITIONS IN THE ABOVE REFERENCED DEED, THESE RIGHTS OF WAY MAY ALSO BE USED FOR PURPOSES OF THE INSTALLATION AND MAINTENANCE OF ALL UTILITIES.
15. STORMDRAIN OVERFLOW EASEMENT AREA: LOT 4-1 SHALL RETAIN RIGHTS AND PERMISSIONS TO ACCESS STORM DRAINAGE EASEMENT AREA FOR THE PURPOSES OF INSPECTION AND MAINTENANCE OF STORMWATER MANAGEMENT EMERGENCY SPILLWAY WHICH WILL BE CONSTRUCTED ON LOT 4. STORMDRAINAGE OVERFLOW EASEMENT AREA SHALL REMAIN FREE OF IMPEDIMENTS FOR THE FREE FLOW DISCHARGE OF STORM WATER FROM THE STORM WATER MANAGEMENT GRASSED UNDER DRAINED SOIL FILTER LOCATED ON LOT 4-1.
16. EXISTING STORM DRAINAGE EASEMENT: LOT 4-1 SHALL RETAIN RIGHTS AND PERMISSIONS TO ACCESS ALL AREAS OF THE STORM DRAINAGE EASEMENT AREA FOR THE PURPOSES OF CONSTRUCTION, CONVEYANCE OF STORMWATER, INSPECTION AND MAINTENANCE OF STORM DRAINAGE PIPES AND APPURTENANCES.
17. APPROVED WAIVERS:

"ON JUNE 28, 2016 FOR APPLICATION 2016-04 7 THE PLANNING BOARD VOTED 7-0 TO FIND, BASED ON THE CONSULTING ENGINEER'S REVIEW, THAT EXTRAORDINARY CONDITIONS EXIST OR UNDUE HARDSHIP MAY RESULT FROM STRICT COMPLIANCE WITH THE TECHNICAL MANUAL STANDARD (SECTION 5.III.E) WHICH REQUIRES THAT PROJECTS MUST DETAIN, RETAIN, OR RESULT IN THE INFILTRATION OF STORM WATER FROM 24-HOUR STORMS OF THE 2-YEAR, 10-YEAR, AND 25-YEAR FREQUENCIES SUCH THAT THE PEAK FLOWS OF STORMWATER FROM THE SITE DO NOT EXCEED THE PRE-DEVELOPMENT CONDITION, THAT SUBSTANTIAL JUSTICE AND THE PUBLIC INTEREST ARE SECURED WITH THE PROPOSED VARIATION IN THIS STANDARD, AND THAT THE VARIATION IS CONSISTENT WITH THE INTENT OF THE ORDINANCE, AS STORM WATER DRAINS DIRECTLY INTO THE PRESUMPSCOT RIVER. THE PLANNING BOARD WAIVED THE TECHNICAL MANUAL STANDARD (SECTION 5.III.E) TO ALLOW STORMWATER MANAGEMENT AND DRAINAGE AS PROPOSED IN THE FINAL PLAN."

PROPOSED LOT 4-1 EASEMENT LIST:

1. PROPOSED LOT 4-1 SIDEWALK EASEMENT OVER LOT 2 AT ACCESS EASEMENT "C".
2. PROPOSED LOT 4-1 DRIVEWAY EASEMENT OVER LOT 3 AT ACCESS EASEMENT "C".
3. AMENDED ACCESS EASEMENT "C" OVER PROPOSED LOT 4-1.
4. PROPOSED 40' WIDE AERIAL UTILITY EASEMENT.
5. OVERFLOW SPILLWAY OVER REMAINDER OF LOT 4.
6. EXISTING DRAINAGE EASEMENT OVER PROPOSED LOT 4-1 AND REMAINDER OF LOT 4 AS DEPICTED ON PLAN REFERENCE 6A.
7. SIDEWALK EASEMENT ALONG LOT 2 AND LOT 3 AT RIVERSIDE STREET AS DEPICTED ON PLAN REFERENCE 6A.
8. EXISTING 60' WIDE DRAINAGE EASEMENT AS DEPICTED ON PLAN REFERENCE 6A.

EASEMENT LINE TABLE

LINE	DIRECTION	DISTANCE
L51	N 11°10'09" E	23.00'
L52	N 78°49'51" W	191.40'
L53	N 11°10'09" E	37.00'
L54	S 78°49'51" E	45.00'

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L38	S 11°10'09" W	60.00'
L41	N 76°01'12" W	119.58'
L46	S 13°58'48" W	75.00'

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 INCH = 100FT.

STATE OF MAINE
CUMBERLAND COUNTY SS REGISTRY OF DEEDS
RECEIVED MAY 9
20 18
AT 10 h 06 Am
M. AND RECORDED IN
PLAN BOOK 218 PAGE 89
ATTEST
REGISTRAR

CHARLES D. MARCHESE, PLS 2009

STATE OF MAINE CHARLES D. MARCHESE No. 2009 PROFESSIONAL LAND SURVEYOR

	DESIGNED	CHECKED
	CDM	CLB

REV.	BY:	DATE:	STATUS:
H	CDM	01-23-18	REVISIONS PER REVIEW BY ALL PARTIES ATTORNEYS
G	CDM	12-13-17	REVISIONS PER REVIEW BY CITY OF PORTLAND
F	CDM	09-26-17	ADDED EASEMENT LIST
E	CDM	09-26-17	REVISED NOTE 15 AND ADDED NOTE 16 AND NOTE 17
D	CDM	06-14-16	ADDED TIES FOR EXISTING DRAINAGE EASEMENT
C	CDM	06-08-16	ADDED NOTE 15 PER CITY REVIEW COMMENTS
B	CDM	06-08-16	REVISIONS PER REVIEW BY CITY OF PORTLAND DATED 04-12-2016
A	CDM	10-29-15	ISSUED TO CLIENT FOR REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS

75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel: 207-200-2100

250 Goddard Rd. Suite B Lewiston, ME 04240 Tel: 207-783-9556

2ND AMENDED RIVERSIDE SUBDIVISION
FOR RECORD OWNER: Riverside Street Portland
THE CITY OF PORTLAND, MAINE
C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION
389 CONGRESS STREET, PORTLAND, MAINE 04101
PREPARED FOR:
THOMPSON'S POINT DEVELOPMENT CO., INC.
501 DANFORTH STREET
PORTLAND, MAINE 04102

PROJECT NO.	SCALE
15254	1" =100'

SHEET 1 OF 1

1523-458.dwg, TAB:1523-458

LOT 4-2
AREA: 7.01 ACRES

N 11°10'09" E 652.10'

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds
MEN'S DORMITORY - 74 Beds
WOMEN'S DORMITORY - 80 Beds
UTILITY/HVAC
DAY ROOM / CAFETERIA (212 SEATS)
KITCHEN 47' x 21'
FOYER
HEALTH CLINIC
OFFICE AREA
MAIN ENTRANCE
CANOPY
LOADING / SERVICE AREA
PLAZA
RAISED GARDEN & SOCIAL SPACES
OPEN AIR PAVILION / OUTDOOR SEATING
PAVEMENT / FLEX SPACE
SEE LANDSCAPE PLANS FOR YARD AREA DESIGN
FIRE ACCESS GATE
8 SPACES
14 SPACES
14 SPACES
7 SPACES
42'
62'
60'
PLAZA
21' TYP.
9' TYP.
DROP-OFF
EXISTING EASEMENT LINE
EASEMENT
WIDE DRIVEWAY EASEMENT
30' WIDE UTILITY EASEMENT

6" BOLLARD, TYP.
10' MIN. PAVEMENT SETBACK, TYP.
5' WIDE BITUMINOUS SIDEWALK
20' WIDE RAISED CROSSWALK
HARD SURFACE PLAZA AREA - SEE LANDSCAPE PLANS FOR DETAILS
STANDARD-DUTY PAVEMENT, TYP.
ELECTRIC VEHICLE CHARGING POST, TYP. OF 8
12' WIDE RAISED CROSSWALK
24' WIDE PAVED ACCESS DRIVE
8' WIDE ESPLANADE
12' WIDE BITUMINOUS SIDEWALK
SLIPFORM CONCRETE CURB (TYP.)
12' WIDE RAISED CROSSWALK
GUARDRAIL
EXISTING OVERHEAD LINES TO REMAIN
EXISTING PARKING FOR TRAIL TO REMAIN
TIPDOWN
TIPDOWN
PROPOSED GRANITE CURB
L=95.10'-R=990.18'

N 45°41'56" E 60.70'
S 44°18'04" E 114.46'
S 67°07'37" E 301.08'
S 76°01'12" E 161.35'
S 10°28'13" W 36.16'
S 79°31'47" E 68.00'
N 79°01'47" W 282.12'
S 45°30'01" E 230.89'
N 79°21'16" W 254.83'
337.50' S 11°10'09" W
N 78°49'53" W 254.65'
N 10°38'44" E 26.77'
15.4'
18.17'
30.37'
20' TYP.
31'
20'
45'
60'
62'
64'
66'
68'
72'
82.32'
R35'
R15'
R25'
R45'

INV. IN-8" HDPE 62.67'
CB 1081 RIM: 65.88'
INVERT OUT 15" HDPE 52.16'
UNDERGROUND SERVICE TO TOWER
EXISTING 5/8" REBAR, FLUSH
EXISTING 5/8" REBAR, BENT
BENCHMARK BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE ELEVATION: 75.11'
BENCHMARK VERTICAL SPIKE SET IN ROOT OF 24" RED OAK ELEVATION: 72.92'
EASEMENT "C" POINT OF BEGINNING
N 314842.65 E 2911099.35
N 314783.78 E 2911087.73
PROPOSED SIDEWALK EASEMENT A ±123 S.F.
PROPOSED DRIVEWAY EASEMENT B ±19 S.F.
#1 PROPOSED SIDEWALK EASEMENT
#2 PROPOSED DRIVEWAY EASEMENT
#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14
#4 PROPOSED 40' WIDE AERIAL EASEMENT
PROPOSED LOT 4-1 PROPOSED 60' WIDE RIGHT-OF-WAY
EXISTING SIDEWALK EASEMENT TO CITY OF PORTLAND
N 22°18'27" W 23.08'
N 47°34'01" E 6.98'
S 11°10'09" W 12.56'
S 11°10'09" W 7.23'
S 78°49'51" E 13.33'
S 78°49'51" W

PROPOSED SUBURBAN PROPANE LOT 4-1
STORAGE 4,000 SF
OFFICE 7,300 SF
GARAGE 1,100 SF
OFFICE 1,100 SF

N/F ANANTA, LLC 28269/255 MAP 322 LOT A-1 LOT 2
N/F ADDISON CAPITAL, LLC 28176/18 MAP 322 LOT A-8 MAP 323 LOT A-8 LOT 3
N/F MERLEN R. GOUGH 10558/205 2271/395 MAP 323 LOT A-6
N/F WASTE MANAGEMENT OF MAINE, INC. 10545/154 MAP 324 LOT B-1

REMAINDER OF LOT 4
CONSERVATION EASEMENT AREA
21.91 ACRES

WOOD SIGN POST
WOOD SIGN POST
METAL POST
METAL POST
EXISTING PROPERTY LINE
RIP RAP AREA
WETLANDS FROM SURVEY PLAN REFERENCE 6A
GRAVEL DRIVEWAY
RIVERSIDE STREET

B-101 B-102 B-103 B-104 B-105 B-106
TP-101 TP-102 TP-103 TP-104 TP-105 TP-106 TP-107 TP-108 TP-109 TP-110 TP-111 TP-112 TP-113 TP-114 TP-115 TP-116 TP-117 TP-118 TP-119 TP-120 TP-121 TP-122

ZONING ANALYSIS Relevant Zone(s) IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

VERTICAL GRANITE CURB
SLIPFORM CONCRETE CURB

SIGN LEGEND

STOP R1-1 30"x 30" A	RESERVED PARKING R7-8 12"x 18" B	RESERVED PARKING VAN ACCESSIBLE R7-8 12"x 18" C
NO PARKING R8-3a 24"x 30" D	AUTHORIZED VEHICLES ONLY R5-11 30"x 24" E	VISITOR PARKING – – F

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

50 0 25 50 100
1 inch = 50 ft.

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE.dwg		

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207.772.2515

Drawing Name: SITE LAYOUT PLAN
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-3.0

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SEE SHEET C-4.1 FOR 20 SCALE ENLARGEMENT

SEE SHEET C-4.1 FOR 20 SCALE ENLARGEMENT

#5 PROPOSED OVERFLOW SPILLWAY EASEMENT

#6 EASEMENT (TYPICAL) 30' WIDE DRAINAGE EASEMENT

PROPOSED HOMELESS SERVICES CENTER

PROPOSED SUBURBAN PROPANE LOT 4-1

STORAGE 1,000 SF

OFFICE 7,300 SF

GARAGE

OFFICE

SWM

SWM

SWM

30' WIDE UTILITY CORRIDOR

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8 REBAR, BENT

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

N/F
MERLEN R. GOUGH
10558/205
2271/295
MAP 323 LOT A-6

#1 PROPOSED SIDEWALK EASEMENT

PROPOSED LOT 4-1
PROPOSED 60' WIDE RIGHT-OF-WAY

EXISTING SIDEWALK EASEMENT 2.72 OUT OF PORTLAND STREET

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

PROPOSED SIDEWALK EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

N 314783.78
E 2911087.73

RIVERSIDE STREET

N 1170'09" E 652.10'

337.50' S 1170'09" W

N 7949'53" W 294.65'

N 7927'16" W 454.83'

N 7900'31" W 282.12'

S 1028'13" W 36.16'

S 7901'47" E 68.00'

L=95.10' R=990.18'

N 2218'27" W 23.08'

N 4734'01" E 8.98'

S 1110'09" W 19.85'

N 1110'09" E 7.23'

N 7849'51" W

N 1028'44" E 26.77'

S 7901'47" E 230.97'

S 4457'58" E

N 4541'36" E 80.70'

S 6719'12" E 301.08'

161.35' S 7601'12" E

108.46' S 4418'24" E

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

NORTH

50 0 25 50 100
1 inch = 50 ft.

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

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File Name: 382401-GRADING.dwg		

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Drawing Name: GRADING & DRAINAGE PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.0

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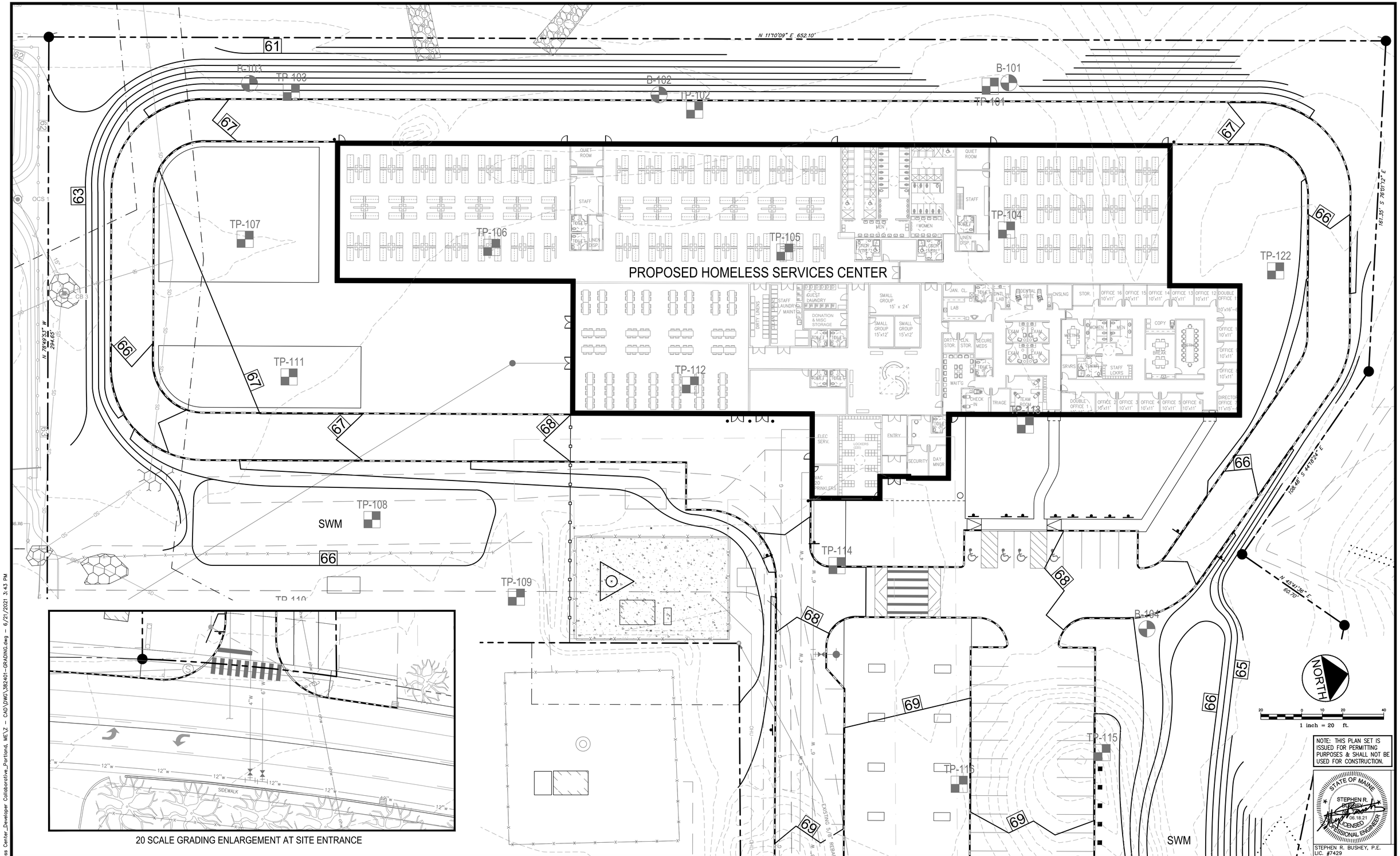

20 SCALE GRADING ENLARGEMENT AT SITE ENTRANCE

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
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File Name: 382401-GRADING.dwg		

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Drawing Name: 20 SCALE GRADING ENLARGEMENTS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.1

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CATCH BASIN SEDIMENT BARRIER, TYP.

SILTATION BARRIER AT LIMIT OF WORK / TOE OF SLOPE, TYP.

STABILIZED CONSTRUCTION ENTRANCE

PROPOSED SUBURBAN PROPANE LOT 4-1

STORAGE 4,000 SF

OFFICE 7,300 SF

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 30 Beds

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

OFFICE AREA

HEALTH

LAUNDRY

LOADING / SERVICE AREA

MAIN ENTRANCE

PLAZA

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION / OUTDOOR SEATING

FIRE ACCESS GATE

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

30' WIDE UTILITY CORRIDOR

#6 EASEMENT (TYPICAL) 30' WIDE DRAINAGE EASEMENT

CASED GAS & SOCIAL SF

#1 PROPOSED SIDEWALK EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

PROPOSED LOT 4-1 PROPOSED 60' WIDE RIGHT-OF-WAY

EXISTING SIDEWALK EASEMENT INTO CITY OF PORTLAND RIGHT-OF-WAY

PROPOSED SIDEWALK-EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

EASEMENT "C" POINT OF BEGINNING

N 314842.65
E 2911099.35

N 314783.78
E 2911087.73

N 22°18'27" W
23.08'

S 78°49'51" E
5.33'

N 47°34'01" E
6.98'

S 11°10'09" W
19.45'

S 11°10'09" W
7.23'

RIVERSIDE STREET

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8" REBAR, BENT

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

50 0 25 50 100
1 inch = 50 ft.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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File Name: 382401-EROSION.dwg		

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207.772.2515

Drawing Name: EROSION & SEDIMENT CONTROL PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-5.0

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N 11°10'09" E 652.10'

PROPOSED SUBURBAN PROPANE LOT 4-1

STORAGE 4,000 SF

OFFICE 7,300 SF

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 30 Beds

UTILITY

RAISED GARDENS / SOCIAL SPACES

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION / OUTDOOR SEATING

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH

OFFICE AREA

FIRE ACCESS GATE

LOADING / SERVICE AREA

CANOPY

MAIN ENTRANCE

PLAZA

EXIT INVERT T.B.D.

PROP. SMH 1
RIM =
INV. IN (6") = 64.11
INV. OUT (6") = 64.01

6" SAN

8" SAN

8" SAN
L = 286'
S = 0.005

N 28°49'53" W 294.65'

337.50' S 11°10'09" W

20' x 10' GENERATOR PAD

9' x 9' TRANSFORMER PAD

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

EX. SMH 3
RIM = 66.63
INV. IN (8") = 62.58
INV. OUT (8") = 62.48
(RECONSTRUCT CHANNEL FOR NEW INLET)

SMH 3

SMH 4

SMH 2

SMH 1

WYE

30' WIDE UTILITY CORRIDOR

HYDRANT ASSEMBLY

N 42°41'56" E 60.70'

108.46' S 44°18'04" E

161.35' S 76°01'12" E

301.08' S 67°19'04" E

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8" REBAR, BENT

N 10°38'44" E 26.77'

N 79°21'16" W 254.83'

N 79°00'31" W 282.12'

S 79°31'47" E 68.00'

S 10°28'13" W 36.16'

230.91' S 44°57'30" E

L=95.10' R=990.18'

12" x 4" TEE AND VALVE (DOMESTIC)

12" x 6" TEE AND VALVE (FIRE)

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

RIVERSIDE STREET

EX. DROP SMH 1
RIM = 73.64
INV. IN (8") = 60.27
INV. IN (12") = 53.88
INV. OUT (12") = 53.87

EX. SMH 2
RIM = 73.64
INV. IN (8") = 61.25
INV. OUT (8") = 61.15

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

1 inch = 50 ft.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-UTIL.dwg		

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Drawing Name: UTILITY PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-6.0

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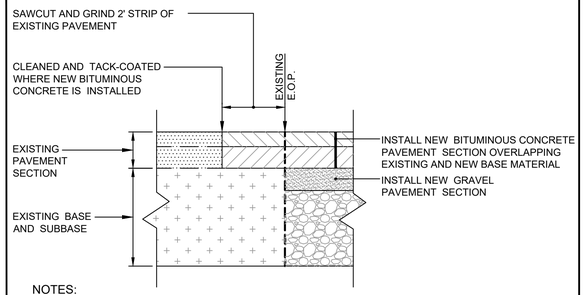
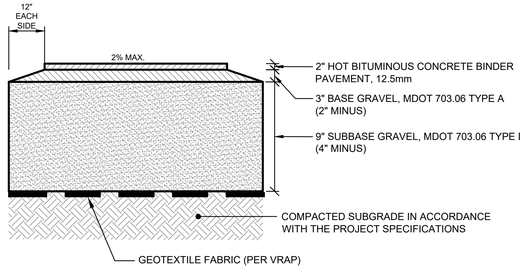


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

(A) TYPICAL PAVEMENT SECTION NEW PAVEMENT ADJACENT TO EXISTING PAVEMENT

N.T.S.

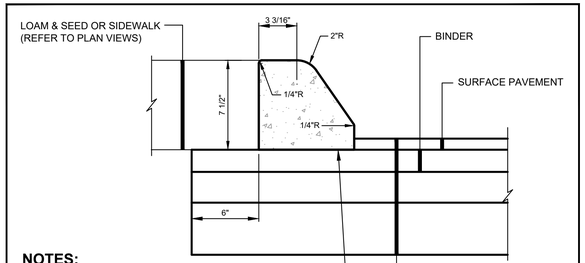


NOTES:

1. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
2. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS.

(B) BITUMINOUS CONCRETE SIDEWALK SECTION FOR SITE INSTALLATION

N.T.S.



NOTES:

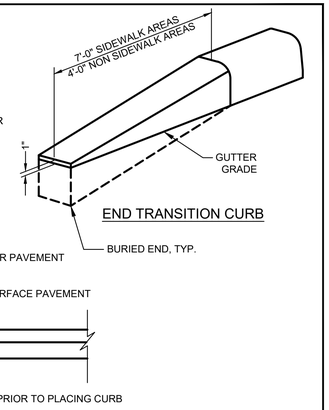
1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT AND SAWCUT JOINTS AT NO MORE THAN 30' SPACING
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD™ CHLORIDE INHIBITOR TO ALL NEW CONCRETE CURBING UPON COMPLETION OF CURING PERIOD.
6. ALL TIPDOWNS SHALL HAVE REINFORCEMENT TO AVOID CRACKING. TIPDOWNS SHALL HAVE NO MORE THAN 1/2" REVEAL AT THE END.

(C) DIRECT TO BINDER SLIPFORM CONCRETE CURB

N.T.S.

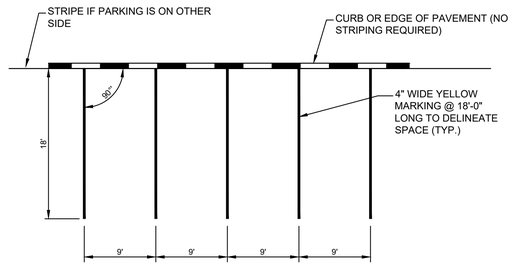
NOTES:

1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT.
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD ™ TREATMENT TO ALL CONCRETE CURB.



(D) EXTRUDED SLIPFORM SLOPED CONCRETE CURB DETAIL

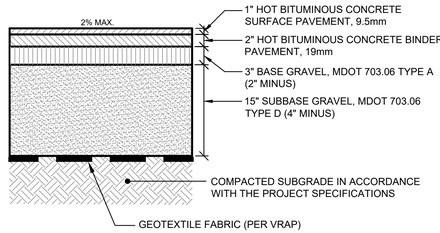
N.T.S.



NOTE:
WHEN PARKING IS ON A CURVE THE NARROWEST PORTION OF THE PARKING STALL SHALL MEET THE WIDTH SHOWN.

(E) STANDARD PARKING STALL STRIPING

N.T.S.

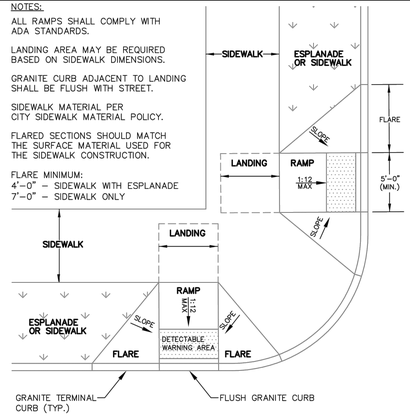


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS AND DRIVEWAYS.

(F) STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT SECTION

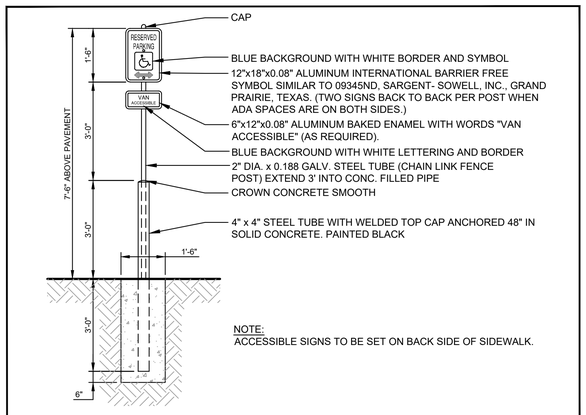
N.T.S.



(G) PREFERRED SIDEWALK RAMP AT INTERSECTION

N.T.S.

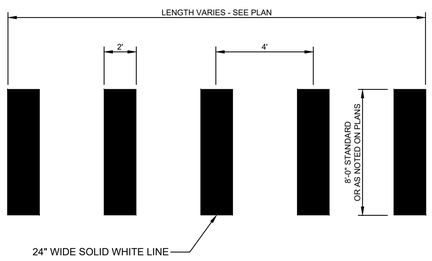
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTE:
ACCESSIBLE SIGNS TO BE SET ON BACK SIDE OF SIDEWALK.

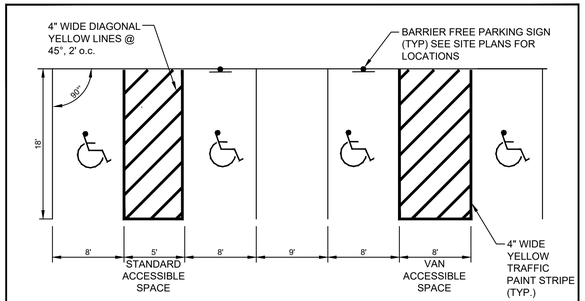
(H) BARRIER FREE PARKING SIGN

N.T.S.



(I) CROSSWALK STRIPING DETAIL

N.T.S.



NOTES:

1. ONE IN EIGHT BARRIER FREE SPACES (MIN.) MUST BE VAN ACCESSIBLE. THIS HAS BEEN PROVIDED FOR ON THE SITE LAYOUT PLAN.
2. BARRIER FREE GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN PARKING STALL. SYMBOL TO BE PAINTED ON BLUE NON-SKID BACKGROUND.

(J) TYPICAL BARRIER FREE PARKING STALL DIMENSIONS

N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–DETAILS.dwg		

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Drawing Name: SITE DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.0

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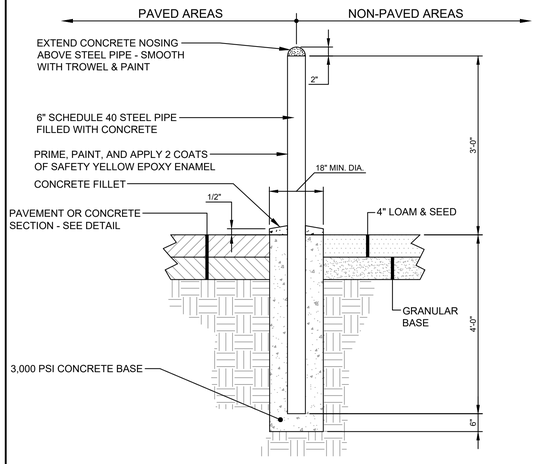

A PIPE BOLLARD DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

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Drawing Name: SITE DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
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Drawing No. C-8.1

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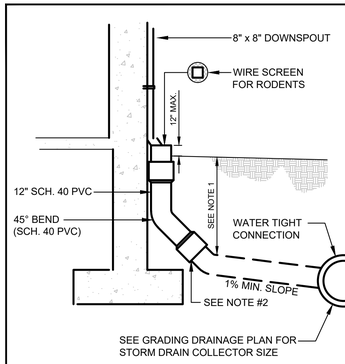


NOTES:

1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.

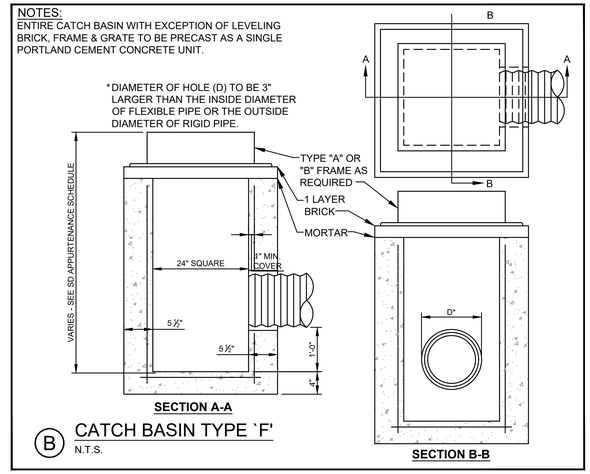
2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

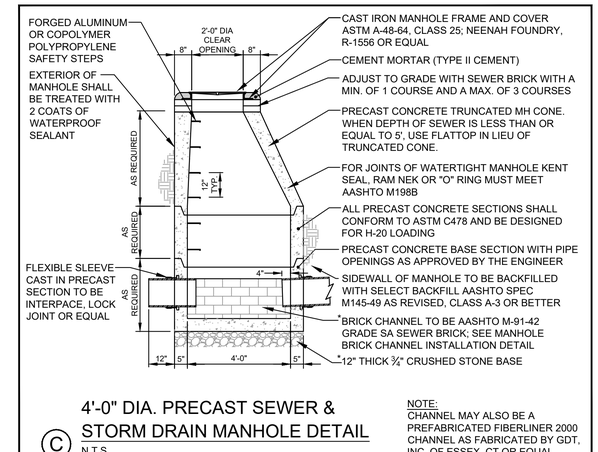
NOTE:
ARCHITECT MAY ELECT TO USE INTERNAL ROOF DRAINS - REFER TO ARCHITECTURAL PLANS

(A) ROOF DRAIN DETAIL
N.T.S.

NOTES:
ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK, FRAME & GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT.

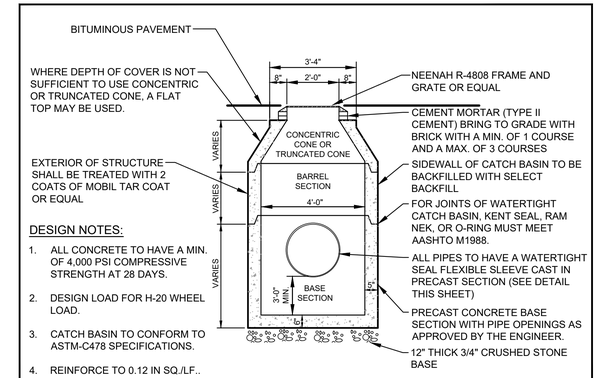


(B) CATCH BASIN TYPE `F'
N.T.S.



(C) 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL
N.T.S.

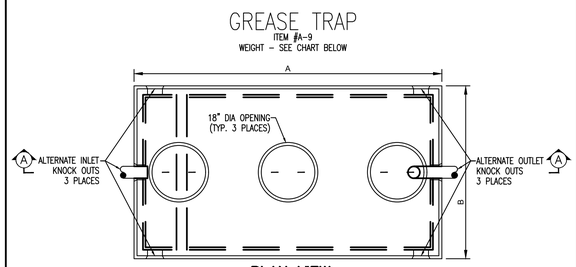
NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

(D) 4'-0" PRECAST CATCH BASIN DETAIL
N.T.S.

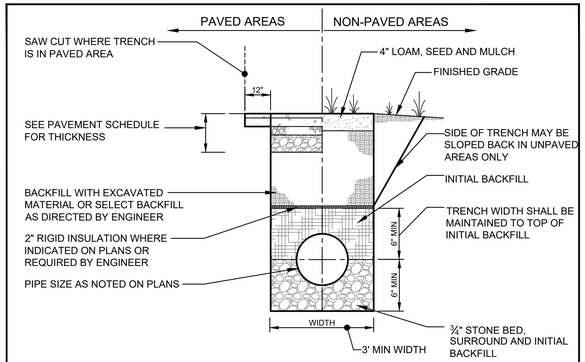


LIQUID CAPACITY	A	B	C	D	WEIGHT	ITEM #	HEAVY DUTY ITEM #
750	8'-6"	4'-10"	42"	52"	7400 LBS	A-901	A-901HD
1000 REG	8'-6"	4'-10"	55 1/2"	64"	8100 LBS	A-902	A-902HD
1000 LB	10'-6"	6'-4"	37 1/2"	48"	10,500 LBS	A-903	A-903HD
1500	10'-6"	6'-4"	55 1/2"	64"	11,220 LBS	A-904	A-904HD
2000	10'-6"	6'-4"	65"	74"	12,250 LBS	A-905	A-905HD

DESIGN NOTES:
1 - CONCRETE 4000 PSI AT 28 DAYS.
2 - INLET BAFFLE IS PRECAST AS ONE UNIT WITH THE TOP SECTION OF THE SEPTIC TANK.
3 - TANKS REINFORCED WITH 6X6X10 G.A. WIRE.
4 - KEYED JOINTS SEALED WITH ASPHALT SEALANT.
5 - HEAVY DUTY SEPTIC TANK TOPS REINFORCED WITH 1/2" REBAR ON 6" CENTERS EACH WAY.
6 - GREASE FILTER AVAILABLE.

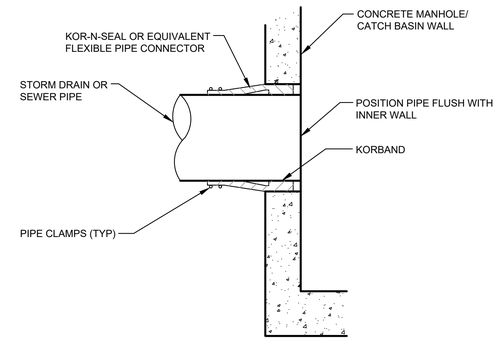
PRECAST CONCRETE PRODUCTS OF MAINE, INC. PHONE (207) 729-1628 FAX (207) 729-8710

(E) GREASE TRAP DETAIL
N.T.S.



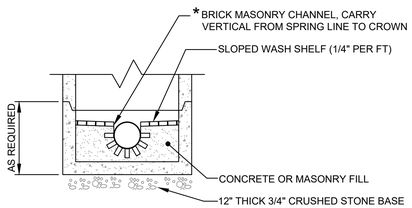
NOTE:
BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

(F) TYPICAL SEWER AND STORM DRAIN TRENCH SECTION
F



(G) PIPE CONNECTION TO PRECAST CONCRETE SANITARY SEWER AND STORM DRAINAGE STRUCTURES
N.T.S.

*NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



NOTES:

1. BRICK CHANNEL TO BE AASHTO M-91-42 GRADE SA SEWER BRICK.*
2. MANHOLE TEST TO BE ACCOMPLISHED AFTER CHANNEL INSTALLATION IS COMPLETE.
3. WHERE THE ALIGNMENT CHANGES OR SIDE FLOW ENTERS THE MANHOLE, CONSTRUCT CHANNEL WITH A SMOOTH RADIAL CHANNEL TO ACCOMPLISH ALL JUNCTIONAL CHANGE OF ALIGNMENT WITHIN MANHOLE.

(H) MANHOLE BRICK CHANNEL INSTALLATION DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing Name: STORM DRAIN & UTILITY DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.2

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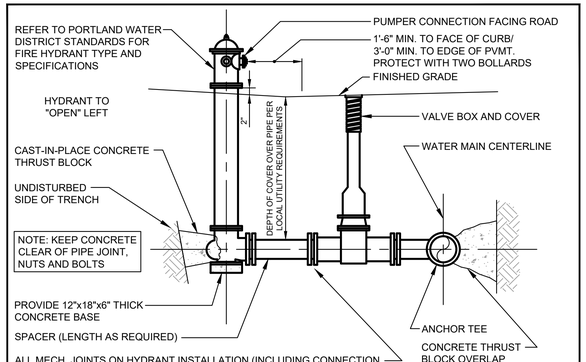


(A) FIRE HYDRANT INSTALLATION DETAIL
N.T.S.

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.

2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.

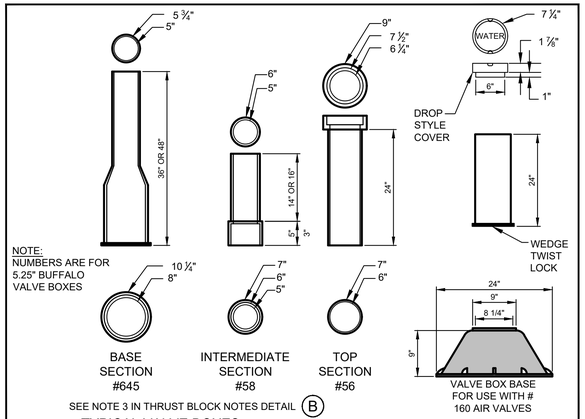
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.

4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING.™

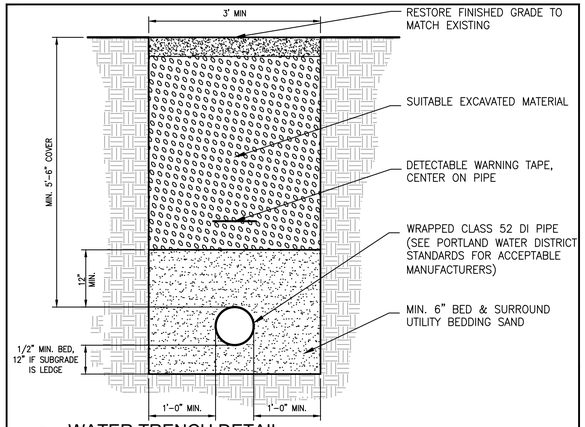
BEARING SURFACE REQUIRED IN SQUARE FEET

PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
6"/8"	5.0	5.0	5.0	6.5	5.0
12"	11.5	11.5	11.5	20.0	22.0

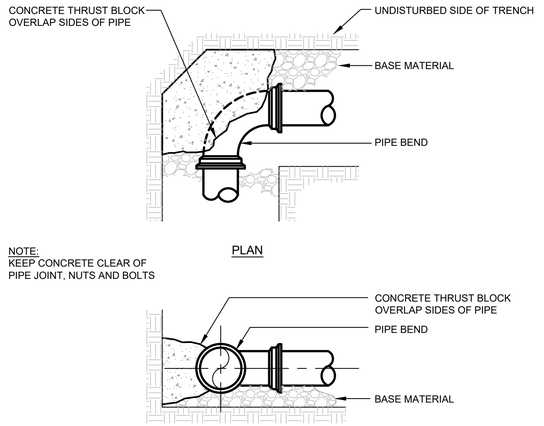
(B) THRUST BLOCK NOTES
N.T.S.



(C) TYPICAL VALVE BOXES
N.T.S.



(D) WATER TRENCH DETAIL
N.T.S.



NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

THRUST/RETAINER GLAND SCHEDULE

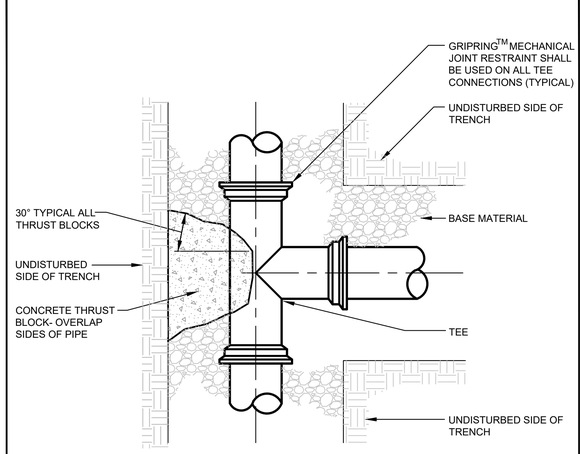
¼ BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK WITH GRIPRING™ MECHANICAL JOINT RESTRAINT
⅛ BEND	(45°)	THRUST BLOCK w/ GRIPRING™
1/16 BEND	(22 ½°)	THRUST BLOCK w/ GRIPRING™
1/32 BEND	(11 ¼°)	THRUST BLOCK w/ GRIPRING™

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

NOTES:

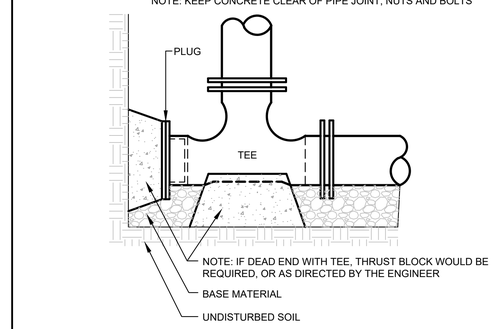
1. THE PORTLAND WATER DISTRICT MAY HAVE INSPECTION FEES AND REQUIRE OBSERVATION OF ALL PIPING INSTALLATION BEFORE BURIAL. REFER TO SPECIFICATIONS.
2. FOR WATER MAIN LAYOUT SEE SHEET C-5.0.
3. FOR WATER MAIN TRENCH SEE DETAILS ON THIS SHEET.
4. REFER TO PORTLAND WATER DISTRICT SPECIFICATIONS FOR TESTING AND CHLORINATION REQUIREMENTS.
5. ALL HYDRANTS AND VALVES TO BE EPOXY COATED, NUTS AND BOLTS TO BE STAINLESS STEEL.
6. SERVICE RODS FOR DOMESTIC SERVICE OR AIR VALVES TO BE STAINLESS STEEL.

(E) TYPICAL THRUST BLOCK PLACEMENT BENDS
N.T.S.



NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

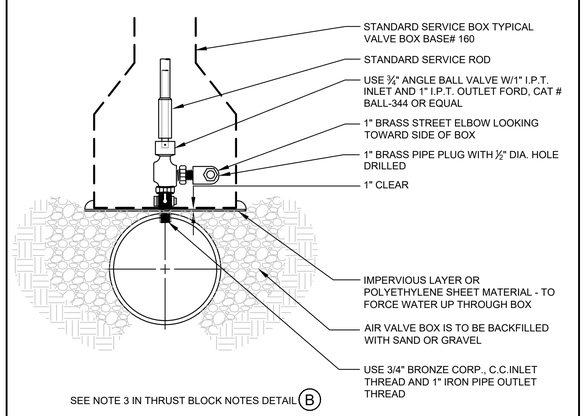
(F) TYPICAL THRUST BLOCK PLACEMENT ON TEES
N.T.S.



USE GRIPRINGS™ AT ALL RESTRAINED JOINTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (B)

(G) STANDARD TEE BLOCKING DETAIL
N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (B)

TORQUE SCHEDULE

PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT-LB.	LENGTH OF WRENCH IN *
2 - 3	5/8	45 - 60	8
4 - 24	3/4	75 - 90	10
30 - 36	1	85 - 100	12
42 - 48	1 1/4	105 - 120	14

* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

(H) TYPICAL AIR VALVE SECTION (1")
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.18.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing Name: WATER DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.3

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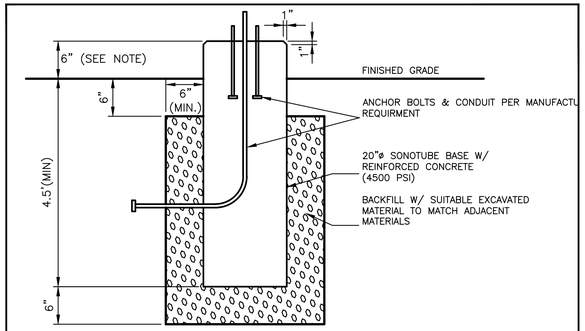
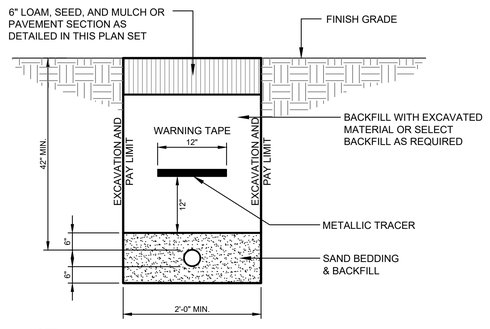


NOTES:

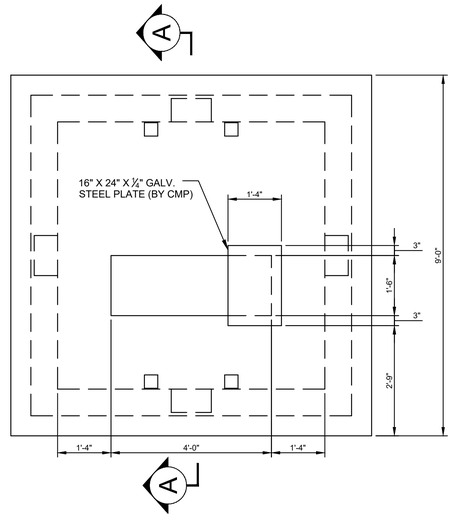
1. ALL LIGHT POLE BASES TO BE SET 6" ABOVE GRADE (MINIMUM) AND LIGHT BOLLARD BASES SHALL BE SET 3" ABOVE GRADE. OR AS DESCRIBED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL CONFIRM PRIOR TO ANY POLE INSTALLATIONS.
2. BASE SIZE TO BE CONFIRMED WITH THE LIGHT POLE SUPPLIER.

(A) TYPICAL PARKING LOT LIGHTING POLE FOUDATION
N.T.S.

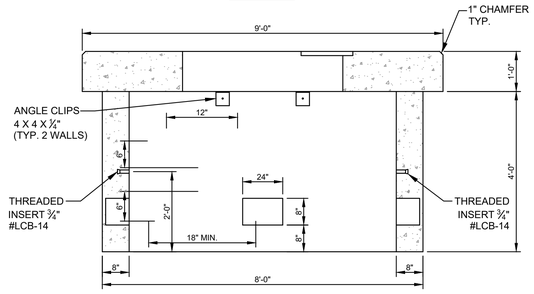


NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

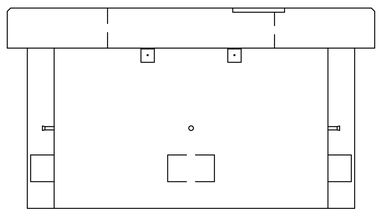
(E) GAS SERVICE TRENCH SECTION
N.T.S.



PLAN VIEW



SECTION VIEW

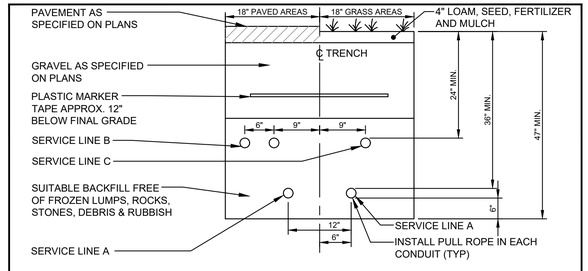


END VIEW

NOTES:

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT.
2. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS, AS MANUFACTURED BY SUPERIOR CONCRETE OR EQUAL.
3. FINAL SIZING TO BE BY ELECTRICAL DESIGNER.
4. ONE 8" x 24" KNOCKOUT PROVIDED EACH WALL.
5. FOR 750 - 5000 KVA THREE PHASE TRANSFORMER.
6. FINISH GRADE SHALL BE GRADED TO ALLOW SURFACE WATER TO FLOW AWAY FROM THE PAD.

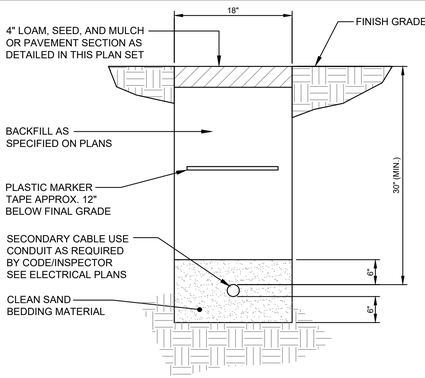
(B) 9'-0" TRANSFORMER PAD
N.T.S.



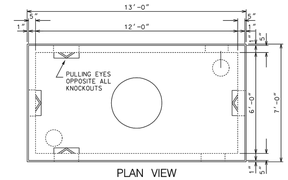
NOTES:

1. FOR CONDUIT TYPES AND SIZES SEE ELECTRICAL PLAN

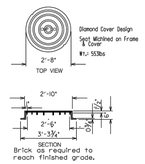
(C) UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS
N.T.S.



(F) SECONDARY ELECTRICAL TRENCH DETAIL
N.T.S.



MANHOLE DETAIL
N.T.S.
(Ref.Types 38Y)

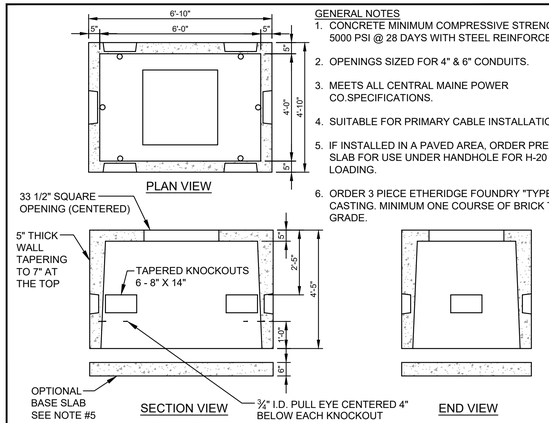


COVER DETAIL
N.T.S.

NOTES

1) Vault shall be designed to withstand H20 wheel loading with 6 inches of overburden. The design shall also comply with the strength requirements of National Electrical Safety Code Section 323a. Provide design calculations signed by a State of Maine Registered Professional Engineer upon Request
2) Joints sealed with asphalt.
3) Mountings for cable racks etc. cast in wall by further plans or field locates.
4) Manhole shall be set on a suitable gravel base.
5) Cables are to be racked along one wall only.

(D) PRECAST CONCRETE 38Y MANHOLE
N.T.S.



GENERAL NOTES

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 5000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT
2. OPENINGS SIZED FOR 4" & 6" CONDUITS.
3. MEETS ALL CENTRAL MAINE POWER CO.SPECIFICATIONS.
4. SUITABLE FOR PRIMARY CABLE INSTALLATIONS.
5. IF INSTALLED IN A PAVED AREA, ORDER PRECAST SLAB FOR USE UNDER HANDHOLE FOR H-20 LOADING.
6. ORDER 3 PIECE ETHERIDGE FOUNDRY "TYPE B" CASTING. MINIMUM ONE COURSE OF BRICK TO GRADE.

(G) SPLICE BOX DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 06.10.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: ELECTRIC & UTILITY DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.4

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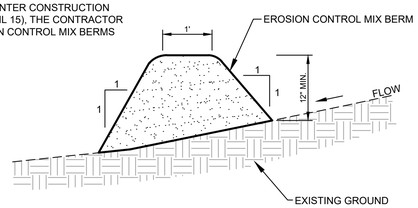
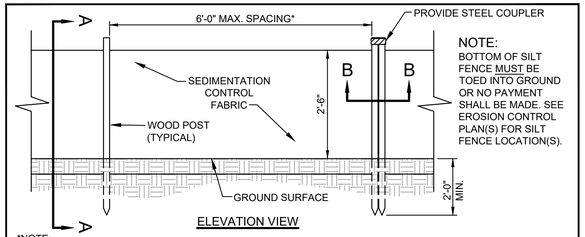
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- PH SHALL FALL BETWEEN 5.0 AND 8.0.

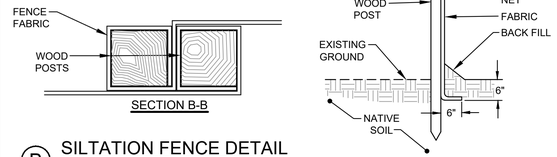
(A) EROSION CONTROL MIX BERM DETAIL
N.T.S.



NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND OR NO PAYMENT SHALL BE MADE. SEE EROSION CONTROL PLAN(S) FOR SILT FENCE LOCATION(S).

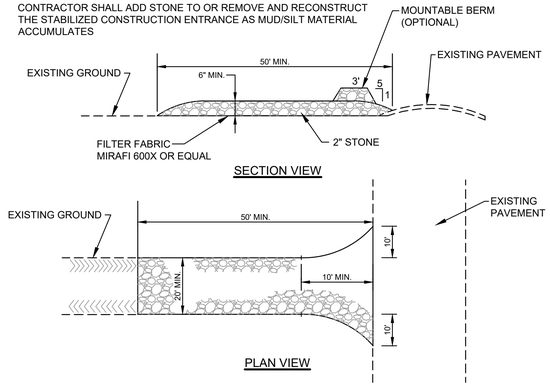
ELEVATION VIEW

*NOTE:
THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6', UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT, A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".

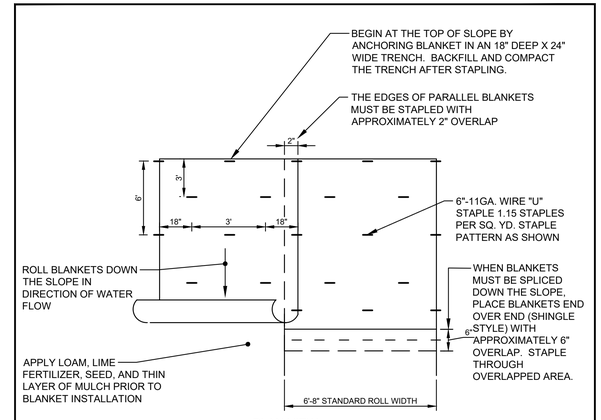


(B) SILTATION FENCE DETAIL
N.T.S.

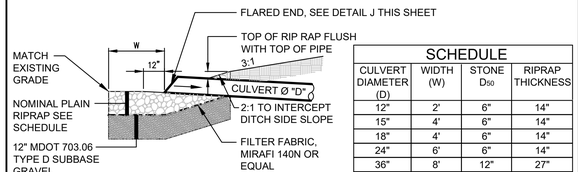
NOTE:
CONTRACTOR SHALL ADD STONE TO OR REMOVE AND RECONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES



(C) STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

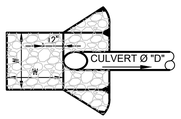


PLAN VIEW



SECTION VIEW

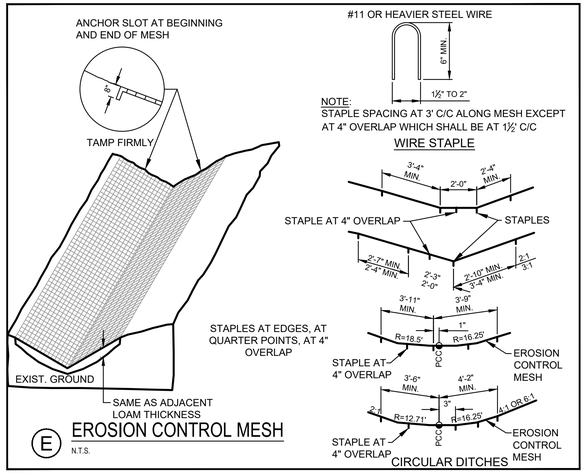
SCHEDULE			
CULVERT DIAMETER (D)	WIDTH (W)	STONE D_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"



PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(D) PIPE/CULVERT INLET APRON
N.T.S.

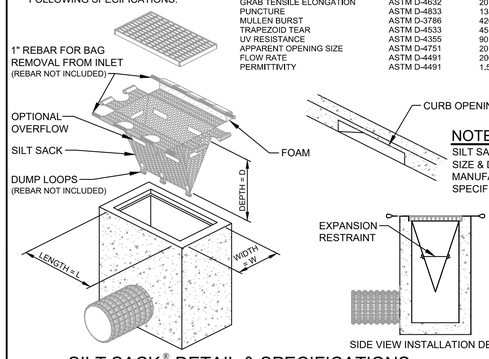


(E) EROSION CONTROL MESH
N.T.S.

NOTE: THE SILT SACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

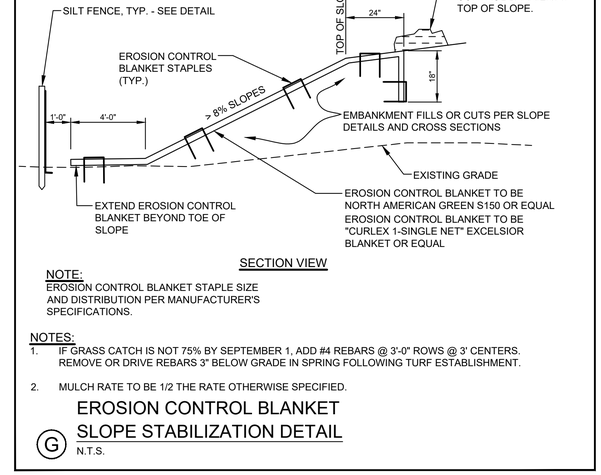
HIGH-FLOW SILT SACK ® (FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1



NOTE:
SILT SACK ® SIZE & DIMENSIONS PER MANUFACTURER'S SPECIFICATIONS.

(F) SILT SACK ® DETAIL & SPECIFICATIONS
N.T.S.

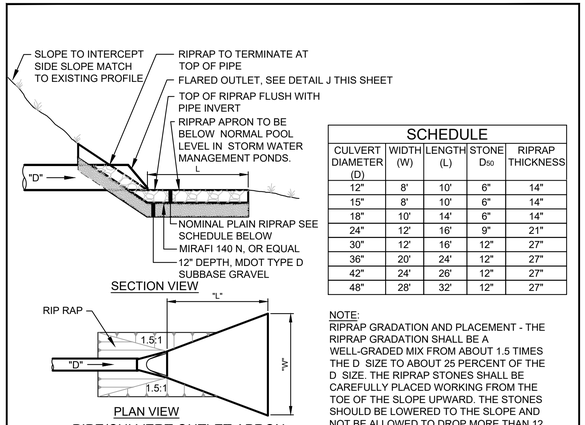


SECTION VIEW

NOTE:
EROSION CONTROL BLANKET STAPLE SIZE AND DISTRIBUTION PER MANUFACTURER'S SPECIFICATIONS.

NOTES:
1. IF GRASS CATCH IS NOT 75% BY SEPTEMBER 1, ADD #4 REBARS @ 3'-0" ROWS @ 3' CENTERS. REMOVE OR DRIVE REBARS 3" BELOW GRADE IN SPRING FOLLOWING TURF ESTABLISHMENT.
2. MULCH RATE TO BE 1/2 THE RATE OTHERWISE SPECIFIED.

(G) EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL
N.T.S.



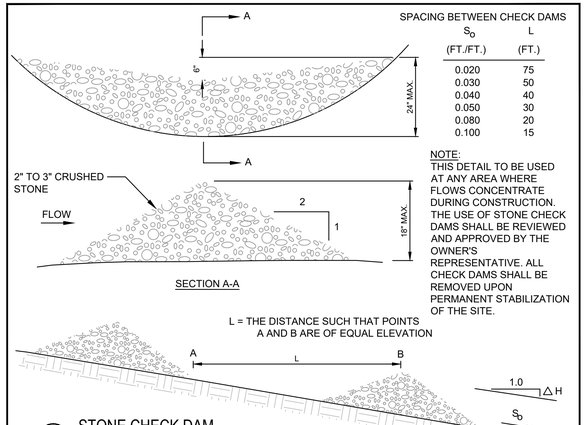
SECTION VIEW

SCHEDULE				
CULVERT DIAMETER (D)	WIDTH (W)	LENGTH (L)	STONE D_{50}	RIPRAP THICKNESS
12"	8'	10'	6"	14"
15"	8'	10'	6"	14"
18"	10'	14'	6"	14"
24"	12'	16'	9"	21"
30"	12'	16'	12"	27"
36"	20'	24'	12"	27"
42"	24'	26'	12"	27"
48"	28'	32'	12"	27"

PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(H) PIPE/CULVERT OUTLET APRON
N.T.S.

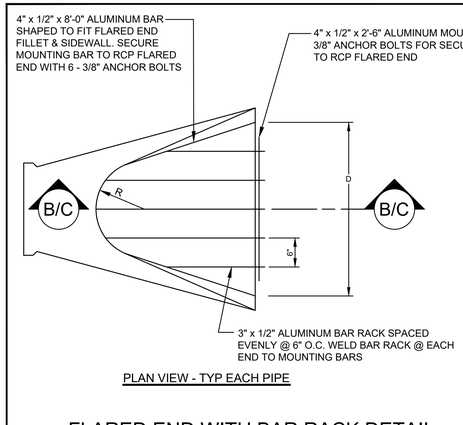


SPACING BETWEEN CHECK DAMS

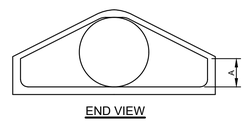
S_D (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15

NOTE:
THIS DETAIL TO BE USED AT ANY AREA WHERE FLOWS CONCENTRATE DURING CONSTRUCTION. THE USE OF STONE CHECK DAMS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL CHECK DAMS SHALL BE REMOVED UPON PERMANENT STABILIZATION OF THE SITE.

(I) STONE CHECK DAM
N.T.S.



DIA.	A	B	C	D	E	R
18"	9"	2'-3"	3'-10"	3'-0"	2½"	12"
24"	9½"	3'-7½"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7¾"	5'-0"	3½"	15"
36"	15"	5'-3"	2'-10¾"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-6"	4½"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"
54"	27"	5'-5"	2'-11"	7'-6"	5½"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"



NOTE:
JOINTS MAY BE FURNISHED WITH EITHER BELL & SPIGOT OR TONGUE & GROOVE ENDS. CULVERT END SECTIONS SHALL CONFORM TO MDOT STANDARD SPECS.

(J) FLARED END WITH BAR RACK DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
06.18.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: EROSION CONTROL DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.5

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1.3.5 EROSION CONTROL MEASURES AND SITE STABILIZATION

THE PRIMARY EMPHASIS OF THE EROSION/SEDIMENTATION CONTROL PLAN, WHICH WILL BE IMPLEMENTED FOR THIS PROJECT, IS AS FOLLOWS:

- DEVELOPMENT OF A CAREFUL CONSTRUCTION SEQUENCE.
- RAPID REVEGETATION OF DENUDED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
- RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID RILL AND GULLY EROSION.
- THE USE OF ON-SITE MEASURES TO CAPTURE SEDIMENT (HAY BALES/ STONE CHECK DAMS/SILT FENCE, ETC.)

THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED WITHIN THIS REPORT. FOR FURTHER REFERENCE, SEE THE LATEST EDITION OF THE MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS.

A. DEWATERING

WATER FROM CONSTRUCTION TRENCH DEWATERING SHALL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 50 FEET OF A PROTECTED NATURAL RESOURCE. DEWATERING DISCHARGE SHALL NOT BE DIRECTED ACROSS ADJACENT PROPERTIES IN A CONCENTRATED MANNER.

B. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION.

(a) **INSPECTION AND CORRECTIVE ACTION**. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

(b) **MAINTENANCE**. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

(c) **DOCUMENTATION**. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO CITY STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

C. TEMPORARY EROSION CONTROL MEASURES

TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED BY THIS REPORT AND AS SHOWN ON THE PLAN SET FOR THE PROJECT. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE OWNER, THE CITY OF PORTLAND, OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.

THE FOLLOWING MEASURES ARE PLANNED AS TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

1. CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO EACH CONSTRUCTION AREA.

2. SILTATION FENCE OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF- BORNE SEDIMENTS UNTIL GRASS AREAS ARE REVEGETATED. THE SILT FENCE AND/OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THIS PACKAGE AND INSPECTED AT LEAST ONCE A WEEK AND BEFORE AND IMMEDIATELY AFTER A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE OR BERM LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. WOOD WASTE COMPOST BERMS ARE NOT TO BE USED ADJACENT TO WETLAND AREAS THAT ARE NOT TO BE DISTURBED.

3. STRAW OR HAY MULCH INCLUDING HYDROSEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND OCTOBER 15TH ON SLOPES OF LESS THEN 15 PERCENT SHALL BE ANCHORED BY APPLYING WATER; MULCH PLACED ON SLOPES OF EQUAL TO OR STEEPER THAN 15 PERCENT SHALL BE COVERED BY A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. FABRIC NETTING AND STAPLES SHALL BE USED ON DISTURBED AREAS WITHIN 50' OF LAKES, STREAMS, AND WETLANDS REGARDLESS OF THE UPSTREAM SLOPE. MULCH PLACED BETWEEN OCTOBER 15TH AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT SHALL BE COVERED WITH A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SLOPES STEEPER THAN 3:1 AND EQUAL TO OR FLATTER THAN 2:1, WHICH ARE TO BE REVEGETATED, SHALL RECEIVE CURLEX BLANKETS BY AMERICAN EXCELSIOR OR EQUAL. SLOPES STEEPER THAN 2:1 SHALL RECEIVE RIPRAP AS NOTED ON THE PLANS. THE MULCH APPLICATION RATE FOR BOTH TEMPORARY AND PERMANENT SEEDING IS 75 LBS PER 1000 SF AS IDENTIFIED IN ATTACHMENT A OF THIS SECTION. MULCH SHALL NOT BE PLACED OVER SNOW.

4. TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:

a) TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN 100 FEET OF ANY WETLANDS WHICH WILL NOT BE DISTURBED AND SHALL BE LOCATED AWAY FROM DRAINAGE SWALES.

b) STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS BY EITHER TEMPORARILY SEEDING THE STOCKPILE BY A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH, SUCH AS HAY, STRAW, OR EROSION CONTROL MIX.

c) STOCKPILES SHALL BE SURROUNDED BY SEDIMENTATION BARRIER AT THE TIME OF FORMATION.

5. ALL DENUDED AREAS THAT ARE WITHIN 100 FEET OF AN UNDISTURBED WETLAND, WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN A BUILDING PAD, PARKING AREA, OR ACCESS DRIVE SUBBASE AREA, SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. IN OTHER AREAS, THE TIME PERIOD MAY BE EXTENDED TO 7 DAYS.

6. FOR WORK, WHICH IS CONDUCTED BETWEEN OCTOBER 15TH AND APRIL 15TH OF ANY CALENDAR YEAR, ALL DENUDED AREAS, SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX, APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 2 DAYS FOR ALL AREAS.

7. MCCAULEY WAY SHALL BE SWEPT TO CONTROL MUD AND DUST AS NECESSARY. ADDITIONAL STONE SHALL BE ADDED TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

8. DURING GRUBBING OPERATIONS STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS AND AS DIRECTED ON THE EROSION CONTROL PLANS.

9. SILT FENCING WITH A MINIMUM STAKE SPACING OF 6 FEET SHALL BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM 14 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHALL BE ANCHORED. A DOUBLE ROW OF SILT FENCE SHALL BE USED ADJACENT TO WETLANDS.

10. WOOD WASTE COMPOST/BARK BERMS MAY BE USED IN LIEU OF SILTATION FENCING. BERMS SHALL BE REMOVED AND SPREAD IN A LAYER NOT TO EXCEED 3" THICK ONCE UPSTREAM AREAS ARE COMPLETED AND A 90% CATCH OF VEGETATION IS ATTAINED.

11. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR APPROVED SEDIMENT BAGS (SUCH AS SILT SACK). INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHALL BE REMOVED AND THE BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE BARRIER. THE BARRIER SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

12. WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MDOT SPECIFICATIONS - SECTION 637 - DUST CONTROL.

13. LOAM AND SEED IS INTENDED TO SERVE, AS THE PRIMARY PERMANENT REVEGETATIVE MEASURE FOR ALL DENUDED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP. APPLICATION RATES ARE PROVIDED IN ATTACHMENT A OF THIS SECTION. SEEDING SHALL NOT OCCUR OVER SNOW.

D. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.) WILL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED. FABRIC NETTING, ANCHORED WITH STAPLES, SHALL BE PLACED OVER THE MULCH IN AREAS AS NOTED IN **TEMPORARY EROSION CONTROL MEASURES** PARAGRAPH 3 OF THIS REPORT. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

2. ALL STORM DRAIN PIPE OUTLETS SHALL HAVE RIPRAP APRONS AT THEIR OUTLET TO PROTECT THE OUTLET AND RECEIVING CHANNEL FROM SCOUR AND DETERIORATION. INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE APRONS SHALL BE INSTALLED AND STABILIZED TO THE EXTENT PRACTICABLE PRIOR TO DIRECTING RUNOFF TO THE TRIBUTARY PIPE OR CULVERT.

1.4 IMPLEMENTATION SCHEDULE

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO ENSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPTIMIZED:

IT IS ANTICIPATED THAT CONSTRUCTION OF BUILDINGS 2-5 AND RELATED INFRASTRUCTURE WILL COMMENCE IN SUMMER OF 2021 AND BE COMPLETED BY SPRING OF 2022.

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE, THIS SHALL BE ACCOMPLISHED BY LIMITING THE DISTURBED AREA.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ACCESS POINTS FROM PAVED ROADWAYS.

2. INSTALL CATCH BASIN INLET PROTECTION, AND PERIMETER SILT FENCE/WOOD WASTE BERMS PRIOR TO GRUBBING RESPECTIVE AREAS.

3. CLEAR AND GRUB AREA TO BE DEVELOPED. INSTALL STONE CHECK DAMS AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.

4. FOUNDATION PREPARATION AREA SHALL BE EXCAVATED FOR INSTALLATION OF THE BUILDING FOOTINGS. BUILDING WORK WILL BE ON GOING THROUGH THE REMAINDER OF THE PROJECT.

5. COMMENCE INSTALLATION OF DRAINAGE APPURTENANCES.

6. COMMENCE CONSTRUCTION OF PERVIOUS PAVER FILTER/RESERVOIR UP TO CHOKER COURSE, FOCAL POINT FILTERS AND DETENTION PONDS.

7. COMMENCE EARTHWORK AND GRADING TO SUBGRADE.

8. COMMENCE INSTALLATION OF UTILITIES.

9. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.

10. COMPLETE INSTALLATION OF UNDERGROUND UTILITIES TO WITHIN 5' OF THE BUILDINGS.

11. INSTALL LIGHT POLE FOUNDATIONS AND LIGHT POLES.

12. COMPLETE REMAINING EARTHWORK OPERATIONS.

13. COMPLETE INSTALLATION OF CATCH BASINS AND APPURTENANCES.

14. INSTALL SUB-BASE AND BASE GRAVEL WITHIN PARKING FIELDS, WALKWAYS, AND ALL DRIVEWAYS.

15. INSTALL BASE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREA AS WELL AS CONCRETE SURFACES.

16. INSTALL CURBING IN PARKING FIELDS, DRIVEWAYS, AND ALONG THE STREETS AS NEEDED.

17. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.

18. INSTALL PERVIOUS PAVERS AND INFILL STONE, SURFACE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREAS. STRIPE PER PLAN.

19. ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

20. TOUCH UP LOAM AND SEED.

NOTE: ALL DENUDED AREAS NOT SUBJECT TO FINAL PAVING, RIPRAP, OR GRAVEL SHALL BE REVEGETATED.

PRIOR TO CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE FOR THE COMPLETION OF THE WORK, WHICH WILL SATISFY THE FOLLOWING CRITERIA:

1. THE ABOVE CONSTRUCTION SEQUENCE SHOULD GENERALLY BE COMPLETED IN THE SPECIFIED ORDER; HOWEVER, SEVERAL SEPARATE ITEMS MAY BE CONSTRUCTED SIMULTANEOUSLY. WORK MUST ALSO BE SCHEDULED OR PHASED TO REDUCE THE EXTENT OF THE EXPOSED AREAS AS SPECIFIED BELOW. THE INTENT OF THIS SEQUENCE IS TO PROVIDE FOR EROSION CONTROL AND TO HAVE STRUCTURAL MEASURES SUCH AS SILT FENCE AND CONSTRUCTION ENTRANCES IN PLACE BEFORE LARGE AREAS OF LAND ARE DENUDED.

2. THE WORK SHALL BE CONDUCTED IN SECTIONS WHICH SHALL:

a) LIMIT THE AMOUNT OF EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 30 DAYS.

b) REVEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT; OR TEMPORARILY STABILIZED WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL FOR AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND AND 7 DAYS FOR ALL OTHER AREAS. AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW.

c) INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEM AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE. THE DITCHES SHALL BE IMMEDIATELY LINED OR REVEGETATED AS SOON AS THEIR INSTALLATION IS COMPLETE.

1.5 EROSION, SEDIMENTATION AND STABILIZATION CONTROL PLAN

THE EROSION CONTROL PLAN IS INCLUDED IN THE PLAN SET.

1.6 DETAILS AND SPECIFICATIONS

THE EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

1.7 WINTER STABILIZATION PLAN

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT; VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT ANY AREA LEFT EXPOSED CAN BE CONTROLLED BY THE CONTRACTOR. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY/PARKING AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR SHALL INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE SHALL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOODWASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

AN AREA SHALL BE CONSIDERED DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%.

MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAT 8%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. **STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS** -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 1, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT SHALL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

INSTALL A STONE LINING IN THE DITCH --THE APPLICANT SHALL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT SHALL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

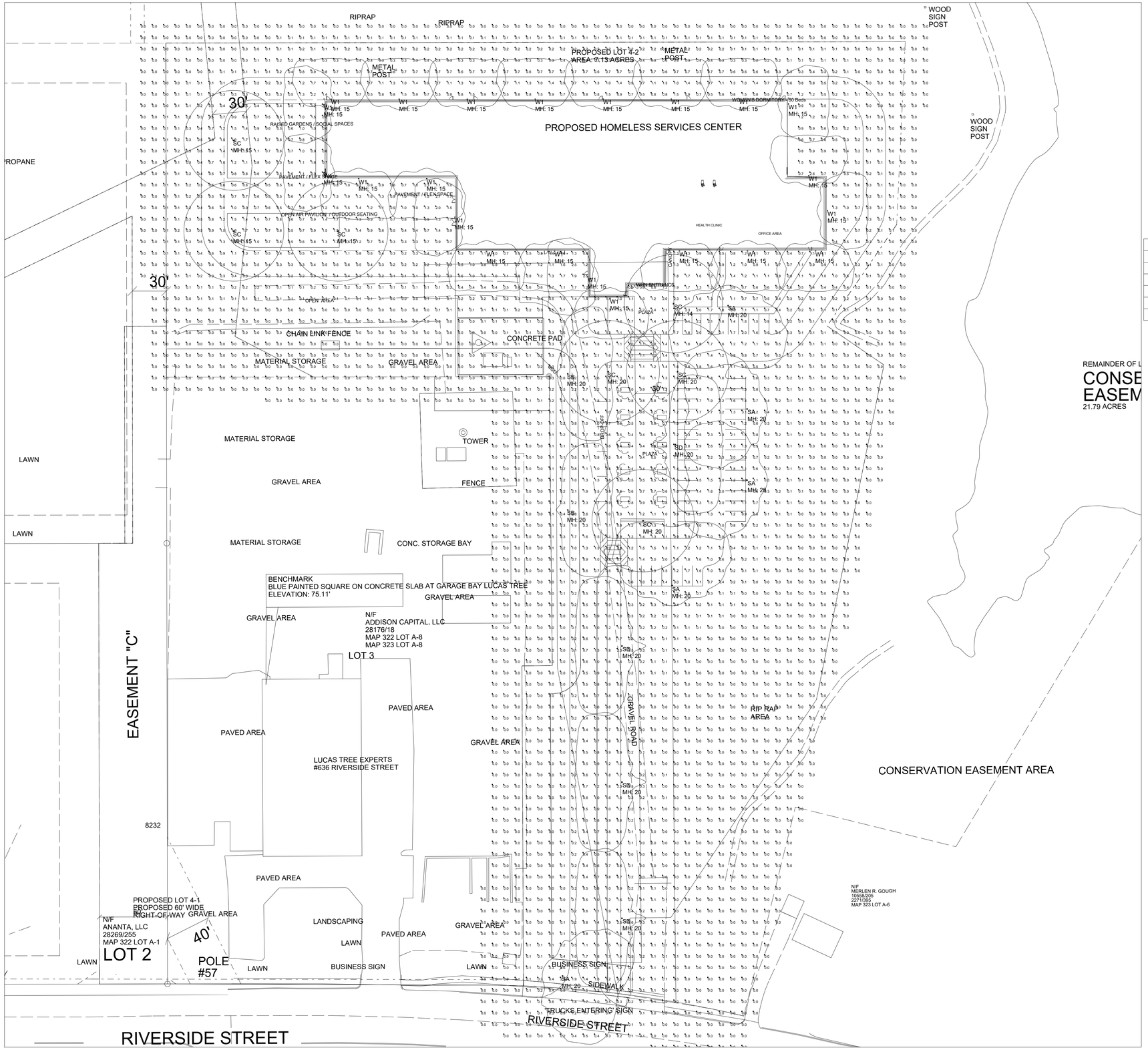
2. **STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES** -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT SHALL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. THE DEPARTMENT SHALL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 1, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

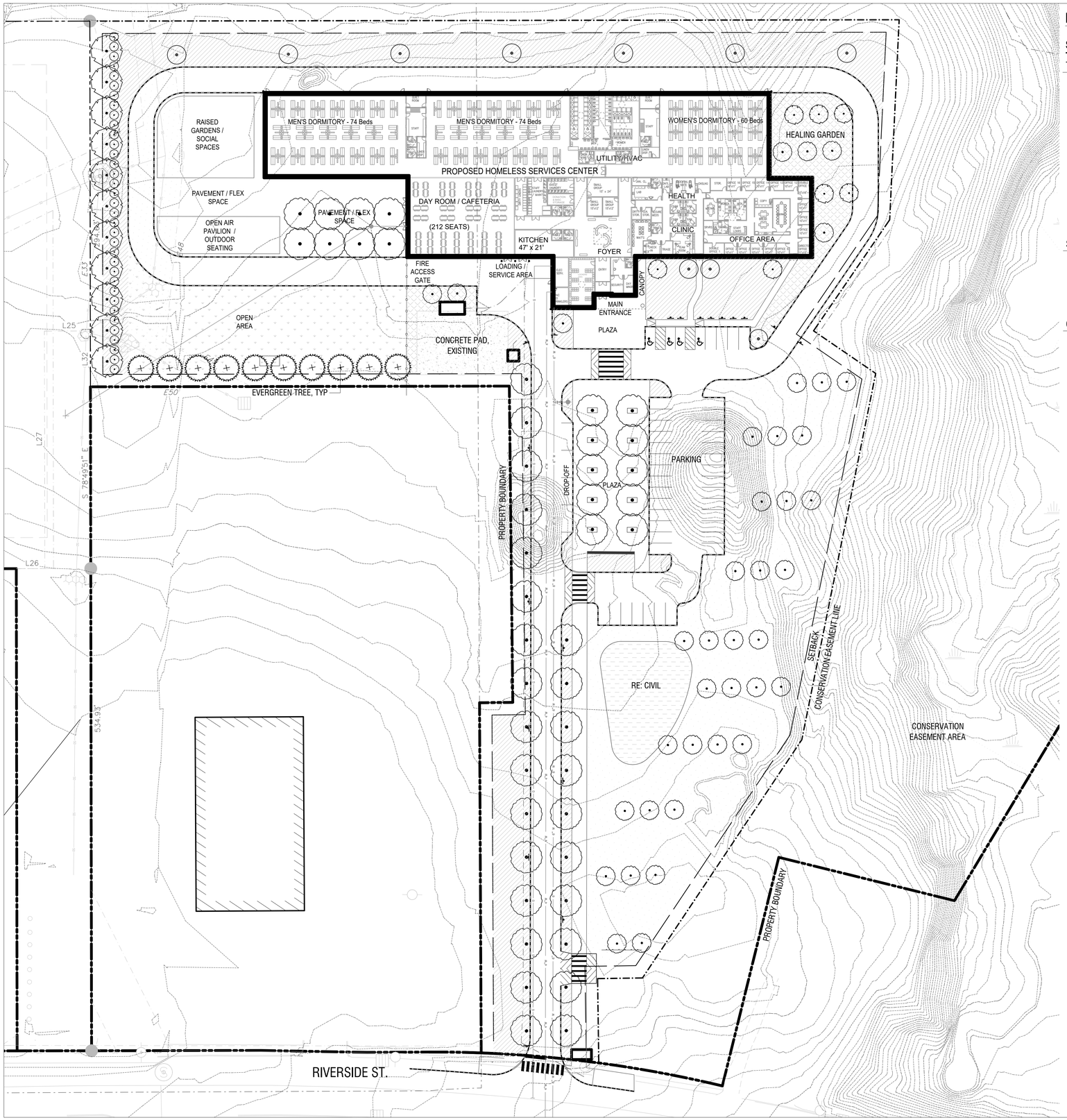
STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY SEPTEMBER 1 THE APPLICANT SHALL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT SHALL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT SHALL COVER THE SLOPE WITH A LAYER OF WOODWASTE COMPOST AS DESCRIBED IN ITEM III OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS STANDARD.

STABILIZE THE SLOPE WITH SOD -- THE APPLICANT SHALL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY SEPTEMBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

STABILIZE THE SLOPE WITH WOODWASTE COMPOST -- THE APPLICANT SHALL PLACE A SIX-INCH LAYER OF WOODWASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOODWASTE COMPOST, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT SHALL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT SHALL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED P


RIPRAP
RIPRAP
WOOD SIGN POST
PROPOSED LOT 4-2
AREA: 7.13 ACRES
METAL POST
METAL POST
30'
W1 MH: 15
WINDOWS FOR MEDICAL TO THIS
RAISED GARDENS / SOCIAL SPACES
PROPOSED HOMELESS SERVICES CENTER
WOOD SIGN POST
SC MH: 15
PROPANE
PAVEMENT / FLEX SPACE
PAVEMENT / FLEX SPACE
OPEN AIR PAVILION / OUTDOOR SEATING
HEALTH CLINIC
OFFICE AREA
SC MH: 15
SC MH: 15
W1 MH: 15
W1 MH: 15
W1



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
SHRUBS						
	CO	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
						PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CA	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

0 20 40 80

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS DATE

ISSUE DATE

JUNE 18, 2021

SHEET TITLE

LANDSCAPE PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION

EASEMENT

PROPOSED SUBURBAN PROPANE LOT 4–1

STORAGE 4,000 SF

OFFICE 7,300 SF

GARAGE 1,100 SF

OFFICE 1,100 SF

RAISED GARDENS / SOCIAL SPACES

PAVEMENT / FLEX SPACE

OPEN AIR PAVILION / OUTDOOR SEATING

PAVEMENT / FLEX SPACE

PROPOSED HOMELESS SERVICES CENTER

MEN'S DORMITORY - 74 Beds

MEN'S DORMITORY - 74 Beds

WOMEN'S DORMITORY - 80 Beds

UTILITY / HVAC

DAY ROOM / CAFETERIA (212 SEATS)

KITCHEN 47' x 21'

FOYER

HEALTH CLINIC

OFFICE AREA

SECURE ACCESS GATE

LOADING / SERVICE AREA

CANOPY

MAIN ENTRANCE

PLAZA

UNDERGROUND SERVICE TO TOWER

EXISTING 5/8" REBAR, FLUSH

PLAZA

DROP-OFF

BENCHMARK
BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE
ELEVATION: 75.11'

N/F
ADDISON CAPITAL, LLC
28176/18
MAP 322 LOT A-8
MAP 323 LOT A-8
LOT 3

EXISTING 5/8" REBAR, BENT

N/F
ANANTA, LLC
28269/255
MAP 322 LOT A-1
LOT 2

#3 PROPOSED 60' WIDE RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14

#4 PROPOSED 40' WIDE AERIAL EASEMENT

#2 PROPOSED DRIVEWAY EASEMENT

#1 PROPOSED SIDEWALK EASEMENT

PROPOSED LOT 4–1 PROPOSED 60' WIDE RIGHT-OF-WAY

60'

EXISTING SIDEWALK EASEMENT TO CITY OF PORTLAND

N 22°18'27" W 23.08'

S 78°39'51" E 4.98'

N 78°49'51" W 5.33'

N 11°10'09" W 19.45'

S 11°10'09" E 7.23'

N 47°34'01" E

12" SAN

RIVERSIDE STREET

PROPOSED SIDEWALK EASEMENT A ±123 S.F.

PROPOSED DRIVEWAY EASEMENT B ±19 S.F.

BENCHMARK
VERTICAL SPIKE SET IN ROOT OF 24" RED OAK
ELEVATION: 72.92'

N/F
MERLEN R. GOUGH
10558/205
2271/395
MAP 323 LOT A-6

N/F
WASTE MANAGEMENT OF MAINE, INC.
10545/154
MAP 324 LOT B-1

ZONING ANALYSIS Relevant Zone(s): IH/IM

Please see attached Table.

All Projects:

	Required		Proposed
Lot Size	-	-	7.01 Acres
Area Per Dwelling Unit	-	-	
Minimum Street Frontage	60'	60'	95.10'
Front Yard Minimum	25'	*	600'+
Front Yard Maximum			
Rear Yard	35'	**	50'
Yard Right			
Yard Left			
Side Street Setback	35'	**	38'
Step Back			
Maximum Lot Coverage			
Minimum Lot Coverage			
Maximum Height	75'	75'	22'
Open Space			
Maximum Impervious Area	85%	75%	49.6%
Pavement Setback	10'	10'	10'
Floor Area Ratio			
Off Street Parking Spaces	15	15	43
Loading Bays			
Other 1			
Other 2			
Other 3			

*1' for each foot of building height.
**1' for each foot of building height up to 25' except 35' when abutting residential zone.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLIPFORM CONCRETE CURB

SIGN LEGEND

STOP R1–1 30"x 30" [A]	RESERVED PARKING R7–8 12"x 18" [B]	RESERVED PARKING VAN ACCESSIBLE R7–8 12"x 18" [C]
NO PARKING R8–3a 24"x 30" [D]	AUTHORIZED VEHICLES ONLY R5–11 30"x 24" [E]	VISITOR PARKING – – [F]

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

1. A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 43 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.

50 0 25 50 100
1 inch = 50 ft.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 06.18.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SITE.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

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207.772.2515

Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. -

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Transportation Demand Management (TDM) Plan

Homeless Services Center
654 Riverside Street – Portland, Maine
Revised August 31, 2021

Introduction

The City of Portland Health & Human Services Department (HHS) provides this Transportation Demand Management (TDM) Plan to supplement the application for the proposed Homeless Services Center (HSC) at 654 Riverside Street. This TDM Plan applies to the proposed site on a 7-acre campus on Riverside Street as well as ancillary HHS services throughout the City. Each facility is described in more detail as follows:

Oxford Street Shelter (Existing)

- Size – 9,634 SF
- 154 Guest Beds

New Homeless Services Center on Riverside Street

- Size (Proposed) – 51,690 SF
- 208 Guest Beds

TDM goals and objectives are aimed to outline strategies for utilizing existing infrastructure in more efficient ways to influence both facility staff as well as Center guests to use the available 15 seat shuttle service, METRO transit, carpools and/or leveraging and expanding existing bike, pedestrian routes and trail opportunities – all with a goal of reducing single occupancy vehicle trips on the surrounding street network. The HHS Department is committed to continuing to progress, refine, and expand its TDM plan over time.

Transportation and Infrastructure Narrative

Site Location:

The proposed 7.0-acre Riverside Street site is located off the peninsula but is located within 0.5 mile[1] of the METRO Route 2 Forest Avenue/Prides Corner Bus Route, likely the main public transit link for the Center. Riverside Street, between Warren Avenue and Forest Avenue, consists primarily of single travel lanes in each direction with a two-way center left turn lane extending nearly its full length. Traffic data for the location includes the following:

- Posted Speed – 35 mph
- Average Annual daily Traffic – 18,300 vpd[2]
- Sight lines in each direction at driveway exceed 500 feet[3]
- Driveway separation – 176 feet4
- Collision data for Riverside Street from Waldron Way to Forest Avenue (nodes 10385 – 16892) yields 14 crashes and Critical Rate Factor (CRF) of 0.785. Riverside Street at the site driveway is not a High Accident Location.

[1] Measure from Forest Ave outbound Transit stop to the proposed door is 2,340 LF or 0.44 mile
[2] MDOT AADT information – Riverside St N/O Warren Avenue
[3] Per section 1.6 of the Technical Manual the measured distance shall be 305 feet for a 35-mph speed limit.
[4] Per Section 1.7.2.7 the minimum separation is 150 feet for a 35-mph speed limit.
[5] From MDOT for period 01/01/2018 to 12/31/2020

- Collision data for the Intersection of Forest Ave and Riverside Street (Node 16892) yields 41 accidents from 01/01/2018 to 12/31/2020. The intersection is considered a high crash location with a CRF of 1.17. The majority of accidents result from vehicles following too close and driver inattention on the Forest/Route 302 inbound leg and on the Riverside northbound leg. Accidents do not appear to be related to pedestrian crosswalk movements.
- Collision data for Forest Avenue from the Riverside Intersection to the Riverton Drive (nodes 16892 to 18508) yields 5 accidents. This location is not identified as a high accident location. Safety measures at the Transit stop crosswalk include a recently installed Rectangular Rapid Flashing Beacon (RRFB) assembly that is push button activated to signal vehicular traffic of crossing pedestrian movements. The project has also committed to wayfinding strategies to include signage and pavement markings to clearly identify the safe walking route for Shelter users from the transit stops to the Shelter.
- Street lighting from the Forest Ave transit stops to the shelter includes a cobra head light over the outbound transit stop and a streetlight on the NW corner of the Riverside intersection. On Riverside Street there are several pole mounted cobra head streetlights. At least four utility poles are available for additional streetlights if necessary to improve lighting over the proposed 6' wide sidewalk on the west side of the street. Additional lighting will be discussed with the City DPW and CMP.
- Nearby Peak hour traffic volumes are summarized as follows:[6]

TABLE 1
TRIP GENERATION

Site	Traffic Count AM Peak Hour (6:30 – 7:30 am)	Traffic Count PM Peak hour (3:45 – 4:45 pm)	ITE[7] AM Peak Trips	ITE PM Peak Trips
Suburban Propane (Orig. Permit Documents)	15	18	23	22
Schnitzer (LUC 140 Manufacturing)	19	3	9	9
Lucas Tree (LUC 180 Specialty Contractor)	9	8	28	33
Seacoast Scaffolding (LUC 811 Construction Equip Rental)	9	6	8	8
Subtotal	**52**	**35**	**68**	**72**
Riverside Peak Hour Thru Traffic Volume (Total Both Directions)	**1,229**	**1,652**		

The site is located 1.25 miles from the Larrabee Road/MTA Interchange and approximately 4 miles from the Forest Avenue/I-295 Interchange. Riverside Street contains a sidewalk on the east side of the street that extends from the site, northerly to Forest Avenue, where sidewalks are located on both sides of that road. A new minimum 6' wide ADA compliant bituminous sidewalk is proposed on the west (site) side of Riverside Street to extend from the site, northerly to match the existing sidewalk/crosswalk at Forest Avenue, approximately 1,250 feet away. This will provide ADA sidewalk connectivity from the site to the full vehicular and push button pedestrian signalization at Forest Avenue and to the nearby inbound and outbound bus stops on Forest Avenue. The new sidewalk will comply with the City construction standards including a stable bituminous surface, cross slope to not exceed 2% and longitudinal slope no greater than 5%. These existing bus stops are located about 325 feet east of the intersection on Forest Avenue. The Forest Ave/Riverside intersection pedestrian signal crossing conditions offer a safe means of walking access to/from the Services Center to the METRO transit stops. The City has recently installed a set of Rectangular Rapid Flashing Beacons (RRFB) for a midblock crosswalk between the inbound/outbound transit stops further improving safety conditions in addition to the existing pedestrian signals at the Forest/Riverside intersection. HHS will be pursuing a robust offsite wayfinding

[6] Counts conducted by Gorrill Palmer Consulting Engineers on 08/09/21 (3:30pm to 6:00pm) and 08/10/21 (6:30am to 9:00am)
[7] Institute of Transportation Engineers "Trip Generation" Manual 10th edition – provided for comparison purposes

signage strategy and plans that will aid with providing clear direction and safety for those seeking the shelter from typical areas both intown and off-peninsula. HHS will also work with City DPW staff to assure that ADA accessibility i.e. ramps at street crossings, lighting and winter sidewalk maintenance along the main pedestrian access routes, including Riverside Street, Forest Avenue and Brighton Avenue is safe along their full length.

Forest Avenue is considered the principal travel link between the Portland Peninsula and the HSC for the following reasons:

- Forest Ave is a primary vehicle arterial within the City;
- The HHS operates the Prevention and Diversion Center at 39 Forest Avenue, which is ideally located to afford convenient access to/from the site for HSC shuttle services, METRO Transit users, walkers and bikers;
- Forest Avenue contains City standard sidewalks on both sides of the road for its full length, thus offering safe walking access from intown to the site. The proposed sidewalk on Riverside Street will complete a linkage for walkers whereby safe street crossing conditions will be available from intown to the site;
- Forest Avenue is a dedicated Bike Route as identified in the City's Technical Manual and mapping shown on the following page. The Forest Avenue Bike Route provides either dedicated bike lanes or "Share the Road" methods along its length along with signage and others measures out to Riverside Street; and
- Forest Avenue is on the METRO transit Route 2 circuit. The circuit originates at the METRO Pulse station on Elm Street with outbound flow to Prides Corner in Westbrook. As evidenced by the Route 2 map and schedule below, access to the outbound and inbound transit is very good with pickups at 20-30 minute intervals spread across stops that are at ¼ mile intervals. There are basically 30 runs from METRO Pulse outbound beginning at 5:45 am and ending at 10:40 pm. The Route 2 alternates hourly service to the Hannaford Street on Riverside and to Prides Corner which does reduce overall service to Westbrook and points west. Saturday service is decreased with 16 outbound runs beginning at 6:20 am and ending at 9:40 pm. Sunday service includes 8 runs from 8:20 am to 3:20 pm.

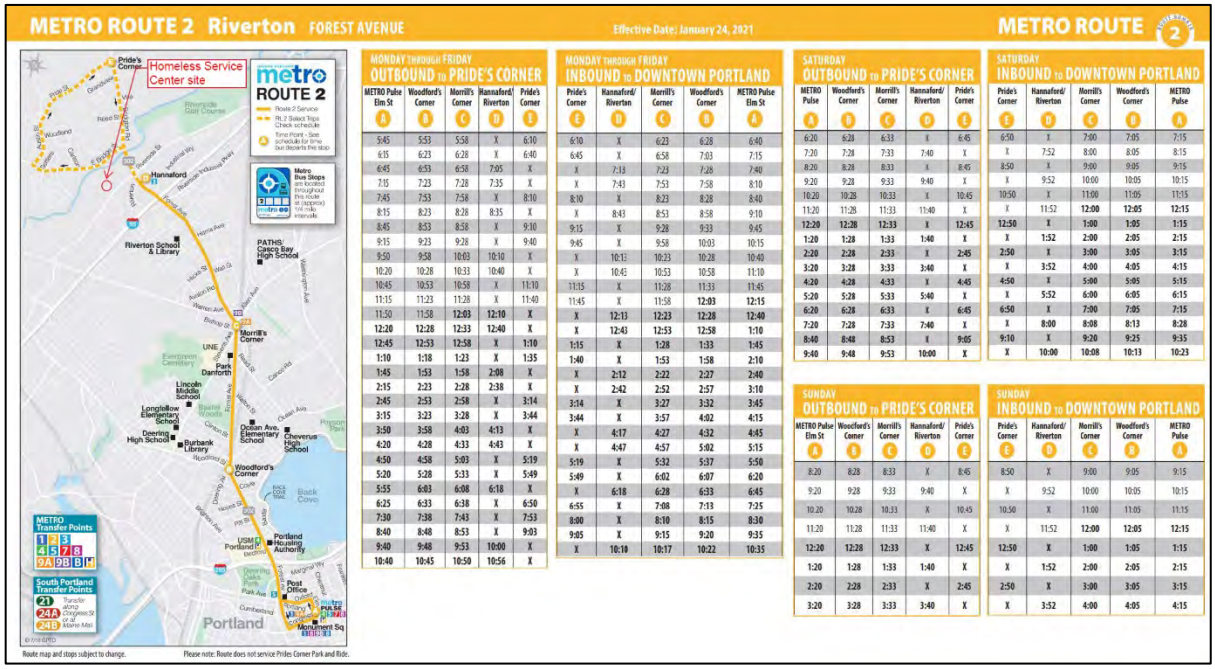


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

The figure on the following page identifies the available Bikeway & Pedestrian networks in the City. The major arterials of Forest Avenue, Brighton Avenue, and Washington Avenue are primary bike routes in the City. The HSC proximity to Forest Avenue provides advantages on this basis. As of August 2021, City DPW Staff have indicated that a bike lane improvement project is also underway for Brighton Avenue. Warren Avenue also supports safe Bike traffic on its striped paved shoulders on each side.

Although not expected to be used to a great extent, the Portland site may benefit from proximity to the Portland Transportation Center with access to the train and Concord Bus service. By being surrounded by direct access to the City's primary vehicle arterial corridors of Riverside Street, Forest Avenue, and Brighton Avenue that contain linkages to the MTA and I-295, it allows access to the site from other areas in the region without requiring vehicles to pass through the more congested downtown peninsula.

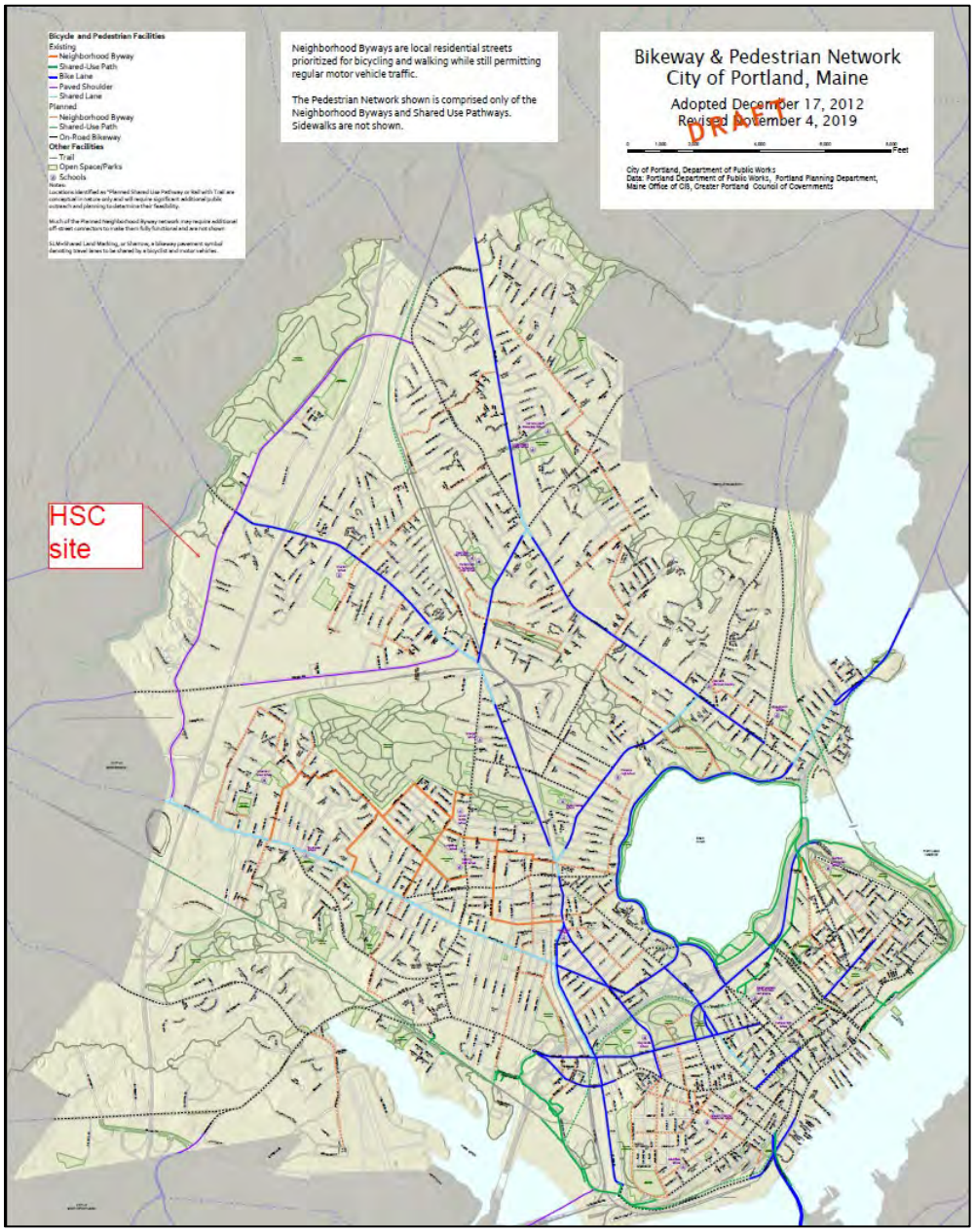


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (*CITY DPW*)

Site Benefits:

In addition to the benefits that the location of the site provides, there are significant positive impacts to traffic and transportation because of the proposed Riverside site. Those positive impacts are as follows:

- ***New Parking Available*** – The proposed site will provide a total of 56 parking spaces. As shown in Table 2 below, while there are as many as 63 positions over the 24 hour staffing period (two basic shifts with some overlapping time periods), they will not all occupy the site at the same time. The remainder of the spaces will be used for drop-offs and other short duration parking, deliveries, guests, and as many as four (4) HHS vehicles that occupy the site full time. The staff travels patterns for accessing the site will be carefully developed and managed to assure parking use efficiency between shifts and during peak traffic periods to minimize the site's impacts to the nearby traffic networks and patterns. This is discussed in greater depth further below. Clearly, most Center Guests will arrive to the site without benefit of a personal vehicle; however, in general, site use will remove vehicle traffic from the peninsula. Greater parking availability onsite will substantially reduce on-peninsula traffic by staff at the existing facilities.

- ***Larger Pool of Employees*** – By creating this new Services Center, many program functions will be consolidated into a central facility, thus, the employee pool will also be consolidated. This will provide a larger group of employees which will increase the opportunities for other benefits such as carpooling.

TDM Coordinator

The TDM Coordinator for the Homeless Services Center is the Shelter Director and that person is charged with administering and coordinating the TDM Plan. As an employee themselves, the Coordinator will have more direct access to the general working environment and other employees, and thus more opportunities to discuss and promote TDM benefits with them.

The TDM Coordinator will be responsible for the following items:

- Coordinate and promote Shuttle Service opportunities and use by Guests.
- Coordinate to/from travel from the On-Peninsula Prevention and Diversion Center at 39 Forest Avenue.
- Coordinate and promote employee and guests rideshare opportunities and incentives.
- Coordinate and promote the use of the following alternatives to single occupant vehicle travel:
  - Providing METRO information and advancing incentives to increase ridership
  - Providing Ride Share/Carpool service information
  - Providing Taxi Vouchers
  - Providing coordination and efficient use of the City HHS vehicle fleet
- Supporting use of bicycling and walking through education and promotion of available amenities and infrastructure in the area, as well as available incentives. This will include safe and secure onsite bicycle storage for Center Guests, staff and visitors.
- Overseeing ongoing monitoring and updating of this TDM plan on a yearly basis.
- Administering and reviewing TDM surveys on a yearly basis.
- Filing annual TDM reports with the City and working with other City staff on strategies for improvement.

Trip and Parking Reduction Targets

There are primarily two contributors to the traffic volumes: visitors/guests and employees/staff. Given the type of facility, a realistic target is not expected to be more than 5% of peak and daily traffic. These are small goals on the vehicle and parking side. More important will be the effectiveness of providing Center Guests continued convenience for shuttle services, METRO access, walking/biking access and travel to/from off campus services. Once the campus is developed and during each annual review period, the reduction targets will be reassessed to ensure that targets and mode reduction assumptions made in the TMP are reasonable, and if not, modifications to this TDM plan will be considered. A target period of 3 years is set and will be re-evaluated as part of the annual reviews.

Current Projected Employee Travel Patterns

A projection of employee shifts, and therefore trips, including in the peak hour, is a useful first step in projecting overall commuter demand and therefore, various TDM strategies. A table of employee patterns is below:

TABLE 2 – HSC TRIP PATTERN

Agency/Position	Number of Anticipated Vehicles	Time-in	Time-out
Shelter Director	1	9:00 AM	5:30 PM
Asst Dir Housing	1	6:30 AM	3:30 PM
Asst Shelter Dir	1	3:00 PM	11:30 PM
Overnight Supervisor	1	6:30 PM	7:30 AM
Daytime Supervisor	1	7:00 AM	4:30 PM
Daytime Security	2	7:00 AM	3:00 PM
Afternoon Security	2	2:30 PM	10:30 PM
Overnight Security	2	10:00 PM	6:00 AM
Daytime Shelter Attendants	6	7:00 AM	8:00 PM
Afternoon Shelter Attendants	4	12:00 PM	8:00 PM
Overnight Shelter Attendants	10	7:00 PM	8:00 AM
Housing Supervisor	1	11:30 AM	7:30 PM
Housing Retention Spec	2	9:00 AM	5:30 PM
Housing Counselors	2	8:00 AM	4:30 PM
Housing Counselors	2	10:00 AM	6:30 PM
Housing Counselors	2	12:00 PM	8:30 PM
Admin Assist	1	9:00 AM	5:30 PM
GPH Clinic Staff - early arrival	7	7:30 AM	4:30 PM
GPH Clinic Staff - late arrival	6	8:30 AM	5:30 PM
Food delivery	1	7:15 AM	7:30 AM
Food delivery	1	11:15 AM	11:30 AM
Food delivery	1	3:30 PM	3:45 PM
Laundry Pickup	1	7:00 AM	7:15 AM
Community Providers	~5	10:00 AM	3:00 PM
Shuttle	~10 per day	Shuttle van will run 24 hrs per day.	

Based on these arrival and departure times, the HSC will manage its peak hour trip generation to avoid overlap with the typical 6:30 – 7:30 AM and 3:30 – 4:30 PM peak hour traffic volumes within the nearby street network. Currently, HSC peak hour AM and PM trips are projected at 22 and 13, respectively.

Trip and Parking Reduction Strategies

The proposed trip and parking reduction strategies have been divided into three categories: infrastructure, incentives, and information. The following summarizes the proposed strategies for each category.

Infrastructure Strategies

Infrastructure strategies primarily include modifications and improvements to the accessibility of modes of transportation other than single occupant vehicles. The following summarizes the proposed infrastructure strategies for the site.

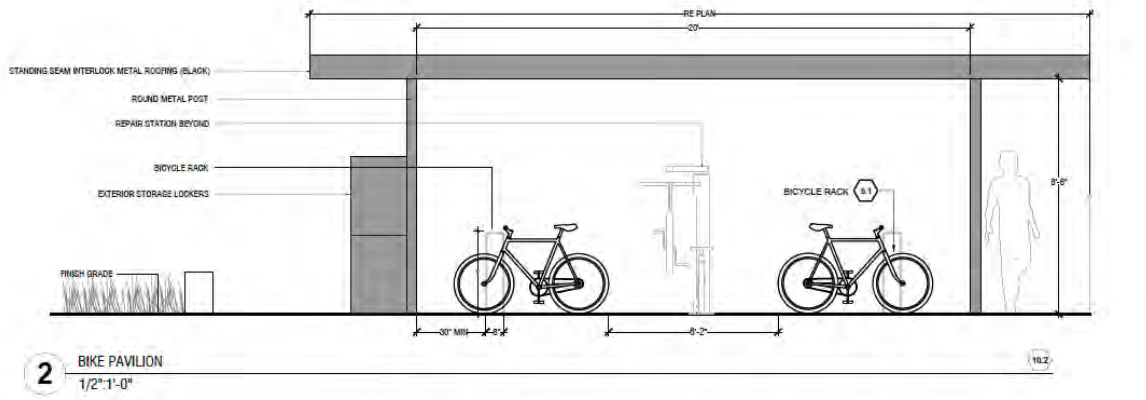
Public Transit Access

METRO does not currently service the site directly. There are multiple inbound and outbound METRO Route 2 transit stops on Forest Avenue, north of the site, with the nearest approximately 0.4 miles away. To promote transit use, the Homeless Services Center is engaged with METRO to develop a program that would provide discounted METRO bus fare for Center Guests and employees. Currently free bus passes are offered to shelter guests. These incentives are in place currently at the Oxford Street Shelter and will continue at the new Services Center. The project will be responsible to construct a new sidewalk on the west side of Riverside Street that will improve walking connectivity to Forest Avenue and to the existing signalized street crossing safety measures already in place at the Riverside/Forest Avenue intersection. Signal improvements will include the implementation of Leading Pedestrian Interval or Blank out signs to prohibit vehicular right turn conflicts with pedestrian crossing movements. Wayfinding signage will be provided at bus stops and along Forest Avenue and Riverside Street to direct Shelter Guests to/ from these transit routes in a safe and efficient manner. HHS will work with the City DPW to assure pedestrian signals are routinely maintained and in safe working order. A new bus shelter[8] is proposed for the Inbound transit stop at the Riverton Drive location.

Pedestrian and Bicycle Access

The TDM Coordinator will work to promote pedestrian walking paths, safe sidewalk use, bicycle routes and the use of on-site bicycle racks to increase the number of bicyclists both as staff and guests to the facility. It is recommended that bicycle parking be provided in key locations around the site and monitored by the TDM Coordinator, who will identify if additional bicycle parking/security/amenities are warranted. Shower and locker facilities are also provided to encourage bicycle use and for those who arrive at the facility using these forms of transportation. At least 40 spaces for bike parking will be provided in an outdoor bike pavilion as detailed as follows:

[8] Per city staff a private fuel station development on Forest Ave is responsible to install the new bus shelter.



The development activity will result in the construction of a new 6' wide City standard paved sidewalk from the Forest Avenue intersection to the site entrance as well as 12' wide paved entry sidewalk into the site. Pedestrian Signal improvements at the Forest Ave/Riverside intersection will be performed for safety and coordination with the existing traffic signals. A restriction on right turns off Forest Ave onto Riverside will be implemented during crossing phases to minimize conflicts with vehicles and pedestrians.

The operators will prioritize the availability of information to guests to include bicycle and walking information. Equipment will be made available to guests to include reflective material for clothing, bicycles and carts. The operator will consider partnership opportunities with support organizations for such things as bike repair training.

Incentives

Incentives can be used to encourage employees and visitors to reduce trip generation and parking demand. These incentives are different depending on the specific use and need to cater to the various needs and desires of contributing users to the site. In this specific case, most vehicular users include the employees/staff, programming personnel, partnering agencies and visitors.

Employee Incentives

Employer incentives to actively encourage use of alternative modes of transportation through employee orientation, on-going communications, and intranet reminders will include:

- Designate preferential parking or equivalent perks for ride shares of two or more persons; At least 2 spaces closest to the building will be designated for ride share parking; The TDM Coordinator will query staff participants for other possible perks that may interest them that might include gift certificates or similar rewards for promoting and participating in the TDM;
- Implement a ride share registry to match employees interested in ride share;
- Employees are encouraged to bike or walk as part of the City's Wellness Program that offers discounts as part of the health coverage benefits package; and
- Continued participation in the annual Commuter Challenge events.

The Homeless Services Center commits to tasking the TDM Coordinator with educating employees and guests about the incentives listed above and helping them facilitate participation in these programs and benefits. The annual report will provide suggested follow up action items and modifications.

Visitor Incentives

Visitor incentives are more challenging for the Center, which does not lend itself to conventional visitor incentives. The Homeless Services Center intends to provide information on their website that describes the potential options for guests and visitors such as transit, bicycling and walking. We would expect the incentives for guests/visitors to be improved once the site is consolidated and receipt of the first few guest/visitor surveys are processed. Please see the following section for more information.

Education, Information, & Marketing

A bulletin board within the lobby or at the support assistant's desk will post shuttle services, transit and taxi resources, rideshare opportunities, bicycle and pedestrian information, and any promotions that are beneficial to not only promoting vehicle trip reduction but providing safe and convenient access to the site for all users. This bulletin board will also be used to post educational information regarding the benefits of alternative transportation, as well as periodic recognition of employees who contribute to meeting TDM goals. The TDM Coordinator will promote and educate on the following:

- Provide information and resources which will include employee commute incentive suggestions, where transit resources are posted on the site and other relevant information. The information may be provided on intranet and include alternate commute options, Shuttle services, METRO information, and walking/ biking resources.
- Encourage rideshare groups, lists and use intranet to inform employees about carpooling options.
- Communicating with staff and guests by acknowledging the challenges associated with TDM goals and objectives that may include lack of access for walking, biking, equipment, ample opportunity for access to transit or other aspects that just make it difficult for guests or staff to participate in TDM strategies. Understanding participant's views and challenges will help inform future modification and improvement to the TDM plan and this will be prioritized as part of the annual reporting.
- Communicating with other City Departments and staff about TDM measures and what is working or not working for them; including participation in a City employee Transportation Management Association if one is in place or planned.

Monitoring and Reporting Plan

As part of the TDM Plan monitoring program, the TDM Coordinator will be responsible for overseeing the assessment of the TDM Plan use of its various operational components. The monitoring will be through surveys, direct observation, and interaction with employees/staff, guests, and visitors. The following summarizes the components of the monitoring and reporting plan.

Employee Surveys

Six months after opening and annually thereafter, the employees will be surveyed regarding their transportation choices such as automobile/bicycle/motorcycle-scooter ownership, parking demand, and the frequency of trips

using bicycling, walking, car Share, carpool/vanpool, drive alone, and the bus. The survey will be updated periodically by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus);
- Preferences or barriers to use of the modes of travel; and
- The flexibility and receptivity of employees to utilizing various travel modes (and to ascertain whether individual employees make use of multiple modes during a given year or season).

Various questions will be created in the survey to determine which measures to encourage increased use of transit, walking, cycling, and carpooling are most effective.

Guest/Visitor Surveys

For guests/visitors to the site, surveys will also be conducted to gather the following information:

- Mode of travel to and from the Center (car/biking/walking/bus)
- Preferences or concerns with modes of travel, availability, safety etc.
- Barriers to using alternative modes of transportation
- The flexibility and receptivity of guests/visitors to utilizing various travel modes to access the site

All guests/visitor surveys will need to be simple and convenient. Various questions will be created in the survey to determine measures to encourage increased use of transit. The TDM Coordinator will work with City staff to determine what kinds of incentives elicit consistent and engaged participation in these surveys. The TDM Coordinator will document, track, and summarize the information collected from visitor surveys in the annual report.

Traffic Volume Monitoring

The applicant shall conduct a traffic monitoring study at six months post-occupancy and again at 12 months post-occupancy of the Services Center. The study shall provide documentation on traffic volumes entering and exiting the site during the weekday AM and PM peak hours of adjacent street traffic at both entrances and observations of pedestrian movements along the frontage of the site.

Reporting

The TDM Plan will be updated on an annual basis and submitted to the City's TDM Manager for review along with an annual summary report. The report will include information from the employee, guests and visitor surveys such as:

- Number of people walking to the site
- Number of people bicycling to the site
- Number of people using transit
- Carpooling usage
- Parking utilization
- Summary of success in TDM reduction targets and maintaining safe, convenient access to the site

The TDM Coordinator will need to discuss future options for additional TDM strategies as they become available with the City.

SITE DEVELOPMENT PLANS

FOR

Homeless Services Center

654 RIVERSIDE STREET, PORTLAND, MAINE

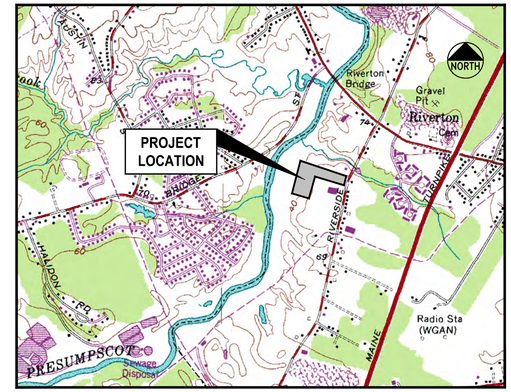
AUGUST 2021

PERMIT DOCUMENTS

TAX MAP-BLOCK-LOT NUMBER:
MAP 322 LOT A-10, MAP 323 LOTS A-3 & A-5

CURRENT LAND OWNER:
CITY OF PORTLAND
PORTLAND, ME. 04101
DEED DATED MAY 18, 2010 / RECORDED AT CCRD IN
BOOK 27825 / PAGE 68

DEVELOPER / CO-APPLICANT:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME. 04101
CONTACT: KEVIN BUNKER
207.772.7673
bunker.kevin@gmail.com



LOCATION MAP
N.T.S.

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*NOT INCLUDED IN THIS SUBMISSION

UTILITIES

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.761.8310
CONTACT: ROBERT BARTELS
rbartels@pwd.org

SEWER:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8840
CONTACT: KEITH GRAY / BRAD ROLAND

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: PATRICK MORRISON

NATURAL GAS:
NORTHERN UTILITIES / UNITIL
1075 FOREST AVENUE
PORTLAND, MAINE 04103
207.797.8002, EXT. 6220
CONTACT: SCOTT CARPENTER
207.650.6716

CABLE TV:
TIME WARNER CABLE / SPECTRUM
115 JOHNSON ROAD
PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
DIAL 811 (AT LEAST 72 HRS IN ADVANCE)

PERMITS / APPROVALS

TYPE:	GOVERNING BODY:	STATUS/DATE ISSUED:
LOCAL		
MAJOR SITE PLAN APPROVAL:	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8608 CONTACT: MATT GROOMS	MAJOR SITE PLAN APPLICATION JUNE 18, 2021 RESUBMISSION AUGUST 31, 2021
BUILDING PERMIT:	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8900	BY OWNER/ARCHITECT
UTILITY OPENING PERMITS:	CITY OF PORTLAND PUBLIC SERVICES DIVISION 212 CANCO ROAD PORTLAND, ME 04103	BY CONTRACTOR

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

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CONSTRUCTION MANAGER:
Cianbro
60 CASSIDY DRIVE
PORTLAND, MAINE 04102
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CONTACT: TOM FIGURA

ENVIRONMENTAL:
Woodard & Curran, Inc.
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
207.774.2112
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NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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207.772.2515

Drawing Name: COVER SHEET
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.0

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\2 - CAD\DWG\382401-COVER.dwg - 8/31/2021 2:14 PM

GENERAL NOTES:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT MANUAL FOR CONSTRUCTION SPECIFICATIONS AND BIDDING PROCEDURES.
2. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCE, PAVING, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS. ENTRANCES IN MOST LOCATIONS REQUIRE STRUCTURAL SLABS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR INFORMATION ON THE STRUCTURAL SLAB ENTRANCES.
4. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSIONS AND THE FINAL SERVICE CONNECTIONS.
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE APPLICANT AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR THE CITY, AT NO ADDITIONAL COST TO THE OWNER.
7. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
8. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE PROJECT SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SHALL APPLY AT NO EXTRA COST TO THE OWNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS THROUGHOUT THE PROJECT AND PROVIDING THE OWNER WITH A SET OF THE FINAL RECORD DRAWINGS WHEN THE PROJECT IS COMPLETE.
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH OUT THE LIFE OF THE PROJECT.

SITE LAYOUT NOTES:

1. ALL HANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS.
2. BITUMINOUS CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.01, 703.07, AND 609.04.
3. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.
4. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.
5. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.
6. STRIPE PARKING AREAS, DRIVES AND ROADWAY AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, CROSSWALKS, HANDICAP SYMBOLS, PAINTED ISLANDS AND FIRE LANES. (ALL MARKINGS EXCEPT MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT.) ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE 'F'. MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT.
7. SEE DETAILS FOR PARKING STALL DIMENSIONS, HANDICAP SYMBOLS, SIGNS AND SIGN POSTS.
8. STOP BARS SHALL BE 12" WIDE.
9. PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES @ 3'-0" O.C. BORDERED BY 4" WIDE LINES.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS.
2. PROVIDE TURF REINFORCEMENT IN AREAS INDICATED ON THE PLANS.
3. AN "AS-BUILT" CERTIFICATION OF THE STORMWATER DRAINAGE SYSTEM BY A REGISTERED ENGINEER IS REQUIRED PRIOR TO THE OWNER ACCEPTING THE BUILDING AND PROPERTY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ANY DEVIATION FROM THE PLANS MAY DELAY THE ACCEPTANCE OF THE PROJECT.
4. A DETAILED O&M MANUAL FOR STORMWATER MANAGEMENT SYSTEMS IS (WILL BE) FILED WITH THE CITY OF PORTLAND DURING THE PERMIT REVIEW PROCESS. A SPECIFIC MANUAL HAS BEEN PREPARED FOR O&M OF THE DRAINAGE SYSTEM.
5. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
6. SEE GRADING, DRAINAGE AND EROSION/SEDIMENT CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
7. ALL DISTURBED AREAS NOT TO BE PAVED, SODDED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
8. COMPACTION REQUIREMENTS:

LOCATION	MINIMUM COMPACTION
SUBBASE AND BASE GRAVEL BELOW PAVED OR CONCRETE AREAS	95%
SUBGRADE FILL BELOW PAVED AREAS	90%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
STRUCTURAL FILL WITHIN PROPOSED BUILDING AREA	95%
SELECT FILL ADJACENT BUILDING FOUNDATIONS, EXTERIOR FOUNDATIONS, AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE	95%

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557.

9. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
10. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND EXIT RAMPS ADJACENT TO THE BUILDING AND ALONG NEW CURBED AREAS. ALL ADA COMPLIANT PARKING SPACES SHALL BE PAVED WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
11. PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH THE FINAL GEOTECHNICAL RECOMMENDATIONS.
12. NATIVE SOILS :
13. FIVE (5.0) FEET OF CLEAN GRANULAR SOIL MEETING THE SELECT FILL GRADATION SPECIFICATIONS SHALL BE PROVIDED BELOW THE ENTRANCE SLABS AND ADJACENT SIDEWALKS. GRADUAL TRANSITION (3 HORIZONTAL TO 1 VERTICAL) OF SELECT FILL THICKNESS SHALL BE PROVIDED FROM THE 5.0 FOOT DEPTH TO THE GRAVEL BASE THICKNESS AT THE SIDEWALKS AND PAVED AREAS AWAY FROM THE BUILDINGS.

UTILITY NOTES:

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE SITE WORK CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. ACTUAL UTILITY INSTALLATION SHALL BE BY THE MEP CONTRACTOR. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE GENERAL CONTRACTOR.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH CONSOLIDATED COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. ALL SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE MAINE STATE PLUMBING CODE AND CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER.
5. COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY. ALL UTILITY WORK SHALL CONFORM TO THE STANDARDS OF THE UTILITY COMPANY AND PROJECT SPECIFICATIONS. IN CASE OF CONFLICT, THE MORE STRINGENT STANDARDS SHALL APPLY.
6. THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY.
7. UNDERGROUND ELECTRICAL, CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO UTILITY COMPANY STANDARDS AND PROJECT SPECIFICATIONS, WHICH EVER IS MORE STRINGENT.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
10. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
12. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
13. THE CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION AND PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.

LANDSCAPE NOTES:

(SUBJECT TO COORDINATION WITH LANDSCAPE DRAWINGS. IN CASE OF CONFLICT, THE LANDSCAPING DRAWINGS SHALL GOVERN.)

1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNERS REPRESENTATIVE BEFORE AND AFTER PLANTING.
2. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSPECTION AND ACCEPTANCE, AND SHALL HAVE AT LEAST 80% HEALTHY GROWTH AT THE END OF THE GUARANTEED PERIOD.
3. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED, FERTILIZER, AND MULCH.
4. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS USED IN A CURBED ISLAND, THE BARK SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 4" LOAM, SEED, FERTILIZER AND MULCH.
5. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING AS SHOWN.
6. PARKING AREA PLANTED ISLANDS TO HAVE A MINIMUM OF 4" TOPSOIL. REMOVE ALL CONSTRUCTION DEBRIS BEFORE TOPSOILING. TOPSOIL SHALL BE PLACED TO TOP OF CURB.
7. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER OR THE OWNERS REPRESENTATIVE PRIOR TO ARRIVAL ON THE SITE.
8. PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
9. THE CONTRACTOR SHALL LOCATE, VERIFY, AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTINGS AND UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
10. NO SUBSTITUTION OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
12. SEE PLANTING DETAILS FOR WEED BARRIER INFORMATION.
13. ALL PLANTING LOCATED AT THE ENTRANCE TO THE PROJECT OR AT INTERSECTIONS WITHIN THE SITE WILL BE MAINTAINED AND WILL NOT EXCEED 3 FEET IN HEIGHT WITHIN A TRIANGLE FORMED 25' INTO THE DRIVEWAY AND 25' ALONG THE TRAVEL WAY.

EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES. CLEARING AND GRADING LIMITS SHALL BE STAKED BY THE CONTRACTOR BASED ON THE LIMITS OF GRADING SHOWN ON THE DRAWINGS AND ACCEPTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. AFTER THE CLEARING AND GRADING LIMITS HAVE BEEN ACCEPTED, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE CONSTRUCTION ENTRANCES ASSOCIATED WITH THE PROJECT.
2. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE. TEMPORARY/PERMANENT SEED MIXTURES SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL PROJECT PREPARED FOR THIS PROJECT.
3. PRIOR TO PAVING, THE CONTRACTOR SHALL FLUSH SILT FROM ALL STORM LINES.
4. ALL STORM DRAIN INLETS AND OUTLETS NOT IN PAVED AREAS ARE TO RECEIVE RIPRAP PROTECTION APRONS DURING CONSTRUCTION.
5. SILT FENCES SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
6. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCE AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD, SWEEPING OF THE ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR.
7. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO TOPSOIL FOR USE IN LANDSCAPING OPERATIONS.
8. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.
9. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION / SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES AS ENFORCED BY THE MEDEP OR LOCAL AGENCIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.
10. A FULL EROSION/SEDIMENTATION CONTROL PLAN ACCOMPANIES THIS DRAWING SET AND IS ALSO CONTAINED IN THE SITE WORK SPECIFICATIONS.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
12. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS $\frac{1}{3}$ THE STRUCTURE HEIGHT.
13. INSTALL CURLEX EROSION CONTROL MAT OR EQUAL ON ALL SLOPES STEEPER THAN 3:1.
14. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION & SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, CUMBERLAND COUNTY SOIL AND WATER CONVERSATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991"

LEGEND

EXISTING	PROPOSED
ZONING LINE	
EXISTING STRUCTURE	BUILDING
EDGE OF TRAVEL WAY, PAVEMENT, ROADS, DRIVES	PROPERTY LINE
CURBING	RETAINING WALL
PROPERTY LINE	CURBING
EASEMENT LINE	VERTICAL GRANITE*
OHE —OHW— OVERHEAD ELECTRIC LINES / OVERHEAD WIRES	SLOPED GRANITE*
UNDERGROUND ELECTRIC LINE	EDGE OF PAVEMENT
UGE	GRADING CONTOUR LINE (100)
UNDERGROUND TELEPHONE LINE	SPOT ELEVATION (100.31)
UGT	GUARD POST/BOLLARD
WATER LINE	POLE WITH LIGHT FIXTURE(S)
WATER GATE VALVE	FREESTANDING SIGN
STORM DRAIN LINE	
SANITARY SEWER LINE	BARRIER FREE PARKING SYMBOL
ROADWAY PAVEMENT STRIPING	PEDESTRIAN CROSSWALK
GAS	DIRECTION OF TRAFFIC FLOW
FENCE	UNDERGROUND TELEPHONE / CABLE (UGT/C)
EXISTING CONTOUR LINE	UNDERGROUND ELECTRIC/TELEPHONE (UGE/T)
EXISTING WETLANDS	WATER LINE (W)
UTILITY POLE	SEWER LINE (SAN1)
SIGN	GAS LINE (G)
LIGHT POLE	STORM DRAIN LINE (SD1)
CATCH BASIN	HYDRANT
SEWER MANHOLE	WATER GATE VALVE
ELECTRICAL/COMMUNICATIONS VAULT	WATER SHUT OFF VALVE
ELECTRICAL/COMMUNICATIONS PULL BOX	MANHOLE
HYDRANT	CATCH BASIN
	EXISTING CATCH BASIN TO BE ALTERED
TREES, LANDSCAPING	RIPRAP
	SILT FENCE (SF)
TREELINE / EDGE OF BRUSH	CHAIN LINK OR SAFETY FENCE
TELEPHONE MANHOLE	WOOD FENCE
ELECTRICAL MANHOLE	GUIDE RAIL
TEST BORING	LIMIT OF WORK
	STONE SEDIMENT BARRIER
WETLANDS	TRANSFORMER PAD
	TREE TO BE REMOVED

*OWNER RESERVES THE RIGHT TO MODIFY ALL ONSITE CURBING TO SLIPFORM CONCRETE

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — No. 7429 — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-COVER.dwg		

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207.772.2515

Drawing Name: GENERAL NOTES & LEGEND

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-1.1

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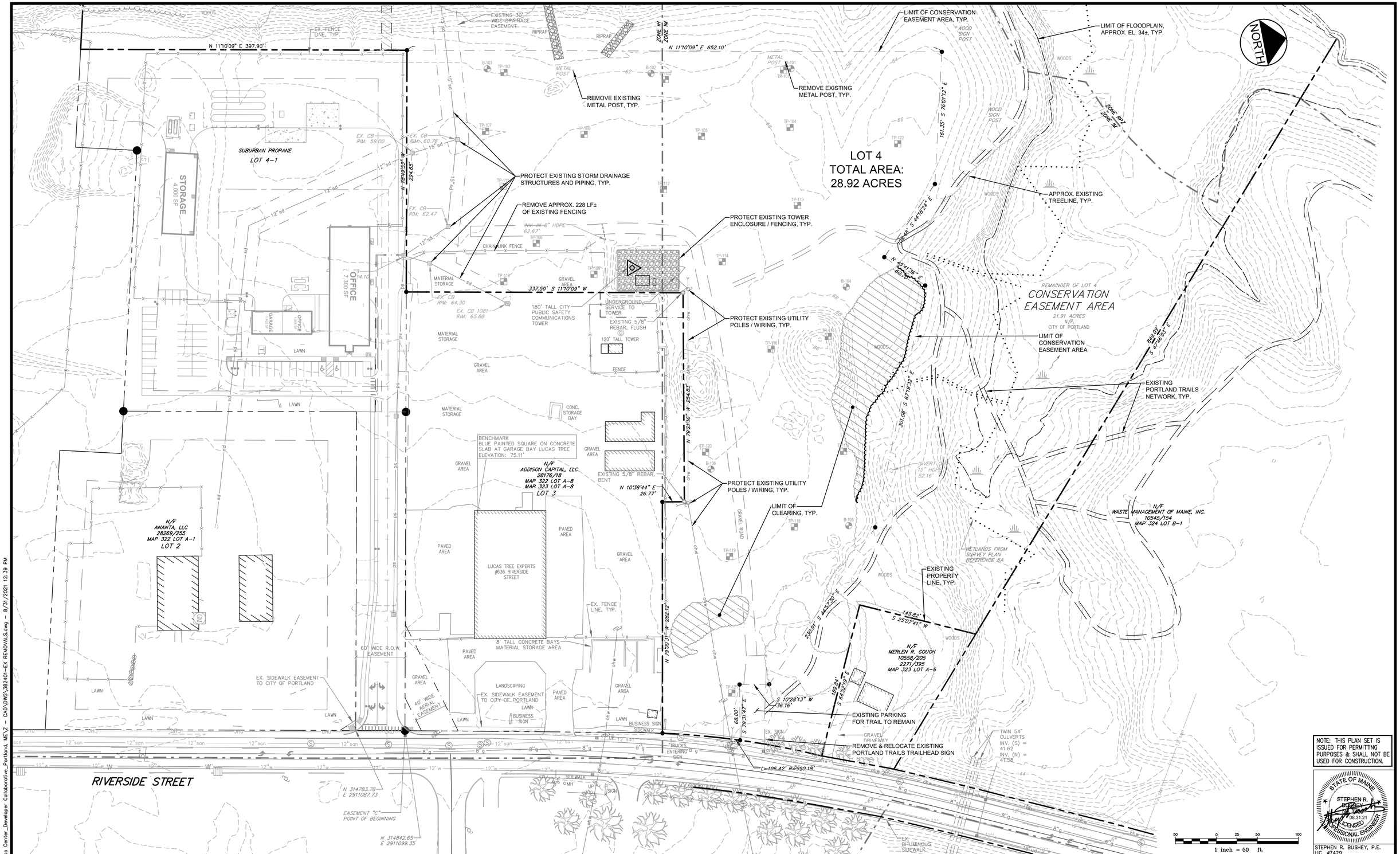

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STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
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File Name: 382401-EX REMOVALS.dwg		

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Drawing Name: EXISTING CONDITIONS & REMOVALS PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-2.0

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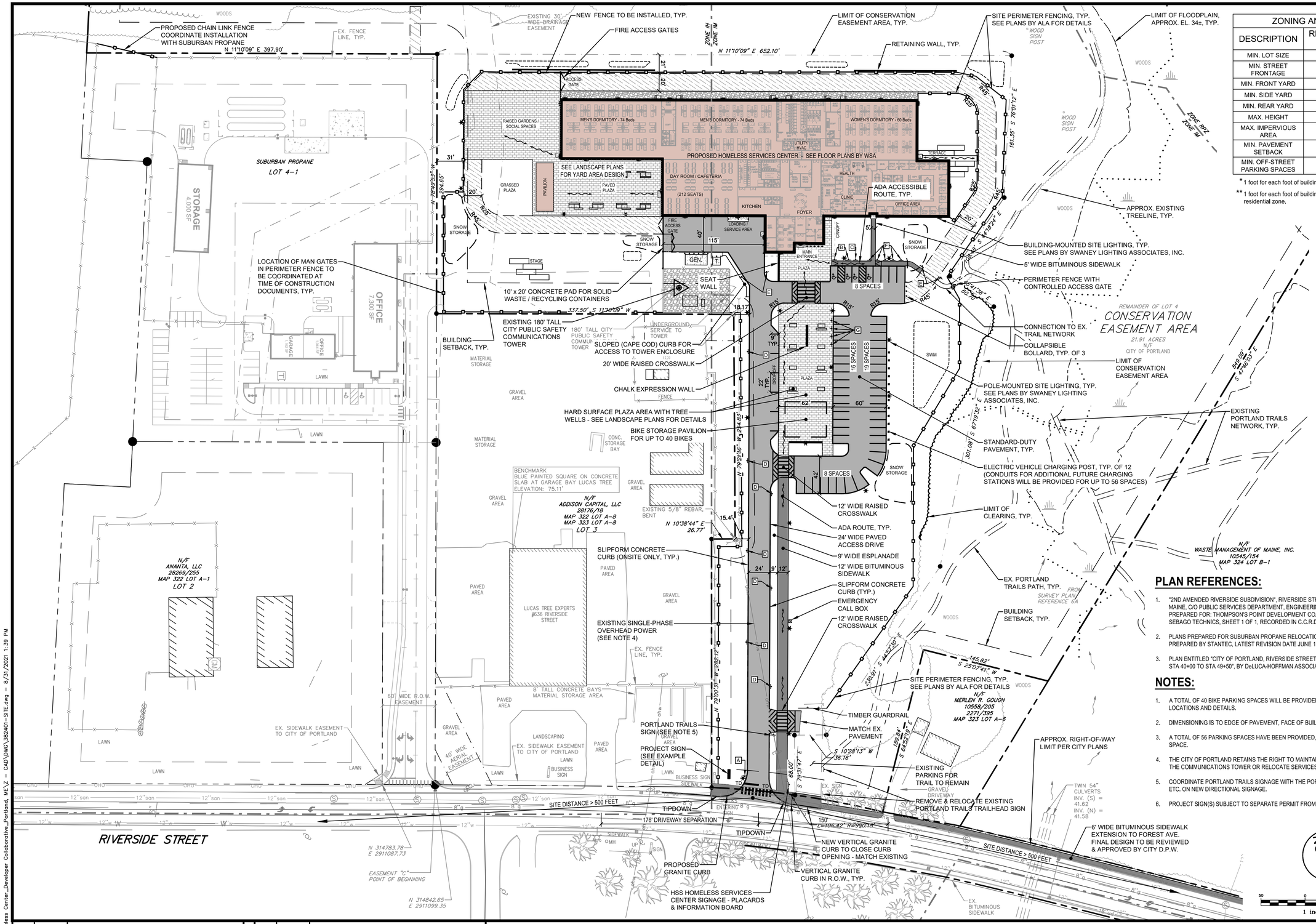

ZONING ANALYSIS - SPACE & BULK TABLE

DESCRIPTION	REQUIRED - IH ZONE	REQUIRED - IM ZONE	PROPOSED
MIN. LOT SIZE	NONE	NONE	28.92 ACRES
MIN. STREET FRONTAGE	60 Ft	60 Ft	196.42 Ft
MIN. FRONT YARD	25 Ft	22 Ft *	600 Ft +
MIN. SIDE YARD	35 Ft	22 Ft **	77 Ft
MIN. REAR YARD	35 Ft	22 Ft **	450 Ft +
MAX. HEIGHT	75 Ft	75 Ft	22 Ft
MAX. IMPERVIOUS AREA	85%	75%	11%
MIN. PAVEMENT SETBACK	10 Ft	10 Ft	15.4 Ft
MIN. OFF-STREET PARKING SPACES	15	15	51

* 1 foot for each foot of building height.

** 1 foot for each foot of building height up to 25 feet, except 35 feet when abutting a residential zone.

SURFACE LEGEND

- STANDARD-DUTY BIT. PAVEMENT
- BIT. SIDEWALK
- REINFORCED CONCRETE
- PLAZA AREA / HARDSCAPE - POROUS PAVER MATERIALS T.B.D.
- CRUSHED STONE AREA
- REINFORCED TURF AREA GRASSPAVE™ OR EQUAL

CURBING LEGEND

- VERTICAL CURB
- SLOPED (CAPE COD) CURB

SIGN LEGEND

STOP R1-1 30"x 30" A	R7-8 12"x 18" B	RESERVED PARKING R7-8 12"x 18" C	RESERVED PARKING VAN ACCESSIBLE R7-8 12"x 18" C	NO PARKING R8-3o 24"x 30" D
AUTHORIZED VEHICLES ONLY R5-11 30"x 24" E	VISITOR PARKING – – F	RIDE SHARE PARKING – – G		

PLAN REFERENCES:

1. "2ND AMENDED RIVERSIDE SUBDIVISION", RIVERSIDE STREET, PORTLAND, FOR RECORD OWNER: THE CITY OF PORTLAND, MAINE, C/O PUBLIC SERVICES DEPARTMENT, ENGINEERING SECTION, 389 CONGRESS STREET, PORTLAND, MAINE 04101, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., 501 DANFORTH STREET, PORTLAND, MAINE 04102, BY SEBAGO TECHNICS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 199.
2. PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.
3. PLAN ENTITLED "CITY OF PORTLAND, RIVERSIDE STREET SEWER CONSTRUCTION, PLAN & PROFILE - RIVERSIDE STREET, STA 40+00 TO STA 49+50", BY DeLUCA-HOFFMAN ASSOCIATES, INC., SHEET NO. 5, RECORD DRAWINGS DATED 6 / 01 / 01.

NOTES:

1. A TOTAL OF 40 BIKE PARKING SPACES WILL BE PROVIDED IN THE BIKE STORAGE PAVILION. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
2. DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
3. A TOTAL OF 56 PARKING SPACES HAVE BEEN PROVIDED, INCLUDING 4 ADA ACCESSIBLE SPACES AND 1 VAN ACCESSIBLE SPACE.
4. THE CITY OF PORTLAND RETAINS THE RIGHT TO MAINTAIN THE SINGLE PHASE POWER & COMMUNICATIONS SERVICES TO THE COMMUNICATIONS TOWER OR RELOCATE SERVICES UNDERGROUND.
5. COORDINATE PORTLAND TRAILS SIGNAGE WITH THE PORTLAND TRAILS OFFICE SO AS TO INCLUDE THE PROPER LOGO, ETC. ON NEW DIRECTIONAL SIGNAGE.
6. PROJECT SIGN(S) SUBJECT TO SEPARATE PERMIT FROM CODES & INSPECTIONS DIVISION.

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STATE OF MAINE — STEPHEN R. BUSHEY — No. 7429 — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE.dwg		

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Drawing Name: SITE LAYOUT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-3.0

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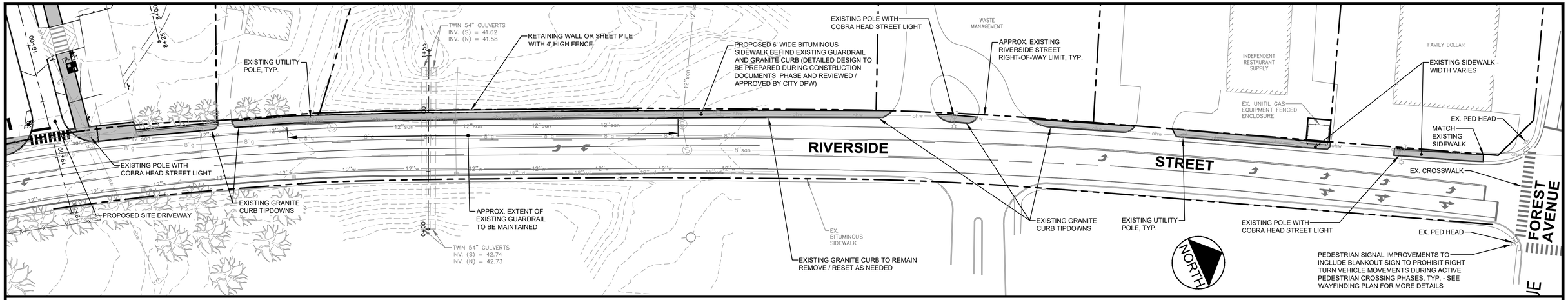
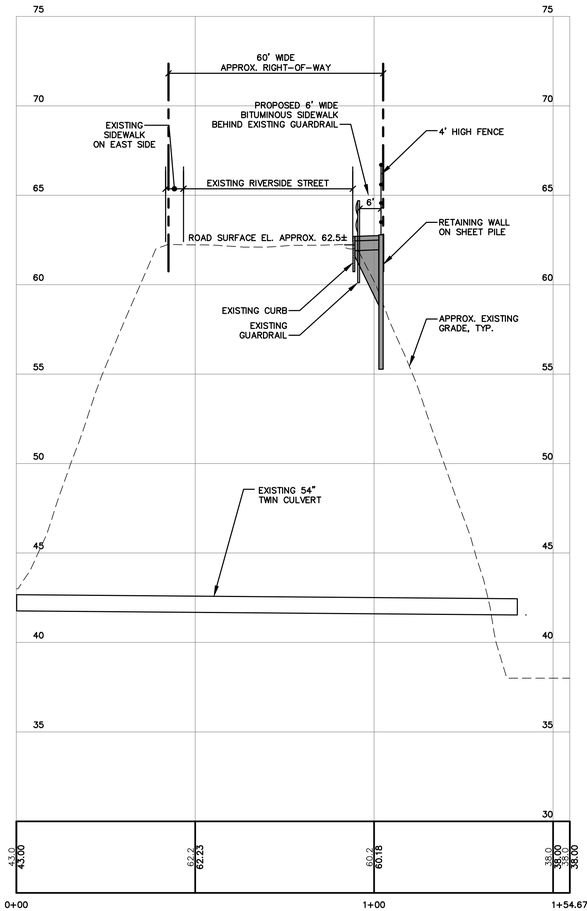


RIVERSIDE STREET SIDEWALK EXTENSION PLAN

SCALE: 1" = 40'



CROSS SECTION AT RIVERSIDE STREET CULVERT CROSSING

SCALE: 1" = 20' HORZ. / 1" = 4' VERT.

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File Name: 382401-SITE CROSS SECTIONS.dwg		

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Drawing Name: RIVERSIDE STREET SIDEWALK EXTENSION PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-3.1

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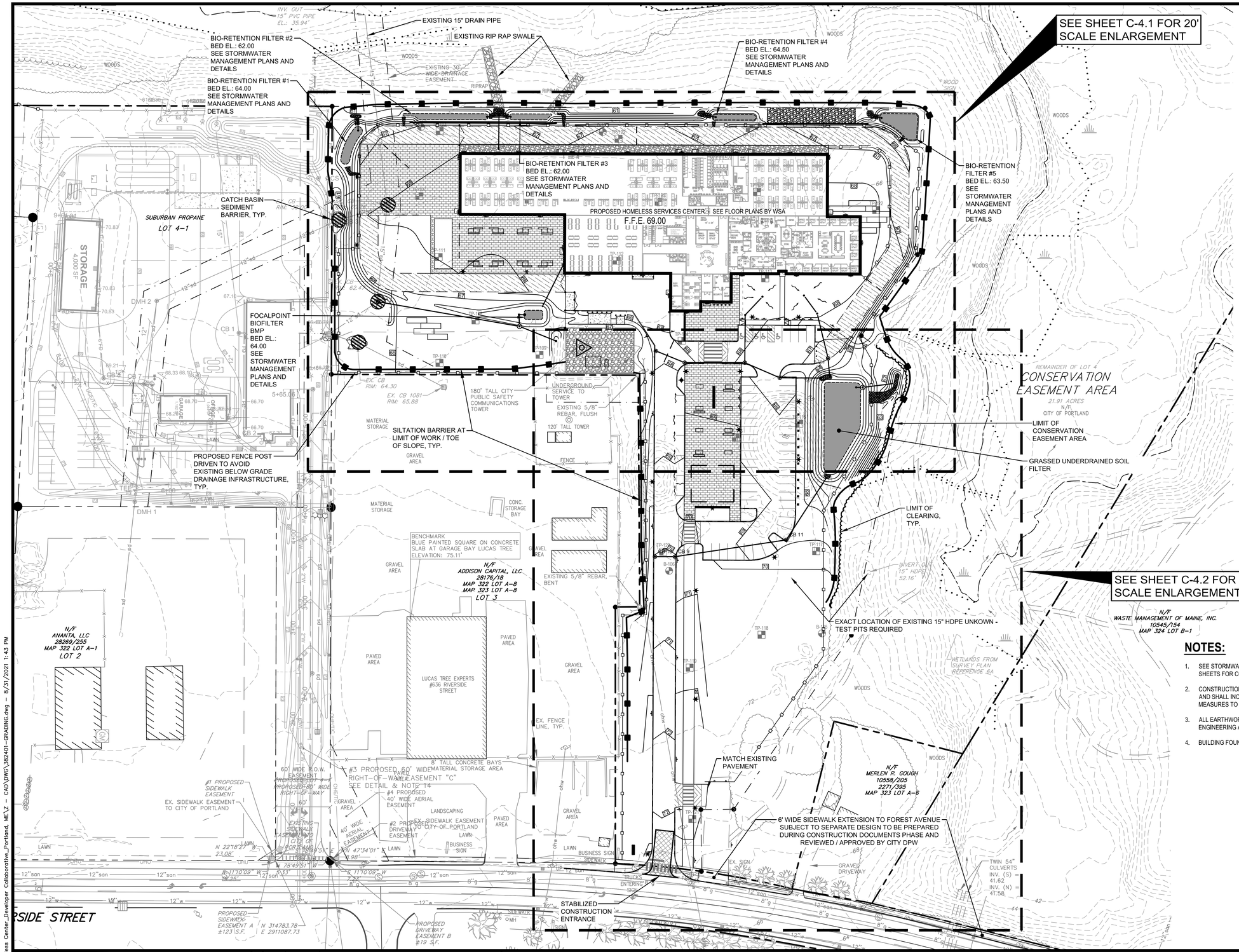
SEE SHEET C-4.1 FOR 20' SCALE ENLARGEMENT
SEE SHEET C-4.2 FOR 20' SCALE ENLARGEMENT
BIO-RETENTION FILTER #2 BED EL.: 62.00 SEE STORMWATER MANAGEMENT PLANS AND DETAILS
BIO-RETENTION FILTER #1 BED EL.: 64.00 SEE STORMWATER MANAGEMENT PLANS AND DETAILS
BIO-RETENTION FILTER #3 BED EL.: 62.00 SEE STORMWATER MANAGEMENT PLANS AND DETAILS
BIO-RETENTION FILTER #4 BED EL.: 64.50 SEE STORMWATER MANAGEMENT PLANS AND DETAILS
BIO-RETENTION FILTER #5 BED EL.: 63.50 SEE STORMWATER MANAGEMENT PLANS AND DETAILS
EXISTING 15" DRAIN PIPE
EXISTING RIP RAP SWALE
INV. OUT 15" PVC PIPE EL.: 35.94'
EXISTING 30' WIDE DRAINAGE EASEMENT
CATCH BASIN SEDIMENT BARRIER, TYP.
PROPOSED HOMELESS SERVICES CENTER - SEE FLOOR PLANS BY WSA
F.F.E. 69.00
SUBURBAN PROPANE LOT 4-1
STORAGE 1,400 SF
FOCALPOINT BIOFILTER BMP BED EL.: 64.00 SEE STORMWATER MANAGEMENT PLANS AND DETAILS
PROPOSED FENCE POST DRIVEN TO AVOID EXISTING BELOW GRADE DRAINAGE INFRASTRUCTURE, TYP.
SILTATION BARRIER AT LIMIT OF WORK / TOE OF SLOPE, TYP.
180' TALL CITY PUBLIC SAFETY COMMUNICATIONS TOWER
UNDERGROUND SERVICE TO TOWER
EXISTING 5/8" REBAR, FLUSH
120' TALL TOWER
FENCE
EX. CB 1081 RIM: 65.88
EX. CB RIM: 64.30
MATERIAL STORAGE
GRAVEL AREA
CONC. STORAGE BAY
BENCHMARK BLUE PAINTED SQUARE ON CONCRETE SLAB AT GARAGE BAY LUCAS TREE ELEVATION: 75.11'
N/F ADDISON CAPITAL, LLC 28176/18 MAP 322 LOT A-8 MAP 323 LOT A-8 LOT 3
EXISTING 5/8" REBAR, BENT
LUCAS TREE EXPERTS #636 RIVERSIDE STREET
PAVED AREA
N/F ANANTA, LLC 28269/255 MAP 322 LOT A-1 LOT 2
8' TALL CONCRETE BAYS
#3 PROPOSED 60' WIDE MATERIAL STORAGE AREA
RIGHT-OF-WAY EASEMENT "C" SEE DETAIL & NOTE 14
#4 PROPOSED 40' WIDE AERIAL EASEMENT
LANDSCAPING
#2 PROPOSED DRIVEWAY EASEMENT
EX. SIDEWALK EASEMENT TO CITY OF PORTLAND
#1 PROPOSED SIDEWALK EASEMENT
60' WIDE R.O.W. EASEMENT PROPOSED 50' WIDE RIGHT-OF-WAY
EXISTING SIDEWALK SPEARHEAD TO CITY OF PORTLAND
40' WIDE AERIAL EASEMENT
BUSINESS SIGN
EX. SIGN
TRUCKS ENTERING SIGN
STABILIZED CONSTRUCTION ENTRANCE
PROPOSED SIDEWALK EASEMENT A ±123 S.F.
N 314783.78 E 2911087.73
PROPOSED DRIVEWAY EASEMENT B #19 S.F.
N 2218'27" W 23.08'
S 11'10'09" W 12.33'
N 47'34'01" W 4.98'
S 78'49'51" W 23.08'
REMAINDER OF LOT 4 CONSERVATION EASEMENT AREA 21.91 ACRES N/F CITY OF PORTLAND
LIMIT OF CONSERVATION EASEMENT AREA
GRASSED UNDERDRAINED SOIL FILTER
LIMIT OF CLEARING, TYP.
INVERT OUT 15" HDPE 52.16'
EXACT LOCATION OF EXISTING 15" HDPE UNKOWN - TEST PITS REQUIRED
N/F WASTE MANAGEMENT OF MAINE, INC. 10545/154 MAP 324 LOT B-1
WETLANDS FROM SURVEY PLAN REFERENCE 6A
MATCH EXISTING PAVEMENT
N/F MERLEN R. GOUGH 10558/205 2271/395 MAP 323 LOT A-8
6' WIDE SIDEWALK EXTENSION TO FOREST AVENUE SUBJECT TO SEPARATE DESIGN TO BE PREPARED DURING CONSTRUCTION DOCUMENTS PHASE AND REVIEWED / APPROVED BY CITY DPW
GRAVEL DRIVEWAY
TWIN 54" CULVERTS INV. (S) = 41.62 INV. (N) = 41.58
RSIDE STREET
WOODS
B-105
TP-105
TP-106
TP-107
TP-108
TP-109
TP-110
TP-111
TP-112
TP-113
TP-114
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TP-137
TP-138
TP-139
TP-140
TP-141
TP-142
TP-143
TP-144

LEVEL LIP SPREADER
BERM EL.: 61.00
BERM LENGTH: 8'

LEVEL LIP SPREADER
BERM EL.: 60.25
BERM LENGTH: 16'

BIO-RETENTION FILTER #3
BED EL.: 62.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

LEVEL LIP SPREADER
BERM EL.: 62.00
BERM LENGTH: 8'

BIO-RETENTION FILTER #4
BED EL.: 64.50
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

LEVEL LIP SPREADER
BERM EL.: 62.00
BERM LENGTH: 8'

6" OUTFALL
INV.: 61.23

6" OUTFALL
INV.: 61.69

(2) 6" OUTFALLS
INV.: 59.74

4" BERM, 3' WIDE

66.5±

6" OUTFALL
INV.: 62.20

66.5±

68.98± (ALL REAR DOORS REQUIRE PRECAST CONCRETE LANDING AND STEPS DOWN TO EXTERIOR GRADE)

65.8±

GRADE BREAK

BIO-RETENTION FILTER #2
BED EL.: 62.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

4" BERM, 3' WIDE - TO MAINTAIN DRAINAGE PATTERNS TO STORMWATER MANAGEMENT BASINS, TYP.

RIP RAP STABILIZATION AT BASE OF WALL
D50 = 6", THICKNESS = 14"

MODULAR BLOCK RETAINING WALL WITH 42" FENCE FOR FALL PROTECTION - SHOP DRAWINGS REQUIRED FOR WALL DESIGN FROM LICENSED P.E., TYP.

POROUS PAVERS, TYP.

BIO-RETENTION FILTER #1
BED EL.: 64.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

BIO-RETENTION FILTER #5
BED EL.: 63.50
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

ADJUST EXISTING STRUCTURE TO GRADE WITH ONE OR MORE BARREL SECTIONS AND/OR CONE ADJUSTMENTS, TYP.

PROPOSED HOMELESS SERVICES CENTER - SEE FLOOR PLANS BY WSA

F.F.E. 69.00

GRADE BREAK

68.98

POROUS PAVERS, TYP.
(MAY INCLUDE 4" UNDERDRAIN SYSTEM - NOT SHOWN FOR CLARITY - WILL BE PROVIDED IN CONSTRUCTION DOCUMENTS)

FINAL ROOF DRAIN LOCATION SUBJECT TO FINAL BUILDING DESIGN

VERIFY ALL EXTERIOR GRADES WITH ARCHITECTURAL/STRUCTURAL & CIVIL PLANS PRIOR TO COMMENCMENT OF EARTHWORK ACTIVITY, TYP.

CORE HOLE TO ACCEPT NEW STORM DRAIN, TYP.

EX. CB
RIM: 62.47

EX. CB
RIM: 64.30

EX. CB 1081
RIM: 65.88

FOCALPOINT BIOFILTER BMP
BED EL.: 64.00
SEE STORMWATER MANAGEMENT PLANS AND DETAILS

EXISTING RIP RAP AROUND INLET, TYP.

PROPOSED FENCE POST DRIVEN TO AVOID EXISTING BELOW GRADE DRAINAGE INFRASTRUCTURE, TYP.

EXISTING 5/8" REBAR, FLUSH

MAINTAIN GLUTTER

68.78 TC
68.20 BC

68.58 TC
68.00 BC

68.8 TC
68.3 BC

68.31 TC
67.73 BC

68.76 TC
68.18 BC

68.96 TC
68.38 BC

67.93 TC
67.35 BC

POROUS PAVERS, TYP.

STRUCTURAL SLAB, TYP. - SEE STRUCTURAL PLANS

GRADE TO DRAIN, TYP.

LEVEL LIP S
BERM EL.: 5
BERM LENG

EMERGENCY SPILL

GRASSED UNDERD

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STATE OF MAINE
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No. 7429
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
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NORTH

20 0 10 20 40
1 inch = 20 ft.

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Drawing Name: 20' SCALE GRADING ENLARGEMENTS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-4.1

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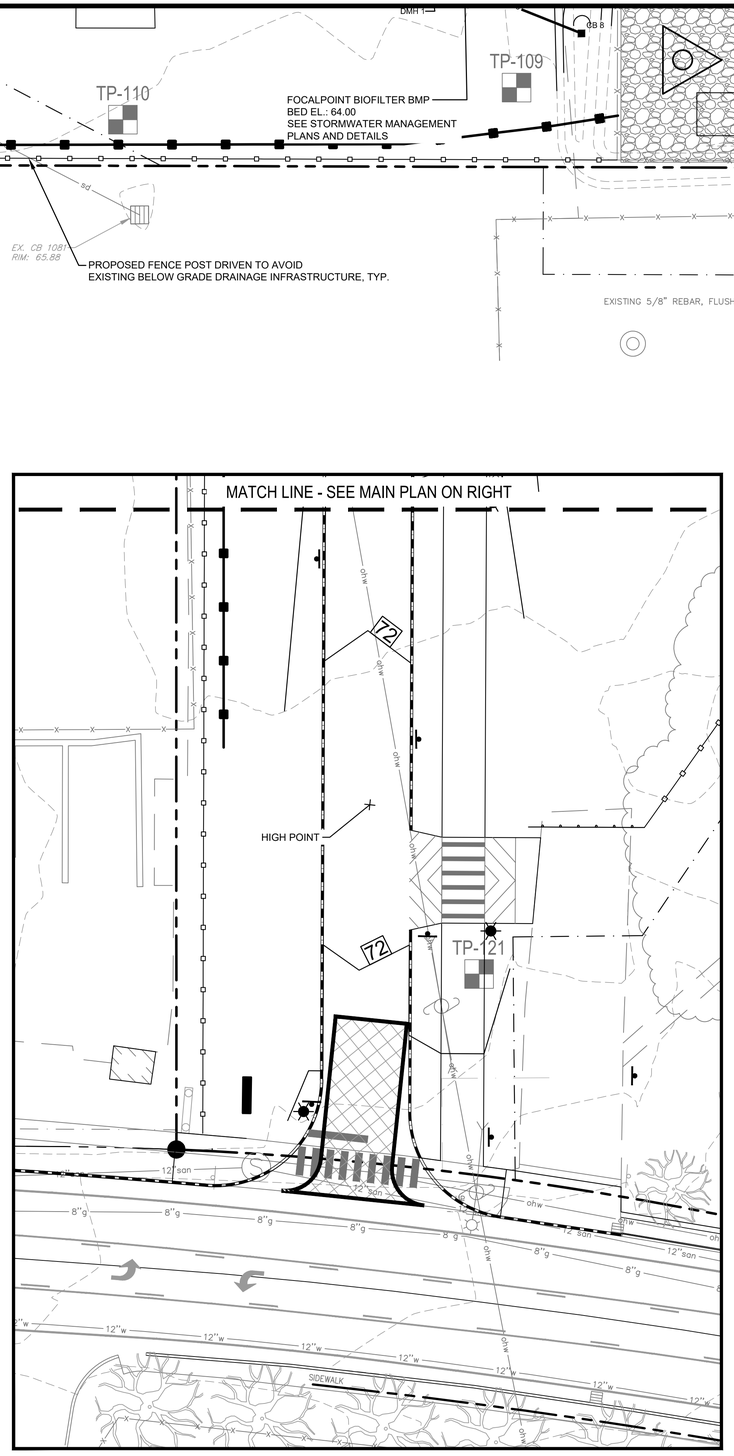
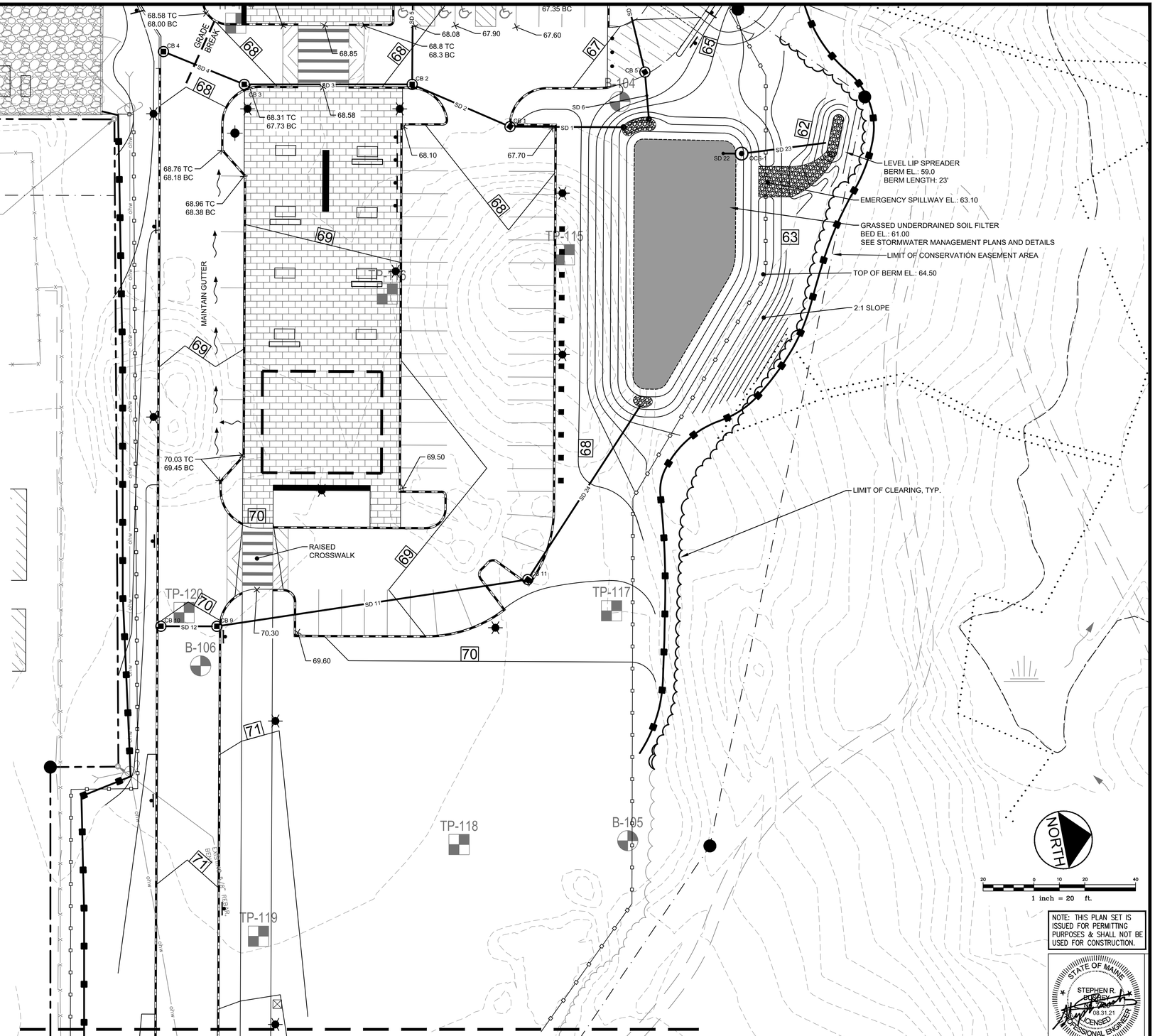


20 SCALE GRADING ENLARGEMENT - PLAN INSET



MATCH LINE - SEE PLAN INSET ON LEFT

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Drawing Name:	20' SCALE GRADING ENLARGEMENTS
Project:	**Homeless Services Center** 654 Riverside Street, Portland, Maine
Client/Owner:	**DC Predevelopment LLC** 100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No.
C-4.2

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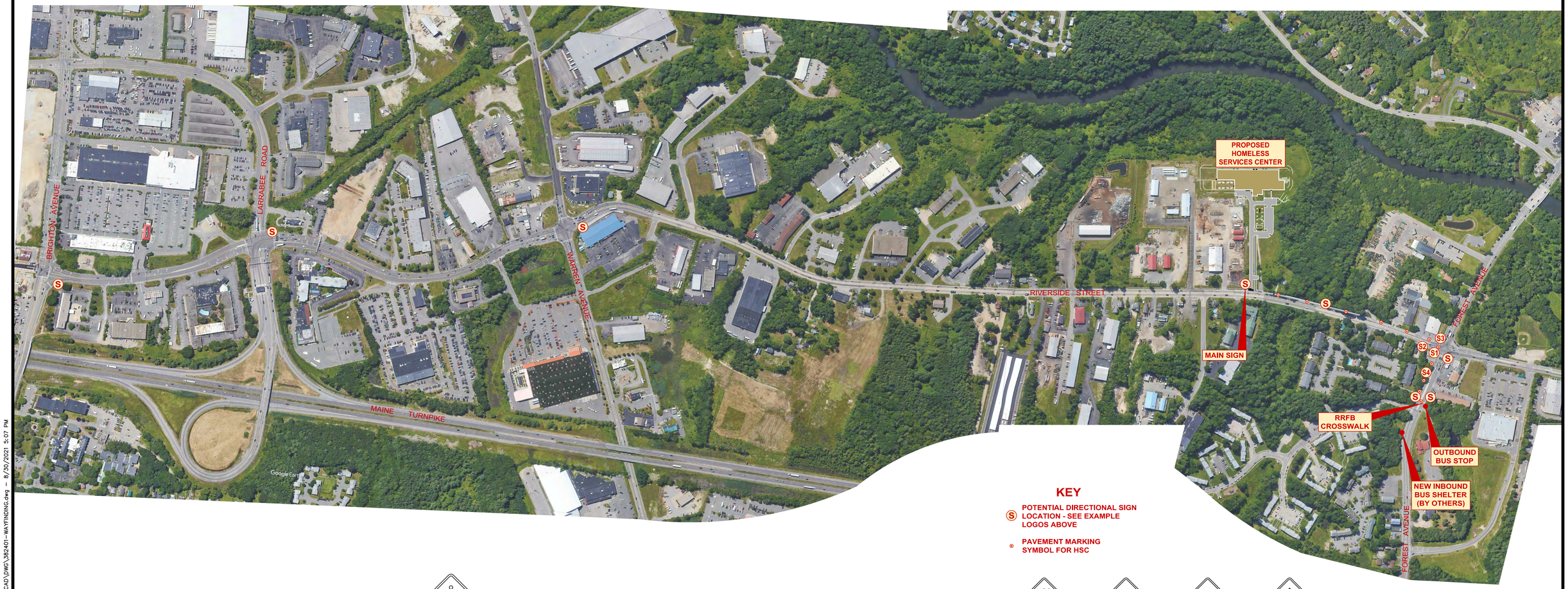
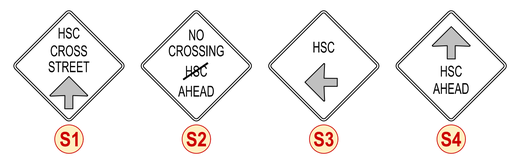
EXAMPLES OF HOMELESS SERVICES CENTER WAYFINDING SIGNAGE



KEY

- (S) POTENTIAL DIRECTIONAL SIGN LOCATION - SEE EXAMPLE LOGOS ABOVE
- PAVEMENT MARKING SYMBOL FOR HSC

EXAMPLE OF MUTCD SIGNAGE



300 0 150 300 600

1 inch = 300 ft.

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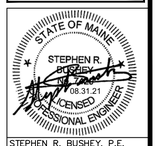

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1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-WAYFINDING.dwg		

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Drawing Name: WAYFINDING PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-5.0

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SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)
EX SMH 10	4'ø	71.31	60.00/8"(SMH 1) 52.70/12"(EX SMH 11)	52.62/12"(EX SMH 9)
SMH 1	4'ø	70.50	61.55/8"(SMH 2)	61.45/8"(EX SMH 10)
SMH 2	4'ø	68.00	63.12/8"(SMH 3)	63.02/8"(SMH 1)
SMH 3	4'ø	68.75	63.40/6"(BLDG SEWER) 63.40/6"(GREASE TANK)	63.30/8"(SMH 2)

PIPE TABLE

Pipe Name	Size	Length	Slope
SAN 1	8"	292'	0.50%
SAN 2	8"	298'	0.49%
SAN 3	8"	51'	0.35%
SAN 4	6"	14'	1.82%
SAN 5	6"	6'	1.70%

NOTES:

1. THE SITE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUIT / CONDUCTOR SIZING FOR ALL PROPOSED SECONDARY CIRCUITS EXTENDING FROM THE BUILDING TO EXTERIOR LIGHTING, OUTLETS, ELECTRIC VEHICLE CHARGING STATIONS, PROJECT SIGN AND RELATED SITE AMENITIES.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STEPHEN R. BUSHEY, P.E. LIC. #7429

Rev.	Date	Revision
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File Name: 382401-UTIL.dwg		

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Drawing Name: UTILITY PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-6.0

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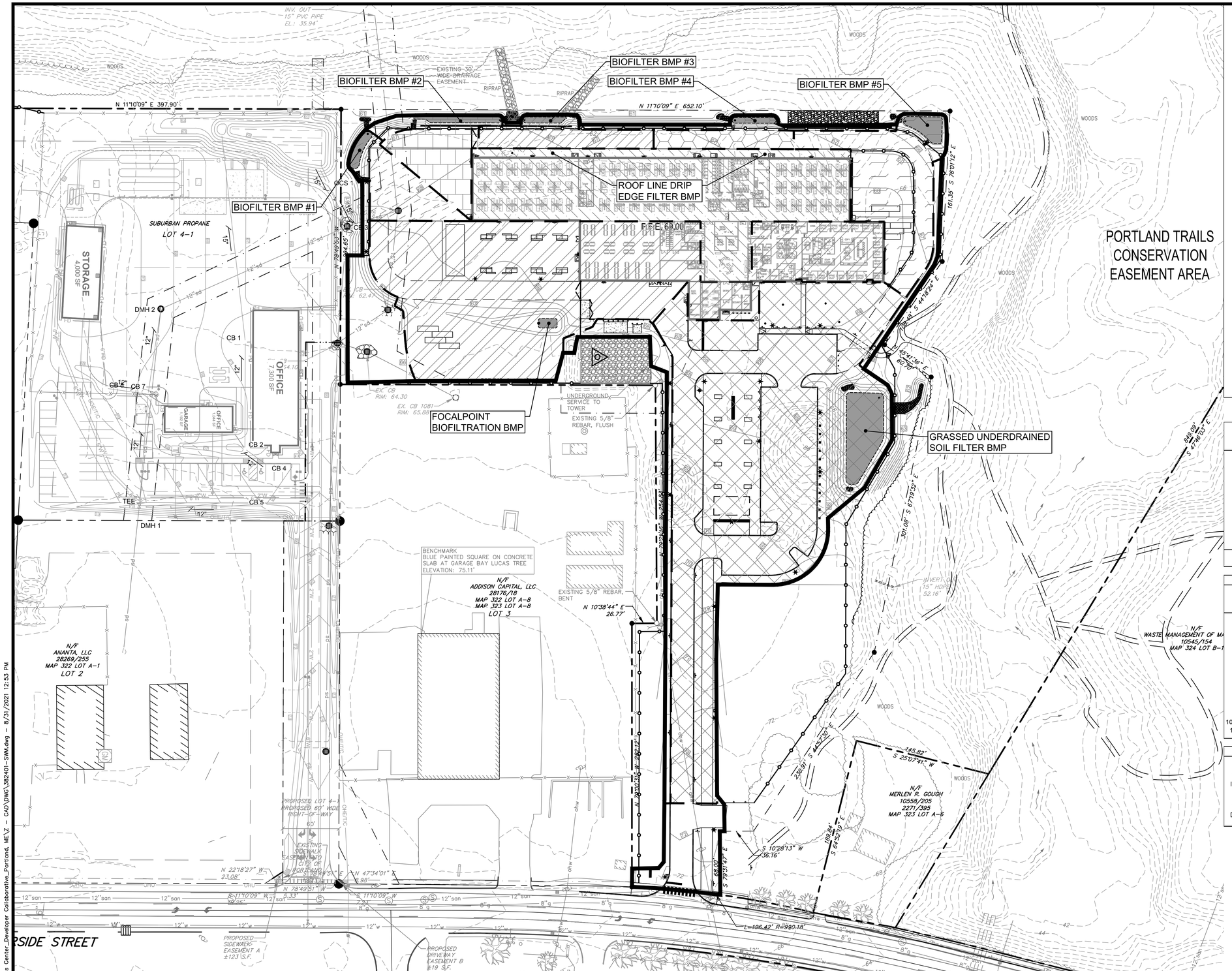

STORMWATER TREATMENT METHOD LEGEND

- TO BIO-FILTER #1
- TO BOI-FILTER #2
- TO BIO-FILTER #3
- TO BIO-FILTER #4
- TO BIO-FILTER #5
- TO FOCALPOINT
- TO GRASSED UNDERDRAINED SOIL FILTER
- TO ROOF LINE DRIP EDGE FILTER
- UNTREATED AREA

STORMWATER MANAGEMENT SUMMARY

Subarea ID	New Development			Treated New Impervious Area (sf)	Treated New Landscaped Area (sf)
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)		
101a	0	860	860	0	0
101b	281	4,664	4,945	281	4,664
101c	4,216	2,754	6,970	4,216	2,754
101d	5243	661	5,904	5,243	661
101e	35078	0	35,078	35,078	0
102a	3986	9,173	13,159	0	0
102b	274	3,532	3,806	274	3,532
102c	1984	12,606	14,590	1,984	12,606
102d	52954	22,963	75,917	52,954	22,963
103a	0	7,664	7,664	0	0
103b	34364	24,258	58,622	34,364	24,258
104	331	5,029	5,360	0	0
Total (sf)	**138,711**	**94,164**	**232,875**	**134,394**	**71,438**
Total (ac)	**3.18**	**2.16**	**5.35**	**3.09**	**1.64**

BMP Summary

Subarea ID	Treatment Method	Water Quality Volume Required (cf)	Water Quality Volume Provided (cf)	BMP Surface Area Required (sf)	BMP Surface Area Provided (sf)
101d	Bio-Filter 1	459	462	387	427
101c	Bio-Filter 2	443	596	378	547
101b	Bio-Filter 3	179	305	160	281
102b	Bio-Filter 4	141	299	125	274
102c	Bio-Filter 5	586	820	517	793
103b	Focalpoint Biofiltration System	N/A	N/A	N/A	N/A
102d	Grassed Underdrained Soil Filter	5,178	5,728	3,107	3,226
101e	Roof Line Drip Edge Filter	2,923	3,273	-	-
101a, 102a, 103a, 104 (untreated)		-	-	-	-

Treatment Summary

	Required	Provided
Treated New Impervious (%)	95%	96.89%
Treated New Developed (%)	80%	88.39%

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE STEPHEN R. BUSHEY 08.31.21 LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing Name: OVERALL STORMWATER MANAGEMENT PLAN

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.0

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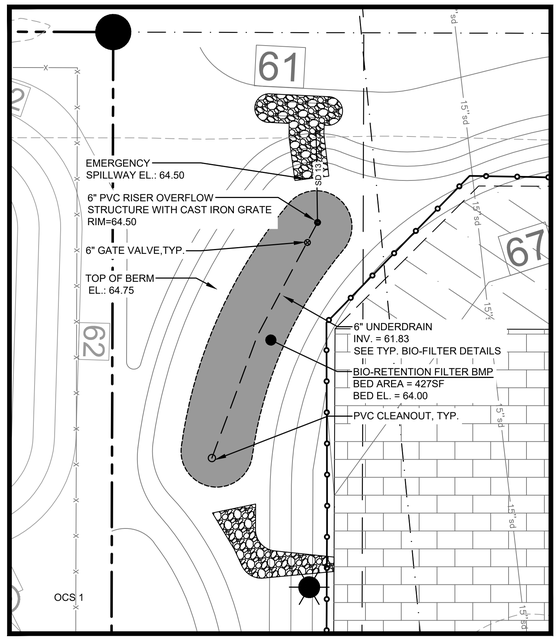
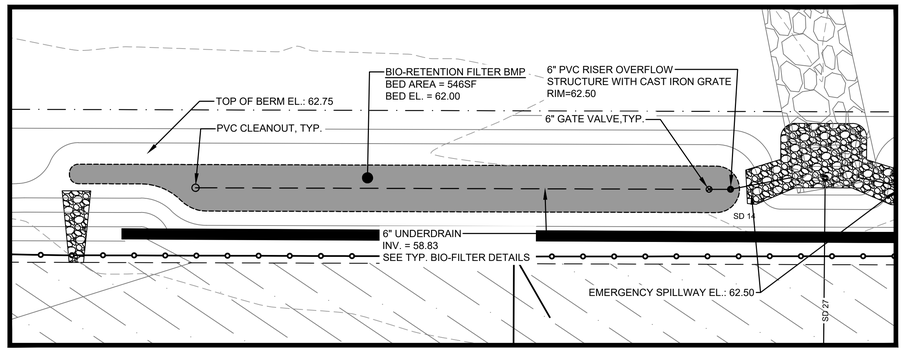


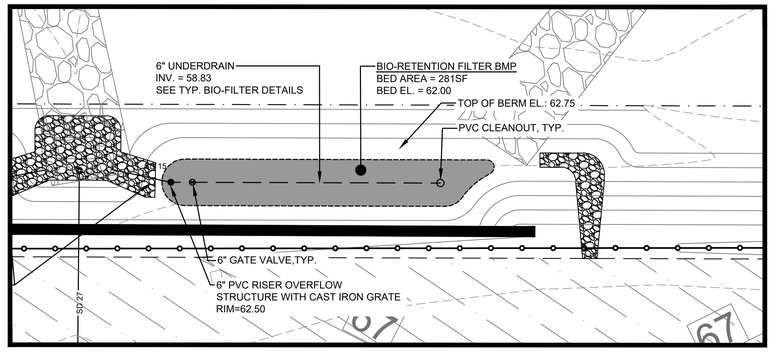
BIO-RETENTION FLITER #1

SCALE: 1" = 10'



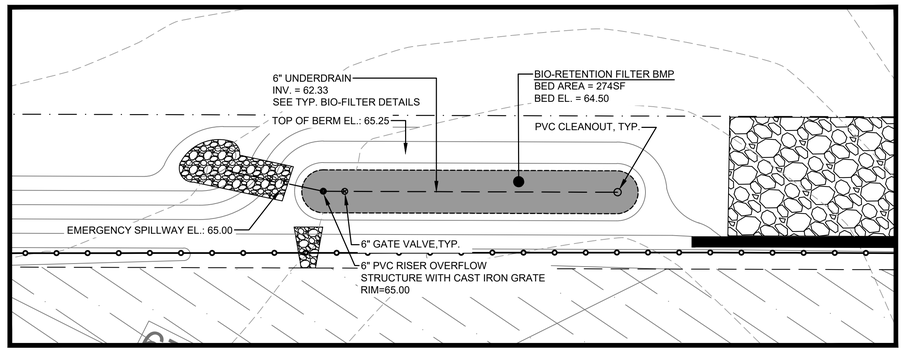
BIO-RETENTION FILTER #2

SCALE: 1" = 10'



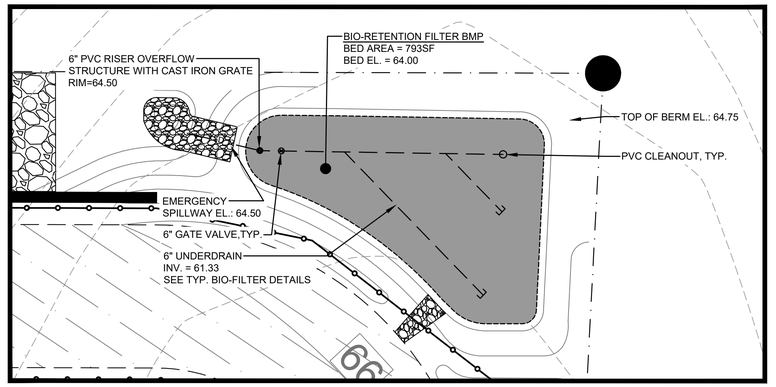
BIO-RETENTION FILTER #3

SCALE: 1" = 10'



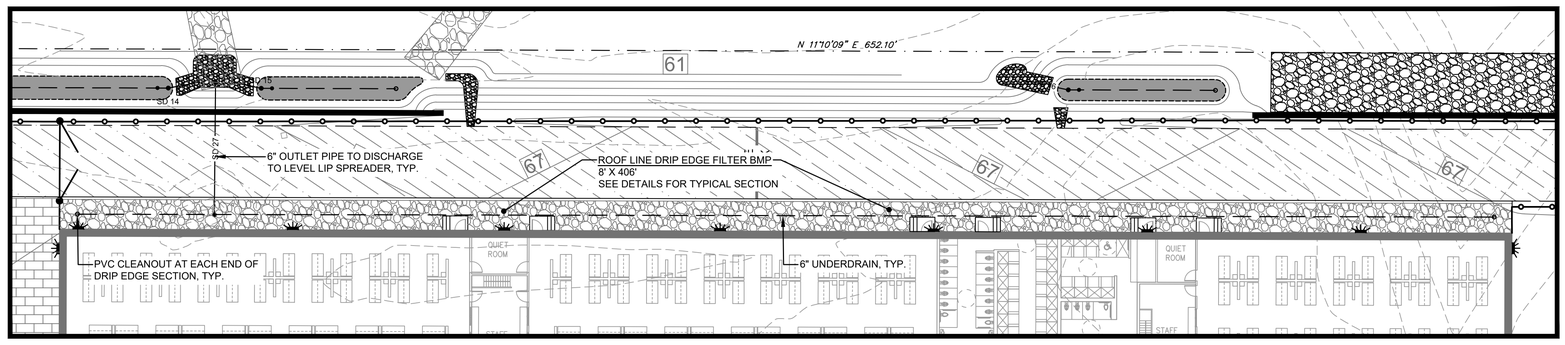
BIO-RETENTION FILTER #4

SCALE: 1" = 10'



BIO-RETENTION FILTER #5

SCALE: 1" = 10'



ROOF LINE DRIP EDGE FILTER

SCALE: 1" = 20'

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
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Drawing Name: STORMWATER MANAGEMENT PLAN - BMP PLAN VIEWS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.1

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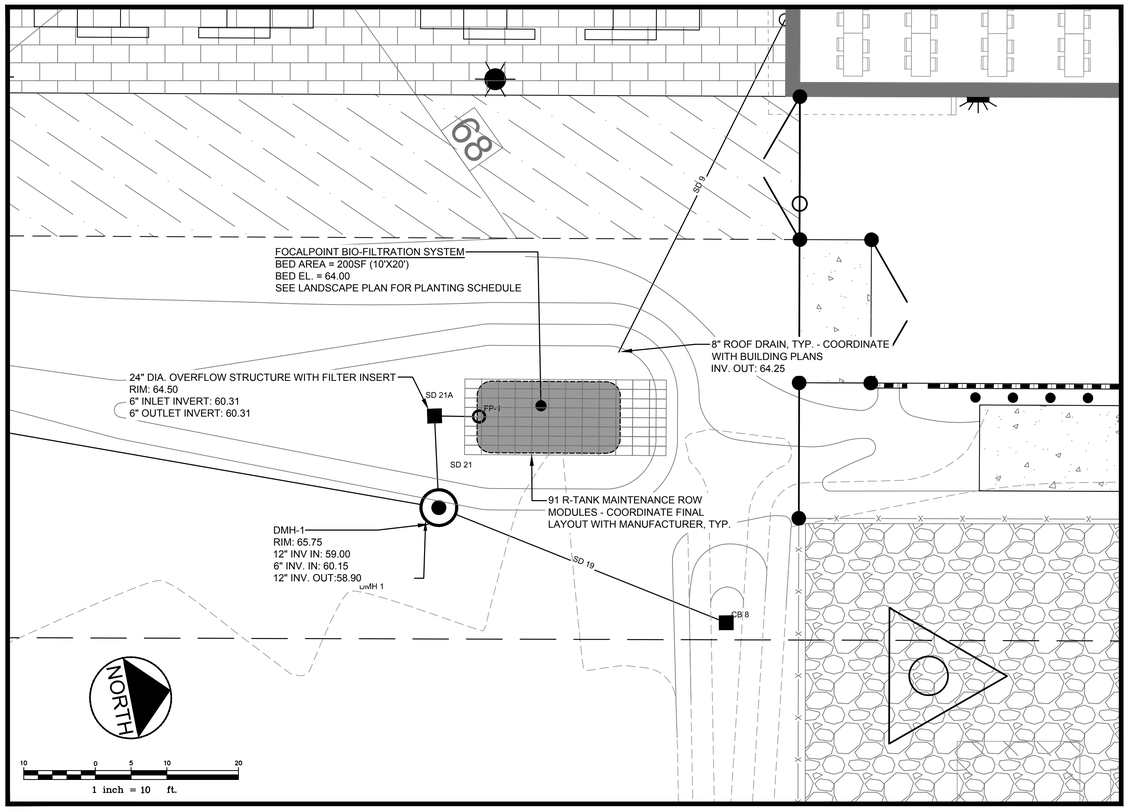
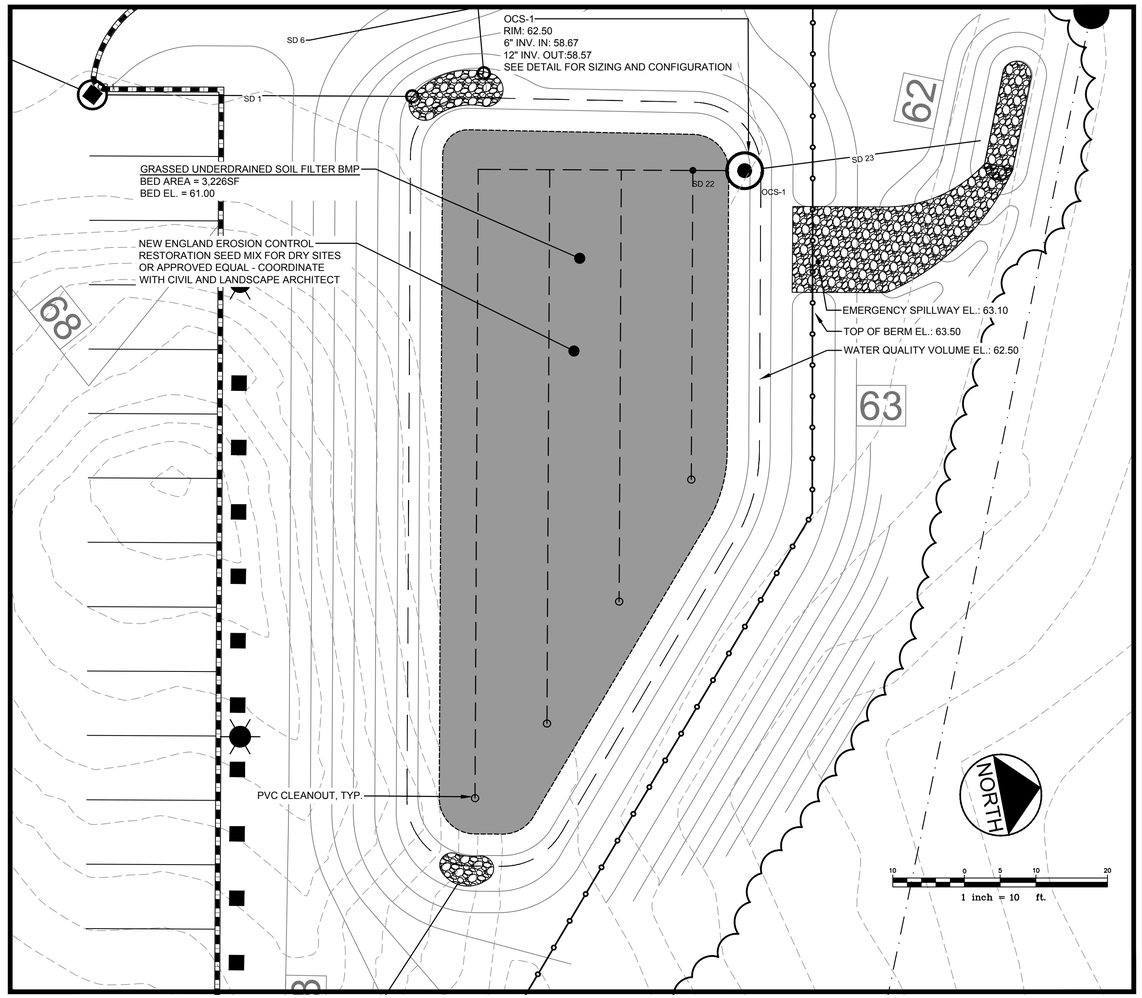


FOCALPOINT BIO-FILTRATION SYSTEM

SCALE: 1" = 10'



GRASSED UNDERDRAINED SOIL FILTER

SCALE: 1" = 10'

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STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

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Drawing Name: STORMWATER MANAGEMENT PLAN - BMP PLAN VIEW

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.2

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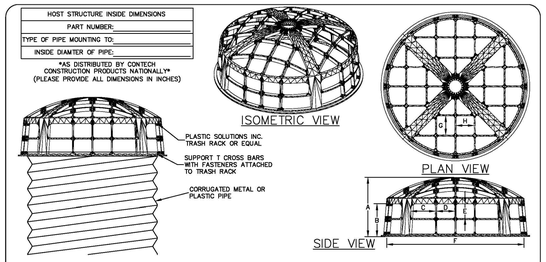
HOST STRUCTURE INSIDE DIMENSIONS
PART NUMBER:
TYPE OF PIPE MOUNTING TO:
INSIDE DIAMTER OF PIPE:

AS DISTRIBUTED BY CONTECH CONSTRUCTION PRODUCTS NATIONALLY
(PLEASE PROVIDE ALL DIMENSIONS IN INCHES)



ROUND SERIES TRASH RACKS										
	RISER									
PART NO.	CONCRETE INSIDE DIA.	CMP OR HDPE NOMINAL DIA.	A	B	C	D	E	F	G	H
RS-24	24"ø	12"ø-18"ø	17 1/2"	13 1/2"	7 3/4"	6 1/4"	6 1/4"	27 1/2"	6 1/4"	7 1/2"
RS-36	36"ø	21"ø-30"ø	21 1/8"	13 1/2"	6 1/4"	6 1/4"	6 1/4"	40 1/2"	6 1/4"	7 1/2"
RS-48	48"ø	33"ø-42"ø	27 3/4"	17 3/4"	7"	8 1/2"	6 3/4"	54 1/4"	8 1/2"	8"
RS-60	60"ø	48"ø-54"ø	27 3/4"	17 3/4"	11 1/2"	8 1/2"	6 3/4"	67 1/2"	8 1/2"	9"

CONTECH CONSTRUCTION PRODUCTS INC.
9025 CENTRE POINT DRIVE, SUITE 400
WEST CHESTER, OHIO 45069
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CUSTOMER:
PROJECT:
DATE:
DRAWN BY:
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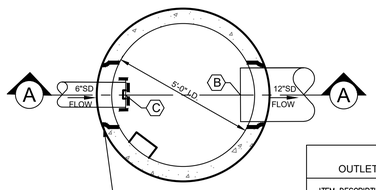
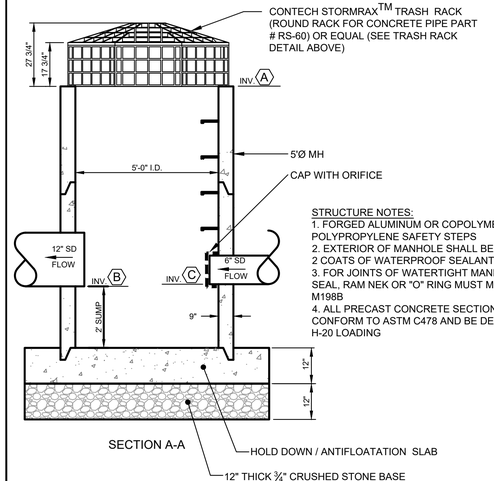
DETAIL:



PLAN VIEW

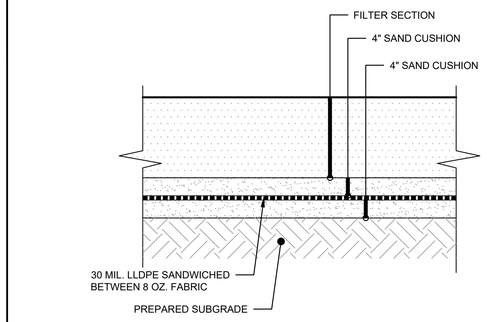
SCHEDULE B OUTLET CONTROL STRUCTURE	
ITEM DESCRIPTION	STRUCTURE OCS
(A) RIM INVERT	62.50
(B) OUTLET PIPE INVERT – 12"	58.57
(C) INLET PIPE INVERT – 6"	58.67



STRUCTURE NOTES:
1. FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE SAFETY STEPS
2. EXTERIOR OF MANHOLE SHALL BE TREATED WITH 2 COATS OF WATERPROOF SEALANT
3. FOR JOINTS OF WATERTIGHT MANHOLE KENT SEAL, RAM NEK OR "O" RING MUST MEET AASHTO M198B
4. ALL PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C478 AND BE DESIGNED FOR H-20 LOADING

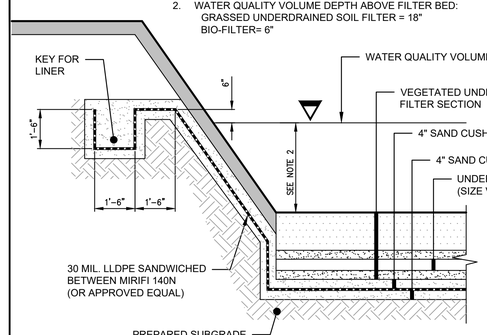
SECTION A-A

(A) 5'-0" PRECAST OUTLET CONTROL STRUCTURE 1 DETAIL
N.T.S.

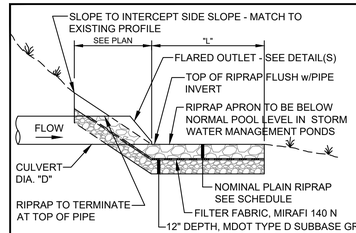


(B) TYPICAL DETAIL IMPERMEABLE LINER UNDERDRAINED WATER QUALITY FILTER
N.T.S.

NOTE:
1. INSTALL WATER TIGHT SEAL AT ALL LOCATIONS WHERE PIPE PENETRATES THE LINER, PER MANUFACTURER'S RECOMMENDATIONS
2. WATER QUALITY VOLUME DEPTH ABOVE FILTER BED:
GRASSED UNDERDRAINED SOIL FILTER = 18"
BIO-FILTER= 6"



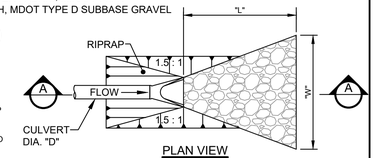
(E) TYPICAL DETAIL LLDPE LINER SIDE SLOPE AND TOP "KEY"
N.T.S.



SECTION VIEW A

SCHEDULE FOR STORM DRAIN				
CULVERT DIAMETER (D)	LENGTH (L)	WIDTH (W)	STONE d_{50}	RIPRAP THICKNESS
12"	10'	12'	6"	14"
15"	10'	12'	6"	14"
18"	10'	12'	6"	14"
24"	12'	14'	6"	14"
30"	12'	23'	6"	27"
36"	14'	23'	6"	27"
42"	24'	28'	12"	27"
48"	28'	32'	12"	27"

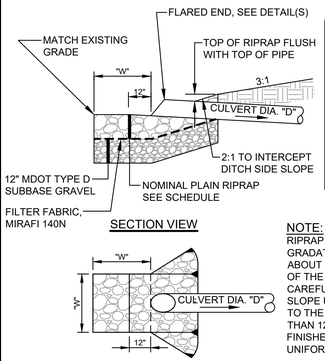
NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.



PLAN VIEW

IN LAWN AREAS, THE RIPRAP APRON SHALL BE SURROUNDED BY A LANDSCAPE TIMBER TO PROVIDE AN ATTRACTIVE APRON.
LANDSCAPE TIMBER TO BE 5" TREX SECURED WITH 4'-0" LONG METAL U CHANNEL SPACED @ 4'-0" O.C. OR APPROVED EQUAL.

(F) RIPRAP OUTLET APRON DETAIL
N.T.S.



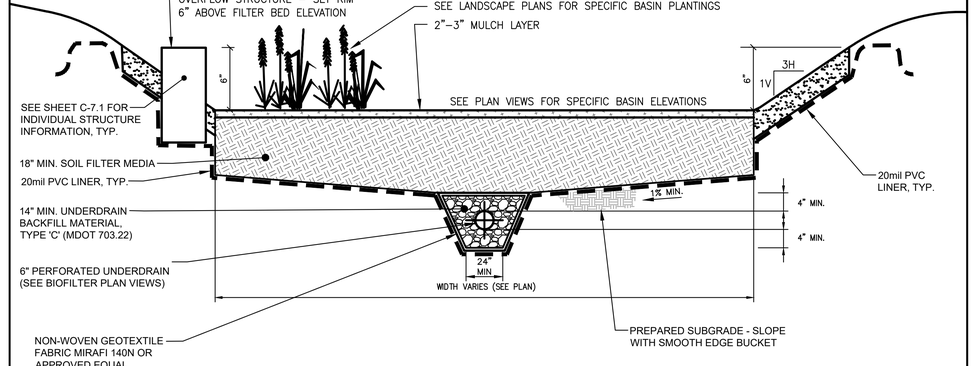
SECTION VIEW

SCHEDULE			
CULVERT DIAMETER (D)	WIDTH (W)	STONE d_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
30"	8'	12"	27"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"

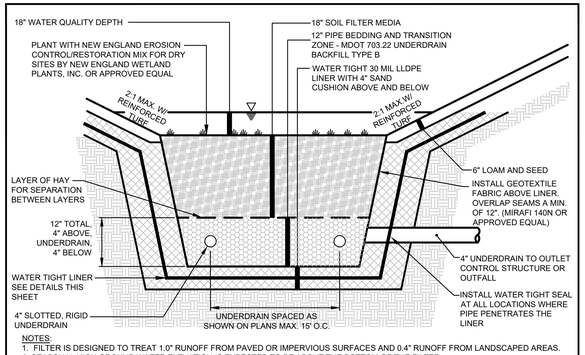
PLAN VIEW

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

(C) RIPRAP INLET APRON DETAIL
N.T.S.



(G) BIORETENTION FILTER (RAIN GARDEN)
N.T.S.

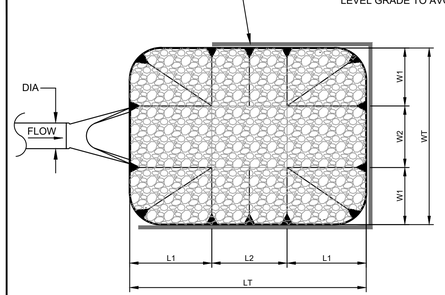


NOTES:
1. FILTER IS DESIGNED TO TREAT 1.0" RUNOFF FROM PAVED OR IMPERVIOUS SURFACES AND 0.4" RUNOFF FROM LANDSCAPED AREAS.
2. SEASONAL HIGH GROUND WATER ELEVATION IS EXPECTED TO BE ABOVE THE BOTTOM OF THE FILTER.
3. 30 MIL LLDPE LINER SHALL BE PLACED ABOVE PREPARED SUBGRADE IN 2 - 4" SAND CUSHION LIFTS TO PREVENT GROUNDWATER INFILTRATION AND PROTECT THE GROUNDWATER. LINER SHALL EXTEND UP FILTER SIDE SLOPES TO THE 25 YR. FLOOD STAGE. ONSITE CLAY SOILS MAY BE USED INSTEAD OF A LINER, IF AVAILABLE.

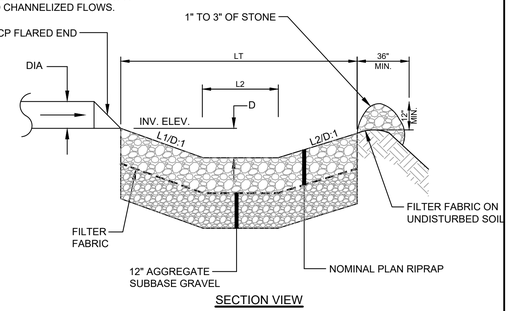
(D) TYPICAL SECTION FOR UNDERDRAINED GRASSED SOIL FILTER W/ LLDPE LINER
N.T.S.

CONSTRUCT LEVEL SPREADER AT TOP OF POOL. TOP OF SPREADER SHALL BE A LEVEL GRADE 18" ABOVE TOP OF PLUNGE POOL.

NOTE:
THE PURPOSE OF THIS STRUCTURE IS TO INDUCE SHEET FLOW TO ADJACENT AREAS. THE OUTLET OF THE PLUNGE POOL SHALL BE CONSTRUCTED AT A LEVEL GRADE TO AVOID CHANNELIZED FLOWS.



PLAN VIEW



SECTION VIEW

SCHEDULE									
DIA.	L1	L2	LT	W1	W2	WT	D	STONE D_{50}	RIPRAP THICKNESS
15"	3'	2'	8'	3'	2'	8'	1'	6"	14"
24"	3'	2'	8'	3'	2'	8'	1'	6"	14"

(H) RIPRAP PLUNGE POOL WITH LEVEL LIP SPREADER DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401–SWM.dwg		

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Drawing Name: STORMWATER MANAGEMENT DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-7.3

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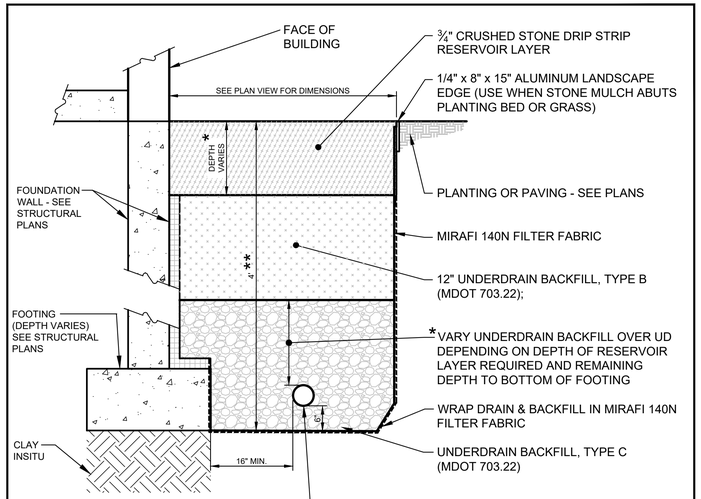
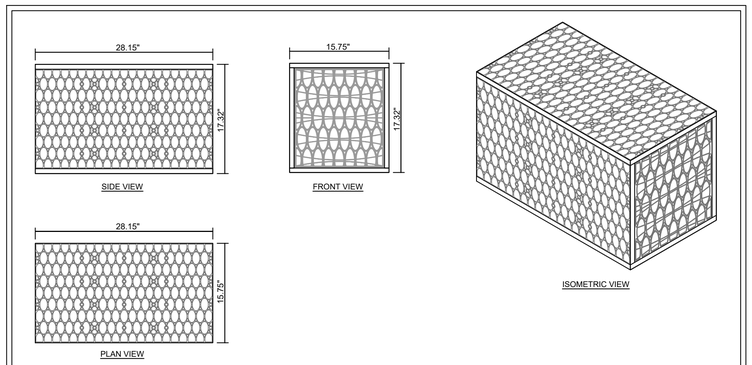


*SEE ROOF DRIP EDGE FILTER PLAN VIEW FOR SPECIFIC DRIP EDGE DIMENSIONS.

**SEE GEOTECH & STRUCTURAL PLANS FOR FINAL BOTTOM OF FOOTING EL. TOP OF UNDERDRAIN PIPE EL. SHALL BE SET 6" ABOVE THE BOTTOM OF FOOTING EL.

(A) DRIP EDGE FILTER AREA DETAIL

N.T.S.



MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM)
WIDTH = 15.75 IN. (400 MM)
HEIGHT = 17.32 IN. (440 MM)
TANK VOLUME = 4.44 CF
STORAGE VOLUME = 4.22 CF
VOID INTERNAL VOLUME: 95%
VOID SURFACE AREA: 90%

LOAD RATING: 33.4 PSI, (MODULE ONLY)
HS25, (WITH ACF COVER SYSTEM)

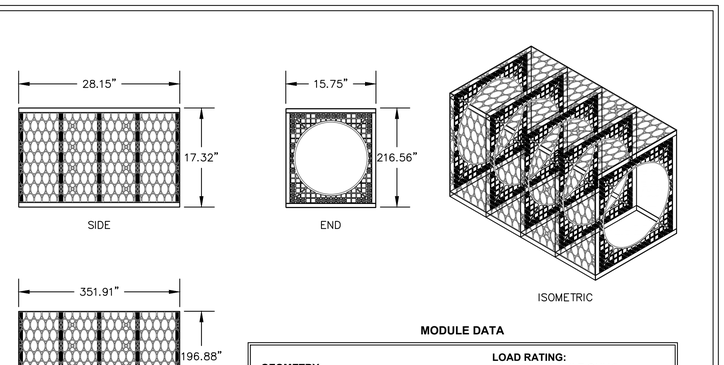
MATERIAL: 100% RECYCLED POLYPROPYLENE

SMALL PLATES PER SEGMENT/TOTAL: 5/5

ACF ENVIRONMENTAL — LET'S GET IT DONE

R-TANK^{HD} - SINGLE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com 5/16



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VOID INTERNAL VOLUME: 95%
VOID SURFACE AREA: 90%

LOAD RATING:
33.4 PSI, (MODULE ONLY)
HS20, (WITH ACF COVER SYSTEM)

MATERIAL:
100% RECYCLED POLYPROPYLENE

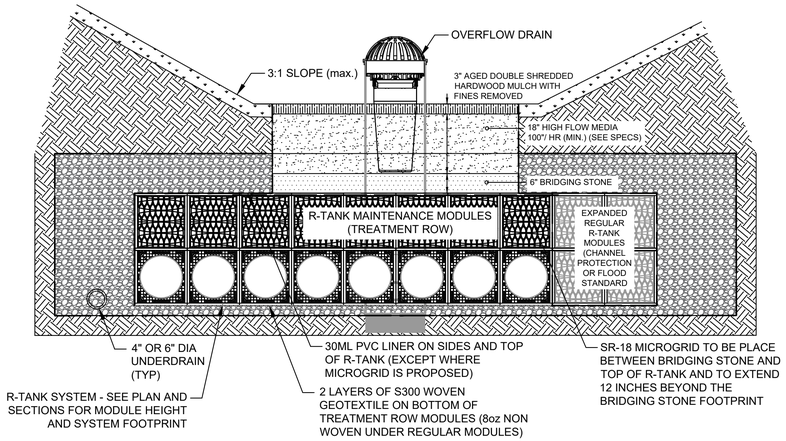
SMALL PLATES PER SEGMENT/TOTAL:
5/5

09/25/2017

ACF ENVIRONMENTAL — LET'S GET IT DONE

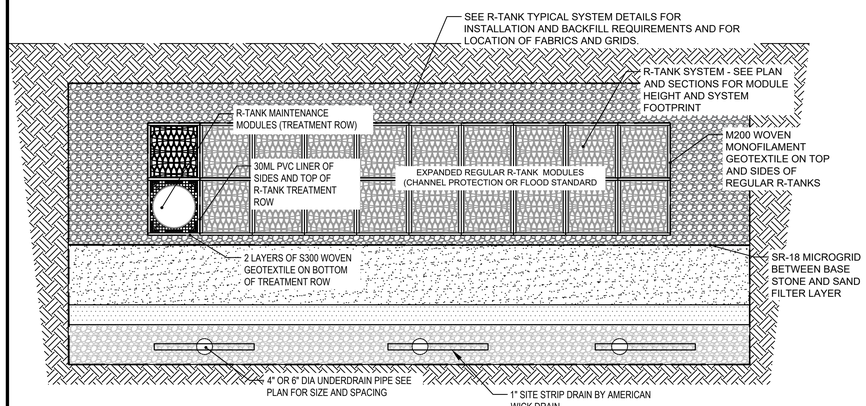
R-TANK^{HD} - SINGLE MAINTENANCE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



FOCALPOINT WITH R-TANK TREATMENT ROW

N.T.S.



SUBSURFACE SAND FILTER WITH R-TANK TREATMENT ROW

N.T.S.

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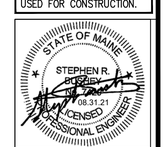

STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Drawing No. C-7.4

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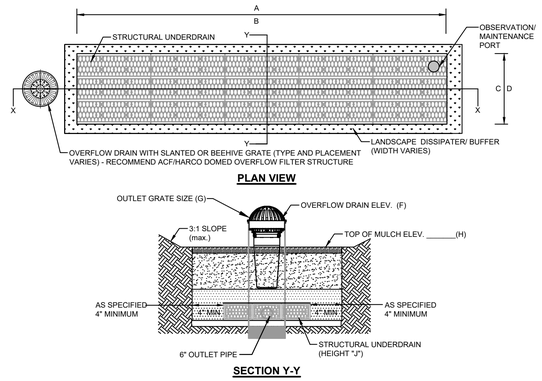
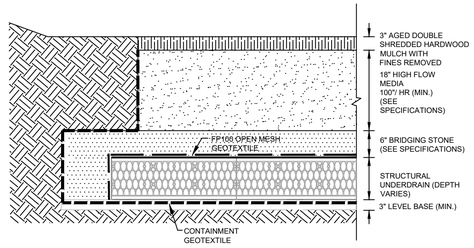


Ⓐ FOCALPOINT CONSTRUCTION GUIDE
N.T.S.



FOCALPOINT HP PERFORMANCE SPECIFICATION:

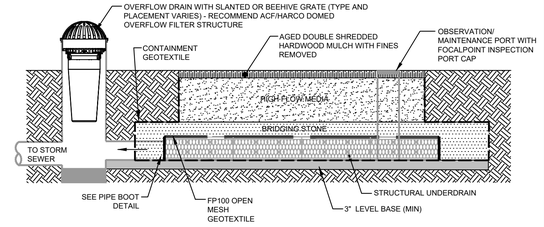
HIGH PERFORMANCE MEDIA

HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 100"PER HOUR INFILTRATION RATE.

HIGH PERFORMANCE STRUCTURAL UNDERDRAIN

MUST HAVE A MINIMUM OF 19 SQUARE INCHES OF ORIFICE OPENING PER SQUARE FOOT.
MUST MEET H20 LOADING REQUIREMENTS.
MUST BE MODULAR IN NATURE AND ASSEMBLED ON SITE.
MUST HAVE MINIMUM 90% INTERIOR VOID SPACE.

Ⓓ FOCALPOINT DETAILED CROSS SECTION
N.T.S.



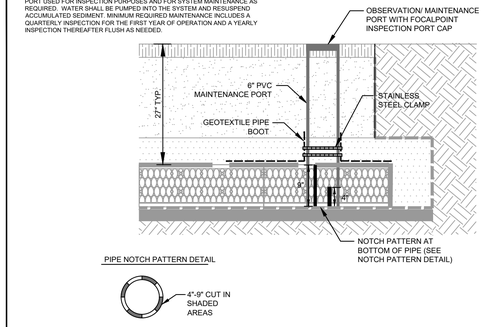
Ⓖ FOCALPOINT SECTION X-X
N.T.S.

FOCALPOINT KEY DIMENSIONAL DATA		
FOCALPOINT ID		FP-1
A	FOCALPOINT LENGTH	6.67'
B	# UNDERDRAIN LONG	1
C	FOCALPOINT WIDTH	3.0'
D	# UNDERDRAIN WIDE	1
E	WATER QUALITY VOLUME	N / A
F	OVERFLOW ELEVATION	21.60
G	OUTLET GRATE SIZE	12"
H	TOP OF MULCH	21.10
J	UNDERDRAIN HEIGHT	SINGLE

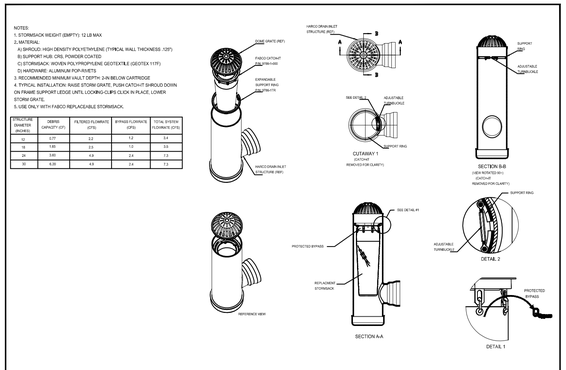
Ⓑ FOCALPOINT KEY DIMENSIONAL DATA
N.T.S.

OBSERVATION/ MAINTENANCE PORT

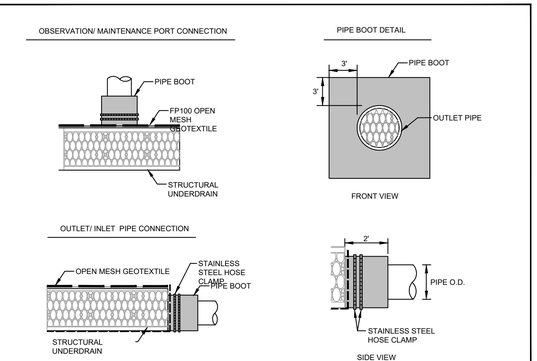
PORT USED FOR INSPECTION PURPOSES AND FOR SYSTEM MAINTENANCE AS REQUIRED. WATER SHALL BE PUMPED INTO THE SYSTEM AND RESUSPEND ACCUMULATED SEDIMENT. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION FOR THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER FLUSH AS NEEDED.



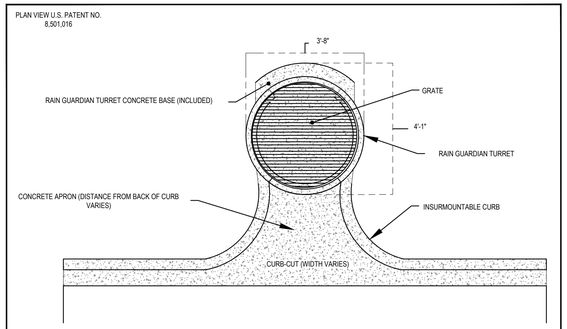
Ⓔ FOCALPOINT OBSERVATION PORT DETAIL
N.T.S.



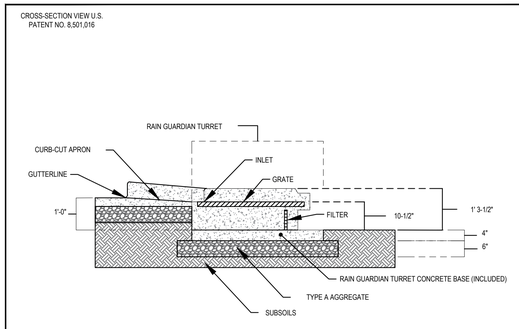
Ⓗ ACF/HARCO DOMED OVERFLOW FILTER RISER
N.T.S.



Ⓒ FOCALPOINT PIPE CONNECTION DETAIL
N.T.S.



Ⓕ RAIN GUARDIAN TURRET - PLAN
N.T.S.



Ⓘ RAIN GUARDIAN TURRET - SECTION
N.T.S.

NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

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STATE OF MAINE
STEPHEN R. BUSHEY
No. 7429
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
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Drawing No. C-7.5

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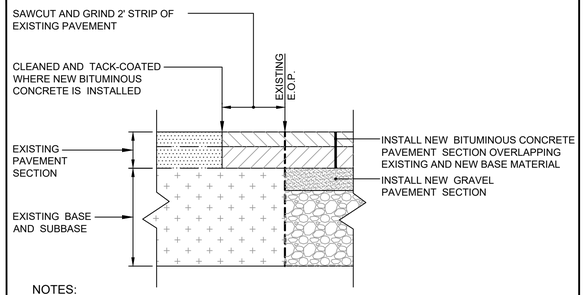
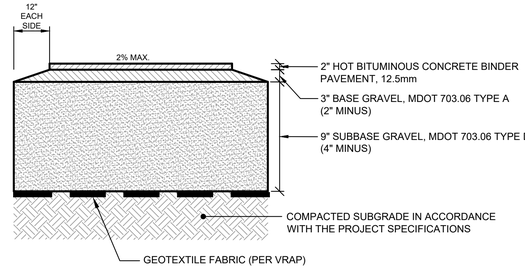


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

(A) TYPICAL PAVEMENT SECTION NEW PAVEMENT ADJACENT TO EXISTING PAVEMENT

N.T.S.

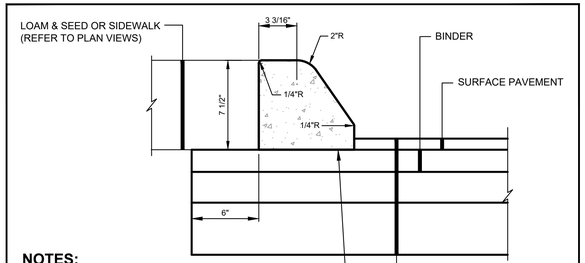


NOTES:

1. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
2. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS.

(D) BITUMINOUS CONCRETE SIDEWALK SECTION FOR SITE INSTALLATION ONLY

N.T.S.



NOTES:

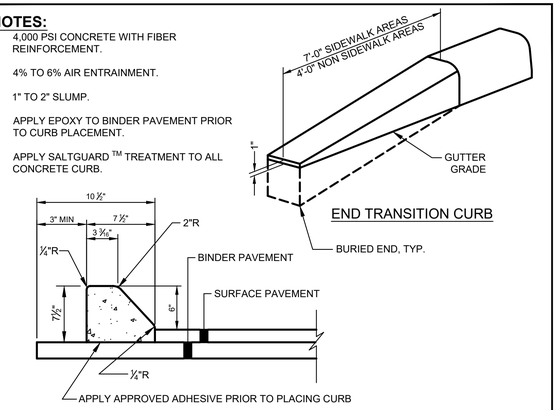
1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT AND SAWCUT JOINTS AT NO MORE THAN 30' SPACING
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD™ CHLORIDE INHIBITOR TO ALL NEW CONCRETE CURBING UPON COMPLETION OF CURING PERIOD.
6. ALL TIPDOWNS SHALL HAVE REINFORCEMENT TO AVOID CRACKING. TIPDOWNS SHALL HAVE NO MORE THAN 1/2" REVEAL AT THE END.

(G) DIRECT TO BINDER SLIPFORM CONCRETE CURB

N.T.S.

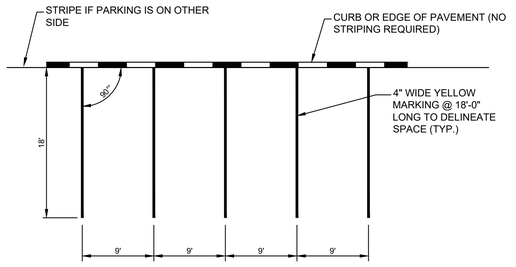
NOTES:

1. 4,000 PSI CONCRETE WITH FIBER REINFORCEMENT.
2. 4% TO 6% AIR ENTRAINMENT.
3. 1" TO 2" SLUMP.
4. APPLY EPOXY TO BINDER PAVEMENT PRIOR TO CURB PLACEMENT.
5. APPLY SALTGUARD ™ TREATMENT TO ALL CONCRETE CURB.



(J) EXTRUDED SLIPFORM SLOPED CONCRETE CURB DETAIL

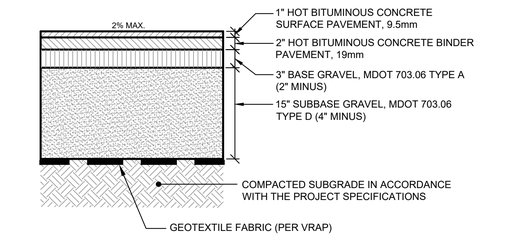
N.T.S.



NOTE:
WHEN PARKING IS ON A CURVE THE NARROWEST PORTION OF THE PARKING STALL SHALL MEET THE WIDTH SHOWN.

(B) STANDARD PARKING STALL STRIPING

N.T.S.

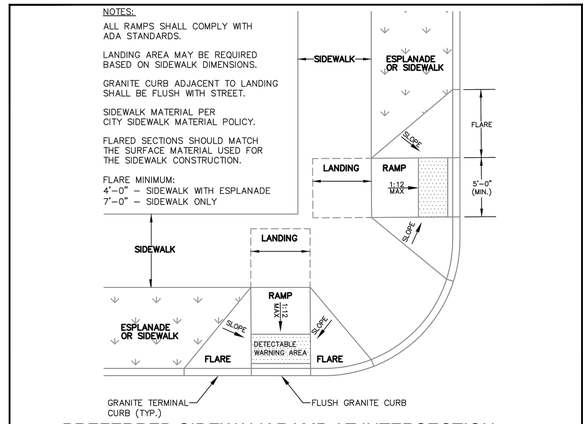


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION.
3. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. 2% MAXIMUM CROSS SLOPE ON ALL SIDEWALKS AND DRIVEWAYS.

(E) STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT SECTION

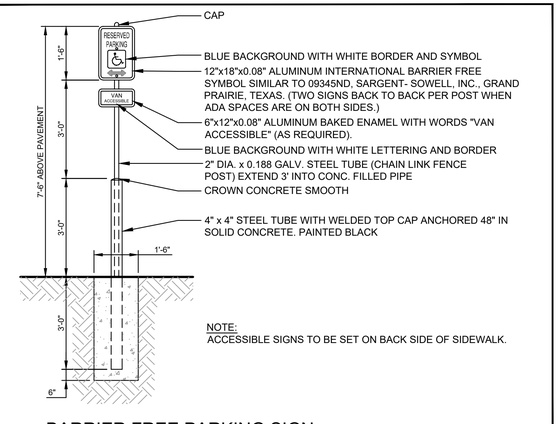
N.T.S.



(H) PREFERRED SIDEWALK RAMP AT INTERSECTION

N.T.S.

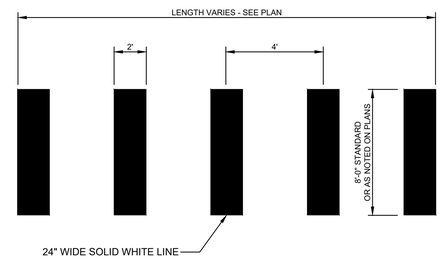
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTE:
ACCESSIBLE SIGNS TO BE SET ON BACK SIDE OF SIDEWALK.

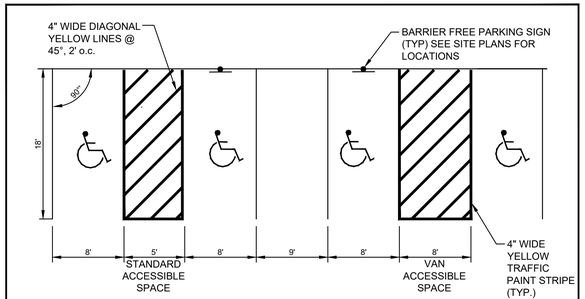
(K) BARRIER FREE PARKING SIGN

N.T.S.



(C) CROSSWALK STRIPING DETAIL

N.T.S.

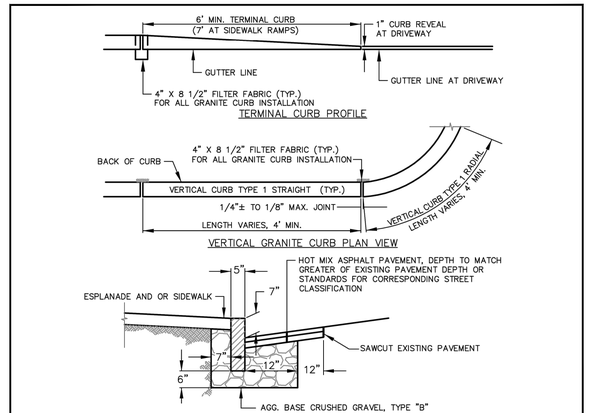


NOTES:

1. ONE IN EIGHT BARRIER FREE SPACES (MIN.) MUST BE VAN ACCESSIBLE. THIS HAS BEEN PROVIDED FOR ON THE SITE LAYOUT PLAN.
2. BARRIER FREE GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN PARKING STALL. SYMBOL TO BE PAINTED ON BLUE NON-SKID BACKGROUND.

(F) TYPICAL BARRIER FREE PARKING STALL DIMENSIONS

N.T.S.



(I) VERTICAL GRANITE CURB INSTALLATION IN EXIST. STREETS

N.T.S.

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STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

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Drawing Name: SITE DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.0

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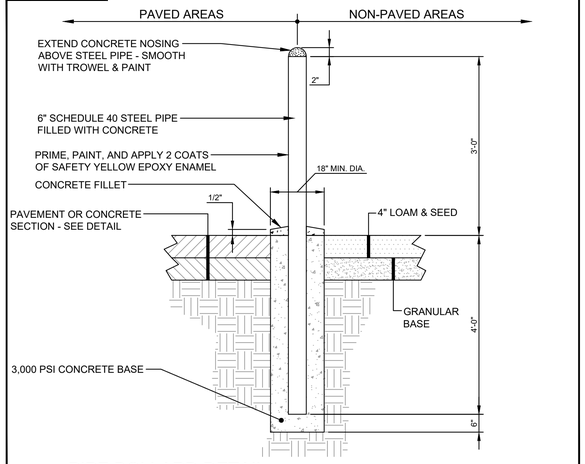
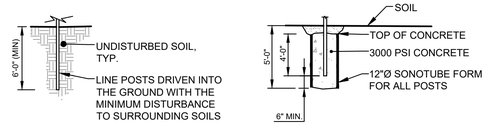


A PIPE BOLLARD DETAIL
N.T.S.



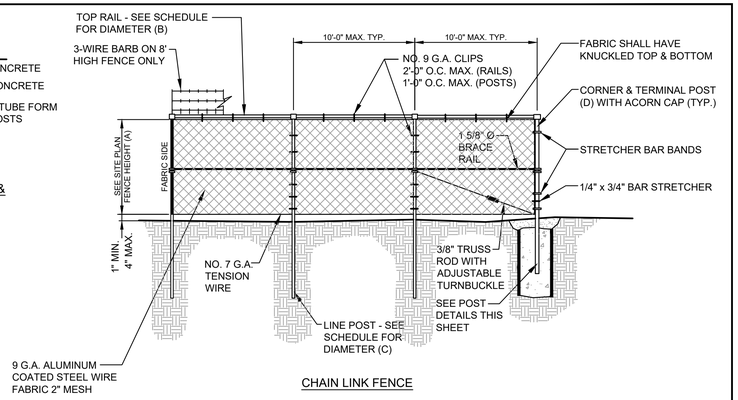
INTERMEDIARY LINE POST DETAIL

TERMINAL, CORNER & GATE POST DETAIL

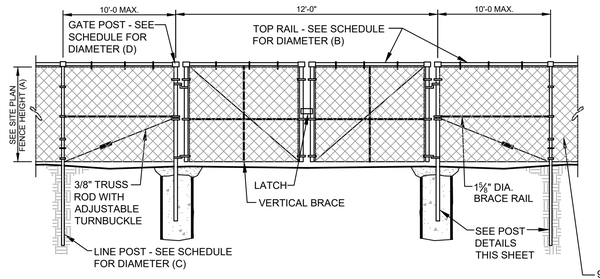
POST DIAMETER SCHEDULE	
GATE SIZE	PIPE DIAMETER
6' AND LESS	3" O.D., 5.79 LBS/FT
6' TO 10'	4" O.D., 9.10 LBS/FT

CHAIN LINK FENCE INSTALLATION SCHEDULE			
FENCE HEIGHT (A)	TOP RAIL PIPE DIA. (B)	LINE POST PIPE DIA. (C)	CORNER, TERMINAL & GATE POST PIPE DIA. (D)
4'	1.66"	1.90"	2.375"
6'	1.66"	1.90"	2.375"
8'	1.66"	2.375"	2.875"
10'	1.66"	2.875"	2.875"

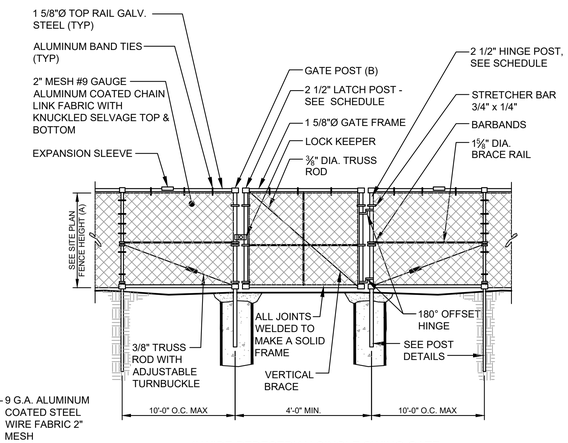
NOTES:
1. DIMENSIONS FOR PIPE DIAMETERS ARE NOMINAL OUTSIDE DIAMETERS.
2. REFER TO PLANS FOR LOCATION & HEIGHT OF FENCES TO BE INSTALLED.
3. REFER TO PLANS FOR GATE WIDTH AT EACH INSTALLATION.
4. ALL FENCE FABRIC, POSTS AND HARDWARE SHALL BE BLACK VINYLCOATED.



CHAIN LINK FENCE

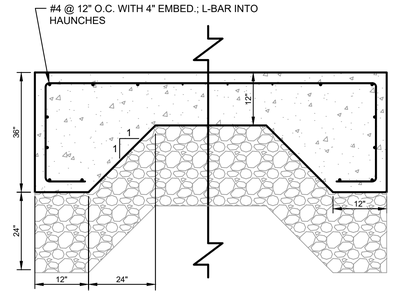


12' WIDE DOUBLE SWINGING GATE



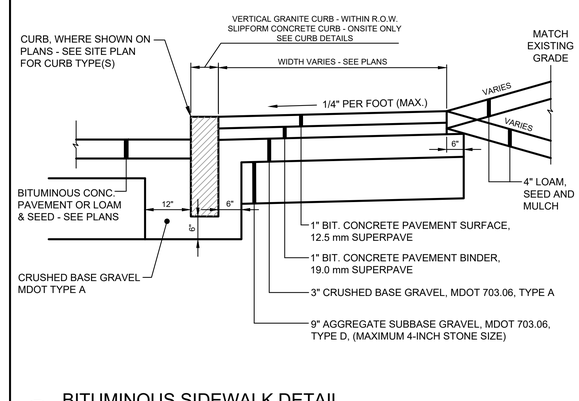
4' WIDE PEDESTRIAN SINGLE SWING GATE

C CHAIN LINK FENCE AND GATES
N.T.S.



NOTES:
1. SEE SITE LAYOUT PLAN FOR PAD DIMENSIONS.
2. 24" BASE GRAVEL SHALL BE MDOT 703.06 STANDARDS FOR TYPE D GRAVEL.
3. CONCRETE PAD SHALL HAVE COMPRESSIVE STRENGTH OF 4,500 PSI.
4. PROVIDE BROOM FINISH AND SALTGUARD™ CHLORIDE INHIBITOR.

E CONCRETE GENERATOR PAD DETAIL
N.T.S.

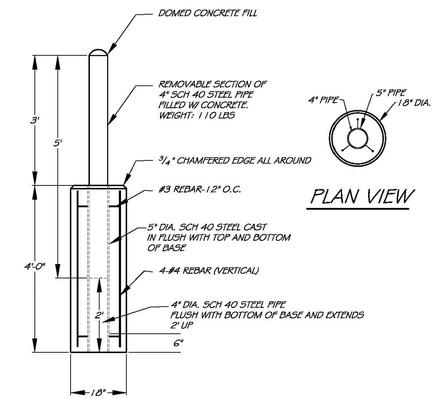


F BITUMINOUS SIDEWALK DETAIL
N.T.S.

George R. Roberts Co.
Precast Concrete Products
192 Biddeford Rd.
Alfred, Maine 04002
(207)-324-6571
(207)-324-8533

18" DIA. x 4' PIPE BOLLARD- 4" PIPE

CONTRACTOR: SHAW BROS	4/23/19
ENGINEER:	REVISION:
JOB: ROCK ROW	

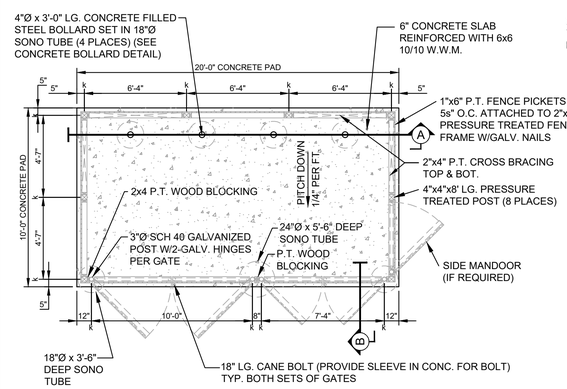


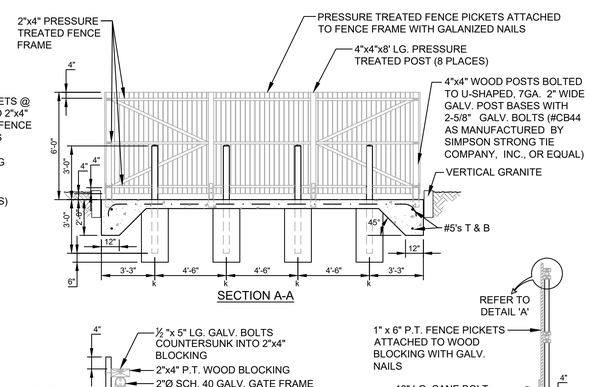
PLAN VIEW

BOLLARD ELEVATION

NOTES:
1.) CONCRETE: 5,000 PSI @ 28 DAYS.
2.) CEMENT: TYPE III PER ASTM C150-81.

B REMOVABLE PIPE BOLLARD DETAIL
N.T.S.





D DUMPSTER ENCLOSURE PLAN AND DETAILS
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: SITE DETAILS
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654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.1

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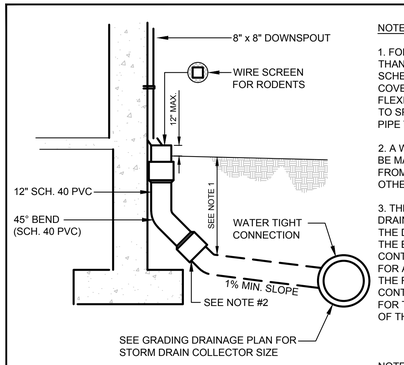


NOTES:

1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.

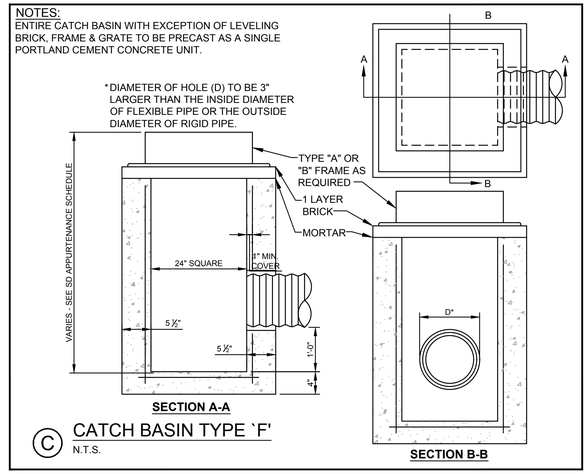
2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

NOTE:
ARCHITECT MAY ELECT TO USE INTERNAL ROOF DRAINS - REFER TO ARCHITECTURAL PLANS

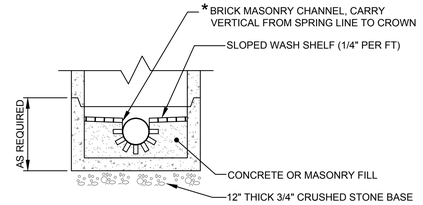
(A) ROOF DRAIN DETAIL
N.T.S.

NOTES:
ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK, FRAME & GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT.



(C) CATCH BASIN TYPE `F'
N.T.S.

*NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



NOTES:

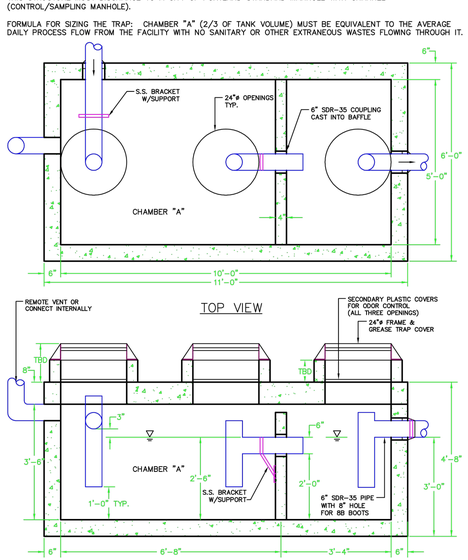
1. BRICK CHANNEL TO BE AASHTO M-91-42 GRADE SA SEWER BRICK *
2. MANHOLE TEST TO BE ACCOMPLISHED AFTER CHANNEL INSTALLATION IS COMPLETE.
3. WHERE THE ALIGNMENT CHANGES OR SIDE FLOW ENTERS THE MANHOLE, CONSTRUCT CHANNEL WITH A SMOOTH RADIAL CHANNEL TO ACCOMPLISH ALL JUNCTIONAL CHANGE OF ALIGNMENT WITHIN MANHOLE.

(F) MANHOLE BRICK CHANNEL INSTALLATION DETAIL
N.T.S.

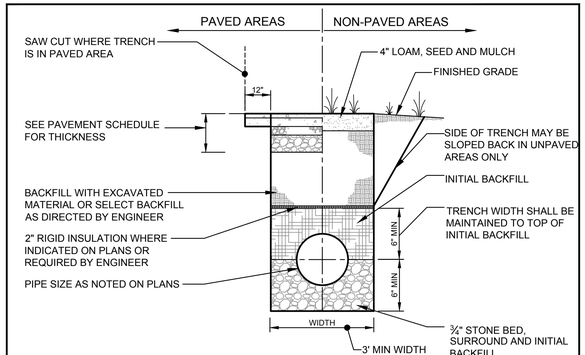
DESIGN NOTES:
1. CONCRETE 5000 PSI AT 28 DAYS.
2. H-20 LOADING
3. JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT (ASSHTO M-19)
4. ALL TEES/BAFFLES PROVIDED BY PRECAST.

THIS STRUCTURE MUST DISCHARGE TO A CITY OF PORTLAND STANDARD MANHOLE WITH CHANNEL (CONTROL/SAMPLING MANHOLE).

FORMULA FOR SIZING THE TRAP: CHAMBER "A" (2/3 OF TANK VOLUME) MUST BE EQUIVALENT TO THE AVERAGE DAILY PROCESS FLOW FROM THE FACILITY WITH NO SANITARY OR OTHER EXTRANEOUS WASTES FLOWING THROUGH IT.

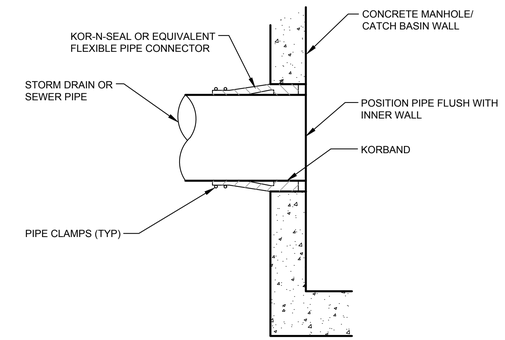


(B) CITY STANDARD GREASE TRAP DETAIL
N.T.S.

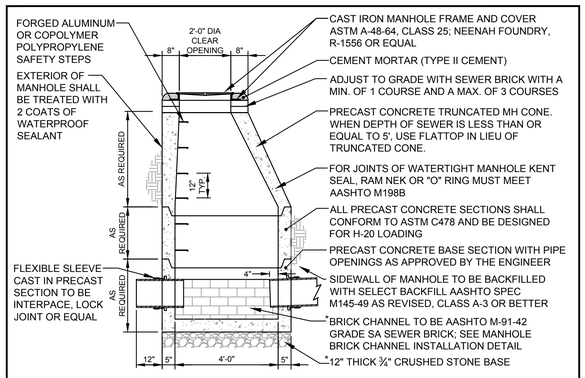


NOTE:
BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

(D) TYPICAL SEWER AND STORM DRAIN TRENCH SECTION
N.T.S.

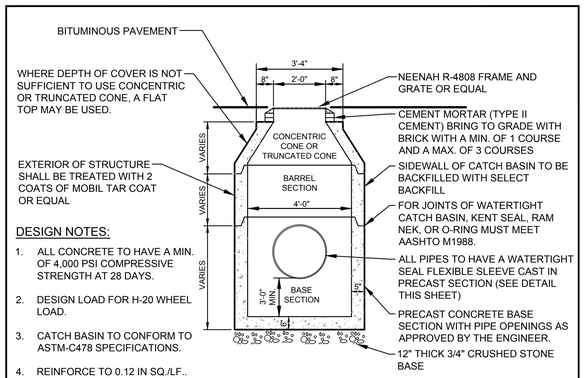


PIPE CONNECTION TO PRECAST CONCRETE SANITARY SEWER AND STORM DRAINAGE STRUCTURES (G)
N.T.S.



(E) 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL
N.T.S.

NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL



DESIGN NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

(H) 4'-0" PRECAST CATCH BASIN DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

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1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: STORM DRAIN & UTILITY DETAILS
Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine
Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.2

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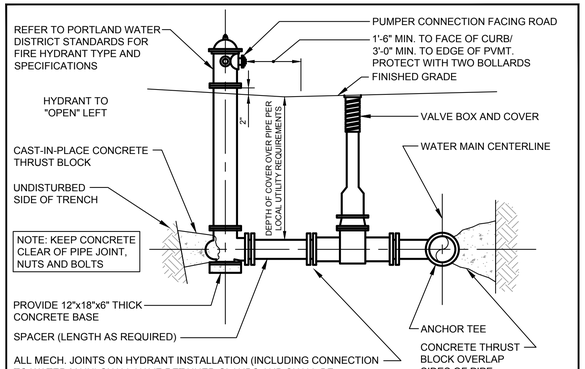


(A) FIRE HYDRANT INSTALLATION DETAIL
N.T.S.

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.

2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.

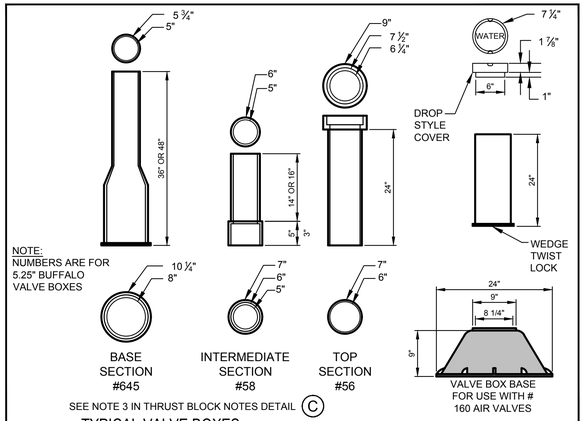
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.

4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING.^{TM}

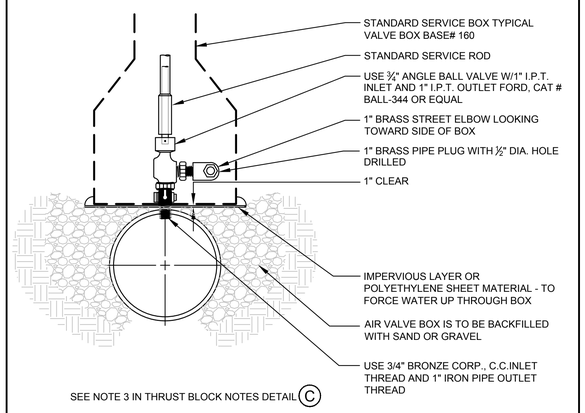
BEARING SURFACE REQUIRED IN SQUARE FEET

PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
6"/8"	5.0	5.0	5.0	6.5	5.0
12"	11.5	11.5	11.5	20.0	22.0

(C) THRUST BLOCK NOTES
N.T.S.



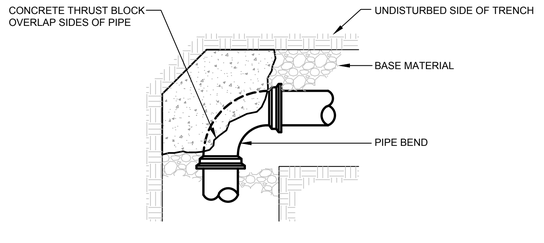
(E) TYPICAL VALVE BOXES
N.T.S.



TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT-LB.	LENGTH OF WRENCH IN *
2 - 3	5/8	45 - 60	8
4 - 24	3/4	75 - 90	10
30 - 36	1	85 - 100	12
42 - 48	1 1/4	105 - 120	14

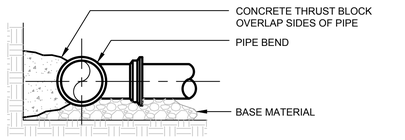
* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

(H) TYPICAL AIR VALVE SECTION (1")
N.T.S.



PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

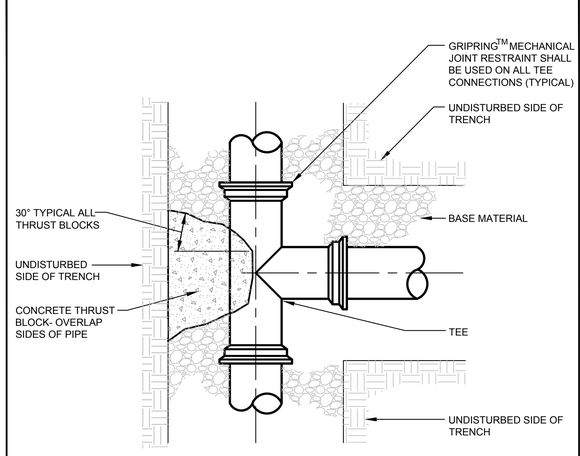
THRUST/RETAINER GLAND SCHEDULE		
¼ BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK WITH GRIPRING^{TM} MECHANICAL JOINT RESTRAINT
⅛ BEND	(45°)	THRUST BLOCK w/ GRIPRING^{TM}
1/16 BEND	(22 ½°)	THRUST BLOCK w/ GRIPRING^{TM}
1/32 BEND	(11 ¼°)	THRUST BLOCK w/ GRIPRING^{TM}

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

NOTES:

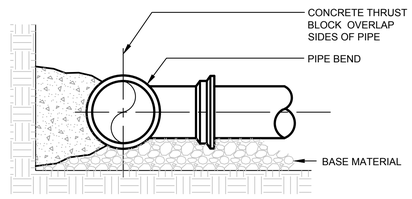
1. THE PORTLAND WATER DISTRICT MAY HAVE INSPECTION FEES AND REQUIRE OBSERVATION OF ALL PIPING INSTALLATION BEFORE BURIAL. REFER TO SPECIFICATIONS.
2. FOR WATER MAIN LAYOUT SEE UTILITY PLAN, SHEET C-6.0.
3. FOR WATER MAIN TRENCH SEE DETAILS ON THIS SHEET.
4. REFER TO PORTLAND WATER DISTRICT SPECIFICATIONS FOR TESTING AND CHLORINATION REQUIREMENTS.
5. ALL HYDRANTS AND VALVES TO BE EPOXY COATED, NUTS AND BOLTS TO BE STAINLESS STEEL.
6. SERVICE RODS FOR DOMESTIC SERVICE OR AIR VALVES TO BE STAINLESS STEEL.

(B) TYPICAL THRUST BLOCK PLACEMENT BENDS
N.T.S.



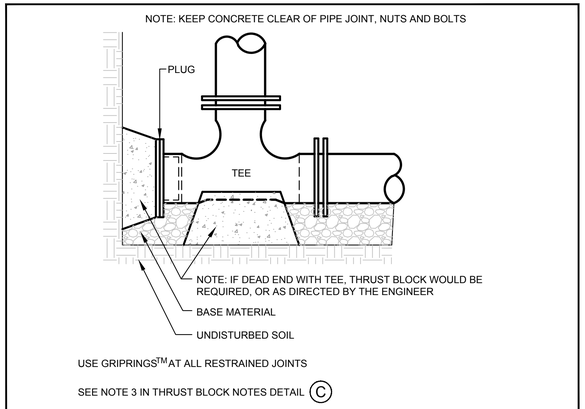
PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

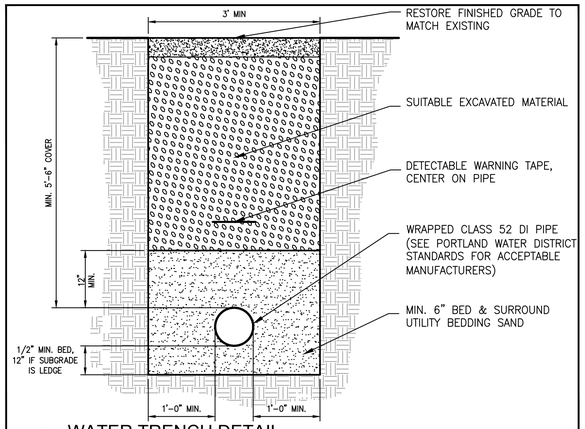


SECTION

(D) TYPICAL THRUST BLOCK PLACEMENT ON TEES
N.T.S.



(F) STANDARD TEE BLOCKING DETAIL
N.T.S.



(G) WATER TRENCH DETAIL
N.T.S.

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STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED
PROFESSIONAL ENGINEER

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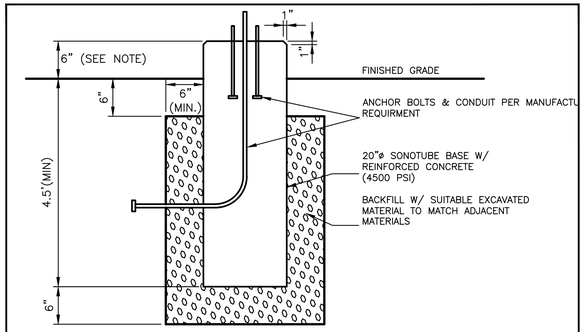
Drawing Name: WATER DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.3

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-DETAILS.dwg - 8/30/2021 4:21 PM

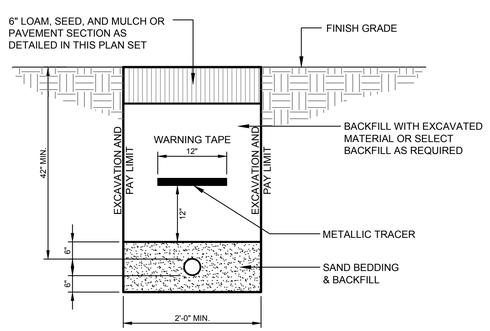


NOTES:

1. ALL LIGHT POLE BASES TO BE SET 6" ABOVE GRADE (MINIMUM) AND LIGHT BOLLARD BASES SHALL BE SET 3" ABOVE GRADE. OR AS DESCRIBED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL CONFIRM PRIOR TO ANY POLE INSTALLATIONS.
2. BASE SIZE TO BE CONFIRMED WITH THE LIGHT POLE SUPPLIER.

(A) TYPICAL PARKING LOT LIGHTING POLE FOUDATION

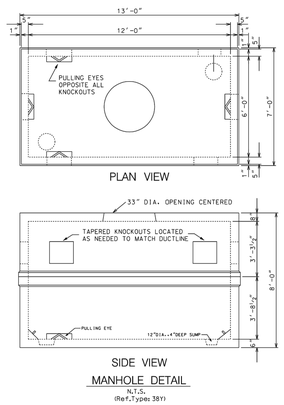
N.T.S.



NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

(B) GAS SERVICE TRENCH SECTION

N.T.S.

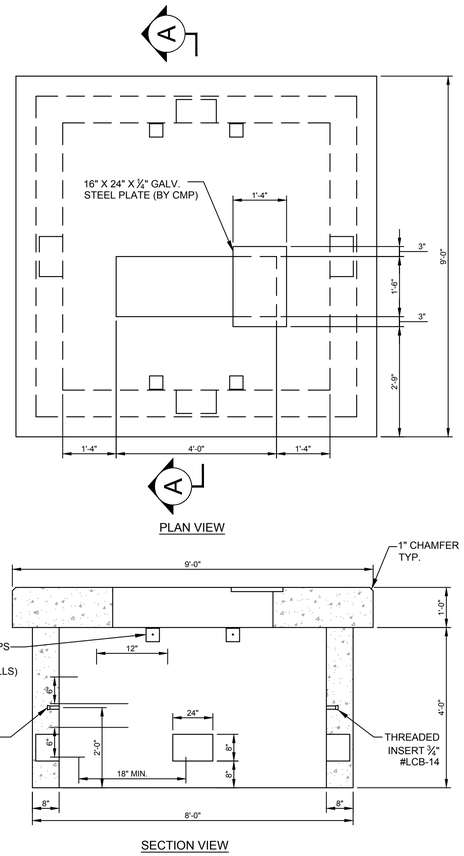


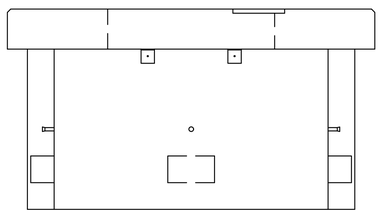
NOTES

1) Vault shall be designed to withstand H20 wheel loading with 6 inches of overburden. The design shall also comply with the strength requirements of National Electrical Safety Code Section 323A. Provide shop drawings stamped by a State of Maine Licensed Professional Engineer upon Request.
2) Joints sealed with asphalt.
3) Mountings for cable racks etc. cost in wall by further plans or field located.
4) Manhole shall be set on a suitable gravel base.
5) Cables are to be racked along one wall only.

(C) PRECAST CONCRETE 38Y MANHOLE

N.T.S.



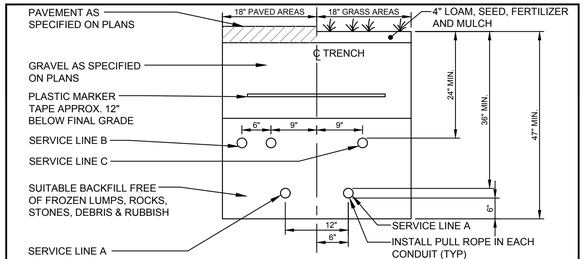


NOTES:

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT.
2. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS, AS MANUFACTURED BY SUPERIOR CONCRETE OR EQUAL.
3. FINAL SIZING TO BE BY ELECTRICAL DESIGNER.
4. ONE 8" x 24" KNOCKOUT PROVIDED EACH WALL.
5. FOR 750 - 5000 KVA THREE PHASE TRANSFORMER.
6. FINISH GRADE SHALL BE GRADED TO ALLOW SURFACE WATER TO FLOW AWAY FROM THE PAD.

(D) 9'-0" TRANSFORMER PAD

N.T.S.

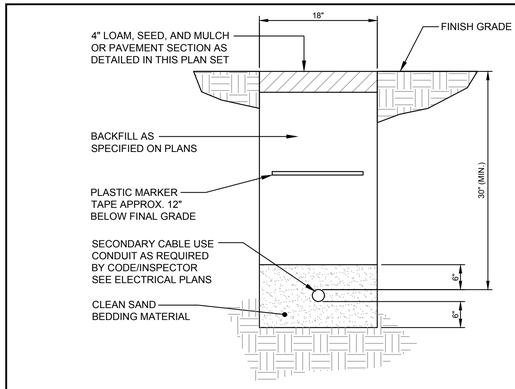


NOTES:

1. FOR CONDUIT TYPES AND SIZES SEE ELECTRICAL PLAN

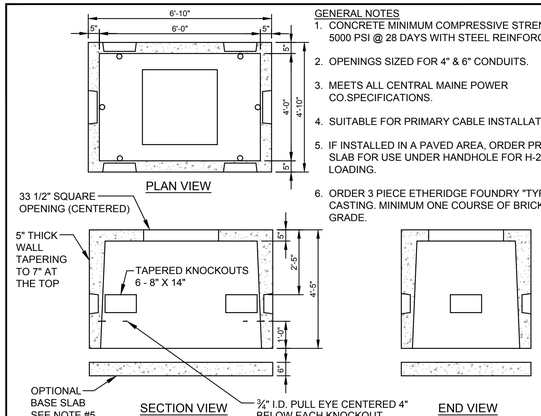
(E) UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS

N.T.S.



(F) SECONDARY ELECTRICAL TRENCH DETAIL

N.T.S.



GENERAL NOTES

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 5000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT
2. OPENINGS SIZED FOR 4" & 6" CONDUITS.
3. MEETS ALL CENTRAL MAINE POWER CO.SPECIFICATIONS.
4. SUITABLE FOR PRIMARY CABLE INSTALLATIONS.
5. IF INSTALLED IN A PAVED AREA, ORDER PRECAST SLAB FOR USE UNDER HANDHOLE FOR H-20 LOADING.
6. ORDER 3 PIECE ETHERIDGE FOUNDRY "TYPE B" CASTING. MINIMUM ONE COURSE OF BRICK TO GRADE.

(G) SPLICE BOX DETAIL

N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE — STEPHEN R. BUSHEY — 08.31.21 — LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		

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Drawing Name: ELECTRIC & UTILITY DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.4

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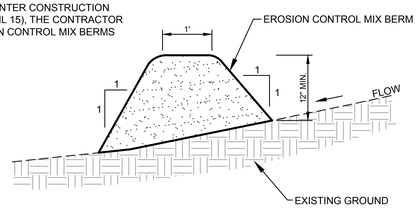
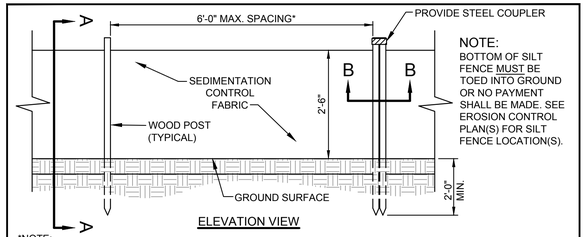
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- PH SHALL FALL BETWEEN 5.0 AND 8.0.

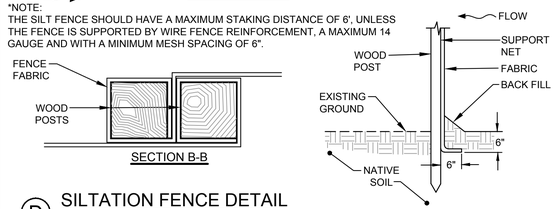
(A) EROSION CONTROL MIX BERM DETAIL
N.T.S.



NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND OR NO PAYMENT SHALL BE MADE. SEE EROSION CONTROL PLAN(S) FOR SILT FENCE LOCATION(S).

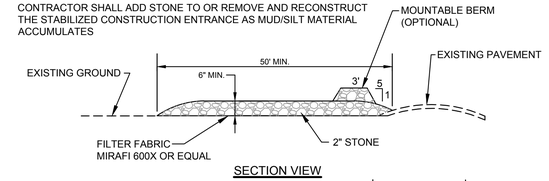
ELEVATION VIEW

*NOTE:
THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6', UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT, A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".

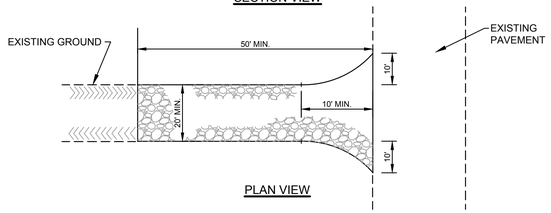


(D) SILTATION FENCE DETAIL
N.T.S.

NOTE:
CONTRACTOR SHALL ADD STONE TO OR REMOVE AND RECONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES

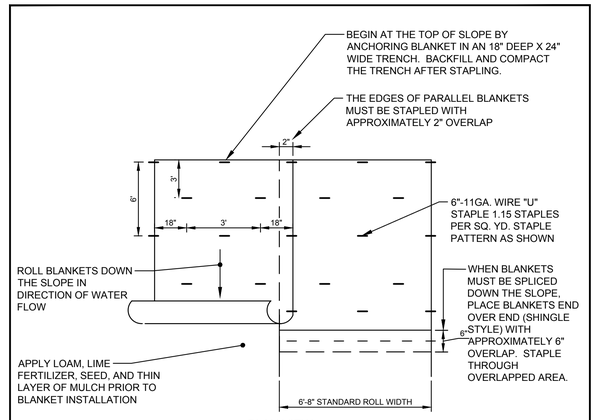


SECTION VIEW

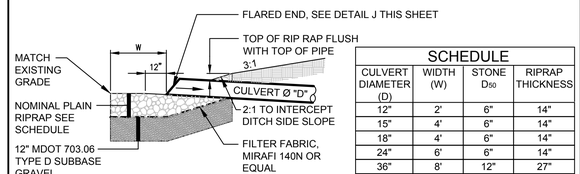


PLAN VIEW

(G) STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



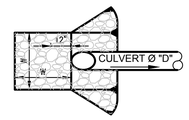
PLAN VIEW



SECTION VIEW

SCHEDULE

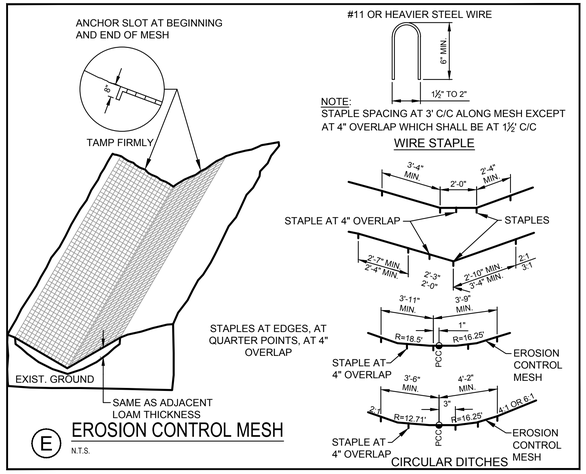
CULVERT DIAMETER (D)	WIDTH (W)	STONE D_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"



PLAN VIEW

(B) PIPE/CULVERT INLET APRON
N.T.S.

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

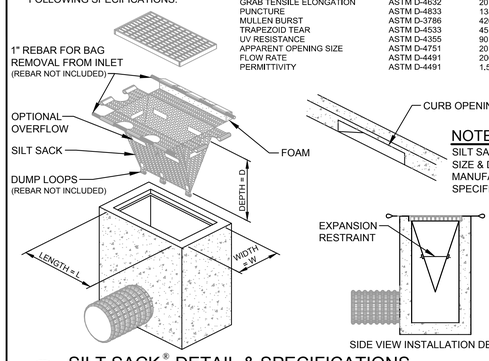


(E) EROSION CONTROL MESH
N.T.S.

NOTE: THE SILT SACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

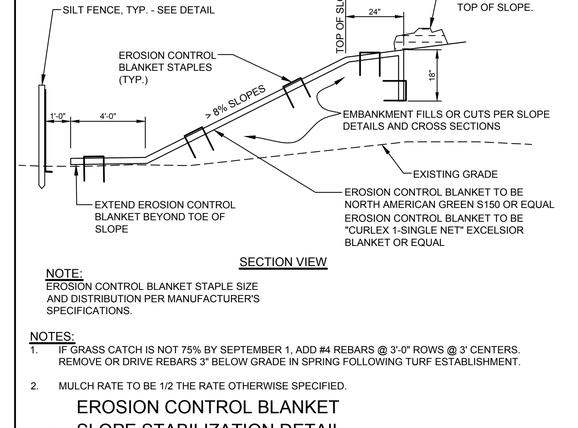
HIGH-FLOW SILT SACK ® (FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1



NOTE:
SILT SACK ® SIZE & DIMENSIONS PER MANUFACTURER'S SPECIFICATIONS.

(H) SILT SACK® DETAIL & SPECIFICATIONS
N.T.S.

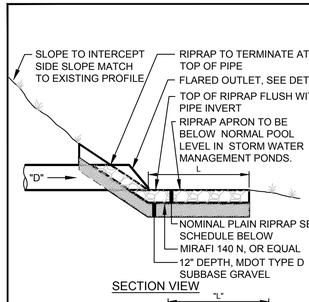


SECTION VIEW

NOTE:
EROSION CONTROL BLANKET STAPLE SIZE AND DISTRIBUTION PER MANUFACTURER'S SPECIFICATIONS.

NOTES:
1. IF GRASS CATCH IS NOT 75% BY SEPTEMBER 1, ADD #4 REBARS @ 3'-0" ROWS @ 3' CENTERS. REMOVE OR DRIVE REBARS 3" BELOW GRADE IN SPRING FOLLOWING TURF ESTABLISHMENT.
2. MULCH RATE TO BE 1/2 THE RATE OTHERWISE SPECIFIED.

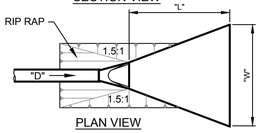
(J) EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL
N.T.S.



SECTION VIEW

SCHEDULE

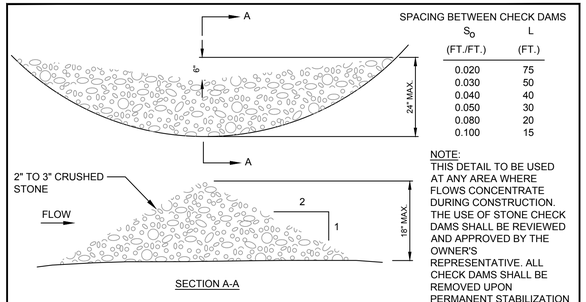
CULVERT DIAMETER (D)	WIDTH (W)	LENGTH (L)	STONE D_{50}	RIPRAP THICKNESS
12"	8'	10'	6"	14"
15"	8'	10'	6"	14"
18"	10'	14'	6"	14"
24"	12'	16'	9"	21"
30"	12'	16'	12"	27"
36"	20'	24'	12"	27"
42"	24'	26'	12"	27"
48"	28'	32'	12"	27"



PLAN VIEW

(C) PIPE/CULVERT OUTLET APRON
N.T.S.

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.

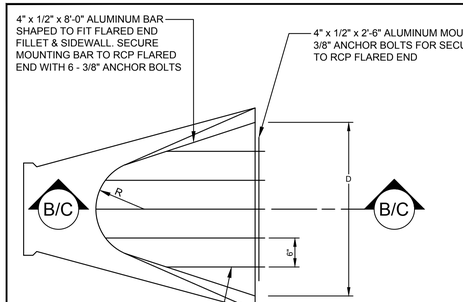


SPACING BETWEEN CHECK DAMS

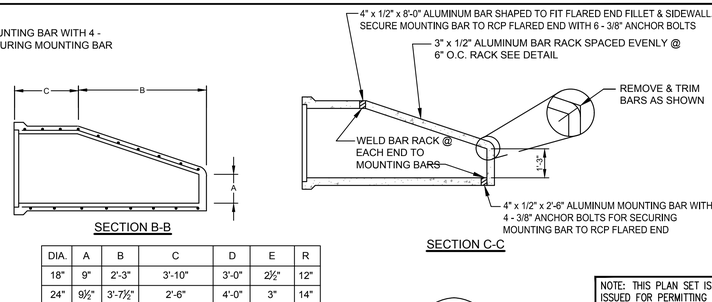
S_O (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15

NOTE:
THIS DETAIL TO BE USED AT ANY AREA WHERE FLOWS CONCENTRATE DURING CONSTRUCTION. THE USE OF STONE CHECK DAMS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL CHECK DAMS SHALL BE REMOVED UPON PERMANENT STABILIZATION OF THE SITE.

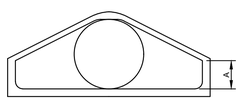
(F) STONE CHECK DAM
N.T.S.



PLAN VIEW - TYP EACH PIPE



DIA.	A	B	C	D	E	R
18"	9"	2'-3"	3'-10"	3'-0"	2½"	12"
24"	9½"	3'-7½"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7¾"	5'-0"	3½"	15"
36"	15"	5'-3"	2'-10¾"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-6"	4½"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"
54"	27"	5'-5"	2'-11"	7'-6"	5½"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"



END VIEW

NOTE:
JOINTS MAY BE FURNISHED WITH EITHER BELL & SPIGOT OR TONGUE & GROOVE ENDS. CULVERT END SECTIONS SHALL CONFORM TO MDOT STANDARD SPECS.

(I) FLARED END WITH BAR RACK DETAIL
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

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Design: SRB	Draft: CDD	Date: JUNE 2021
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Drawing Name: EROSION CONTROL DETAILS

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-8.5

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1.3.5 EROSION CONTROL MEASURES AND SITE STABILIZATION

THE PRIMARY EMPHASIS OF THE EROSION/SEDIMENTATION CONTROL PLAN, WHICH WILL BE IMPLEMENTED FOR THIS PROJECT, IS AS FOLLOWS:

- DEVELOPMENT OF A CAREFUL CONSTRUCTION SEQUENCE.
- RAPID REVEGETATION OF DENUDED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
- RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID RILL AND GULLY EROSION.
- THE USE OF ON-SITE MEASURES TO CAPTURE SEDIMENT (HAY BALES/ STONE CHECK DAMS/SILT FENCE, ETC.)

THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED WITHIN THIS REPORT. FOR FURTHER REFERENCE, SEE THE LATEST EDITION OF THE MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS.

A. DEWATERING

WATER FROM CONSTRUCTION TRENCH DEWATERING SHALL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 50 FEET OF A PROTECTED NATURAL RESOURCE. DEWATERING DISCHARGE SHALL NOT BE DIRECTED ACROSS ADJACENT PROPERTIES IN A CONCENTRATED MANNER.

B. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION.

(a) **INSPECTION AND CORRECTIVE ACTION**. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

(b) **MAINTENANCE**. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

(c) **DOCUMENTATION**. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO CITY STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

C. TEMPORARY EROSION CONTROL MEASURES

TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED BY THIS REPORT AND AS SHOWN ON THE PLAN SET FOR THE PROJECT. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE OWNER, THE CITY OF PORTLAND, OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.

THE FOLLOWING MEASURES ARE PLANNED AS TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

1. CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO EACH CONSTRUCTION AREA.

2. SILTATION FENCE OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF- BORNE SEDIMENTS UNTIL GRASS AREAS ARE REVEGETATED. THE SILT FENCE AND/OR WOOD WASTE COMPOST BERMS SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THIS PACKAGE AND INSPECTED AT LEAST ONCE A WEEK AND BEFORE AND IMMEDIATELY AFTER A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE OR BERM LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. WOOD WASTE COMPOST BERMS ARE NOT TO BE USED ADJACENT TO WETLAND AREAS THAT ARE NOT TO BE DISTURBED.

3. STRAW OR HAY MULCH INCLUDING HYDROSEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND OCTOBER 15TH ON SLOPES OF LESS THEN 15 PERCENT SHALL BE ANCHORED BY APPLYING WATER; MULCH PLACED ON SLOPES OF EQUAL TO OR STEEPER THAN 15 PERCENT SHALL BE COVERED BY A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. FABRIC NETTING AND STAPLES SHALL BE USED ON DISTURBED AREAS WITHIN 50' OF LAKES, STREAMS, AND WETLANDS REGARDLESS OF THE UPSTREAM SLOPE. MULCH PLACED BETWEEN OCTOBER 15TH AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT SHALL BE COVERED WITH A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SLOPES STEEPER THAN 3:1 AND EQUAL TO OR FLATTER THAN 2:1, WHICH ARE TO BE REVEGETATED, SHALL RECEIVE CURLEX BLANKETS BY AMERICAN EXCELSIOR OR EQUAL. SLOPES STEEPER THAN 2:1 SHALL RECEIVE RIPRAP AS NOTED ON THE PLANS. THE MULCH APPLICATION RATE FOR BOTH TEMPORARY AND PERMANENT SEEDING IS 75 LBS PER 1000 SF AS IDENTIFIED IN ATTACHMENT A OF THIS SECTION. MULCH SHALL NOT BE PLACED OVER SNOW.

4. TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:

a) TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN 100 FEET OF ANY WETLANDS WHICH WILL NOT BE DISTURBED AND SHALL BE LOCATED AWAY FROM DRAINAGE SWALES.

b) STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS BY EITHER TEMPORARILY SEEDING THE STOCKPILE BY A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH, SUCH AS HAY, STRAW, OR EROSION CONTROL MIX.

c) STOCKPILES SHALL BE SURROUNDED BY SEDIMENTATION BARRIER AT THE TIME OF FORMATION.

5. ALL DENUDED AREAS THAT ARE WITHIN 100 FEET OF AN UNDISTURBED WETLAND, WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN A BUILDING PAD, PARKING AREA, OR ACCESS DRIVE SUBBASE AREA, SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. IN OTHER AREAS, THE TIME PERIOD MAY BE EXTENDED TO 7 DAYS.

6. FOR WORK, WHICH IS CONDUCTED BETWEEN OCTOBER 15TH AND APRIL 15TH OF ANY CALENDAR YEAR, ALL DENUDED AREAS, SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX, APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 2 DAYS FOR ALL AREAS.

7. MCCAULEY WAY SHALL BE SWEPT TO CONTROL MUD AND DUST AS NECESSARY. ADDITIONAL STONE SHALL BE ADDED TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

8. DURING GRUBBING OPERATIONS STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS AND AS DIRECTED ON THE EROSION CONTROL PLANS.

9. SILT FENCING WITH A MINIMUM STAKE SPACING OF 6 FEET SHALL BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM 14 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHALL BE ANCHORED. A DOUBLE ROW OF SILT FENCE SHALL BE USED ADJACENT TO WETLANDS.

10. WOOD WASTE COMPOST/BARK BERMS MAY BE USED IN LIEU OF SILTATION FENCING. BERMS SHALL BE REMOVED AND SPREAD IN A LAYER NOT TO EXCEED 3" THICK ONCE UPSTREAM AREAS ARE COMPLETED AND A 90% CATCH OF VEGETATION IS ATTAINED.

11. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR APPROVED SEDIMENT BAGS (SUCH AS SILT SACK). INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHALL BE REMOVED AND THE BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE BARRIER. THE BARRIER SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

12. WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MDOT SPECIFICATIONS - SECTION 637 - DUST CONTROL.

13. LOAM AND SEED IS INTENDED TO SERVE, AS THE PRIMARY PERMANENT REVEGETATIVE MEASURE FOR ALL DENUDED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP. APPLICATION RATES ARE PROVIDED IN ATTACHMENT A OF THIS SECTION. SEEDING SHALL NOT OCCUR OVER SNOW.

D. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.) WILL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED. FABRIC NETTING, ANCHORED WITH STAPLES, SHALL BE PLACED OVER THE MULCH IN AREAS AS NOTED IN **TEMPORARY EROSION CONTROL MEASURES** PARAGRAPH 3 OF THIS REPORT. ALL AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

2. ALL STORM DRAIN PIPE OUTLETS SHALL HAVE RIPRAP APRONS AT THEIR OUTLET TO PROTECT THE OUTLET AND RECEIVING CHANNEL FROM SCOUR AND DETERIORATION. INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE APRONS SHALL BE INSTALLED AND STABILIZED TO THE EXTENT PRACTICABLE PRIOR TO DIRECTING RUNOFF TO THE TRIBUTARY PIPE OR CULVERT.

1.4 IMPLEMENTATION SCHEDULE

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO ENSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPTIMIZED:

IT IS ANTICIPATED THAT CONSTRUCTION OF BUILDINGS 2-5 AND RELATED INFRASTRUCTURE WILL COMMENCE IN SUMMER OF 2021 AND BE COMPLETED BY SPRING OF 2022.

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE, THIS SHALL BE ACCOMPLISHED BY LIMITING THE DISTURBED AREA.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ACCESS POINTS FROM PAVED ROADWAYS.

2. INSTALL CATCH BASIN INLET PROTECTION, AND PERIMETER SILT FENCE/WOOD WASTE BERMS PRIOR TO GRUBBING RESPECTIVE AREAS.

3. CLEAR AND GRUB AREA TO BE DEVELOPED. INSTALL STONE CHECK DAMS AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.

4. FOUNDATION PREPARATION AREA SHALL BE EXCAVATED FOR INSTALLATION OF THE BUILDING FOOTINGS. BUILDING WORK WILL BE ON GOING THROUGH THE REMAINDER OF THE PROJECT.

5. COMMENCE INSTALLATION OF DRAINAGE APPURTENANCES.

6. COMMENCE CONSTRUCTION OF PERVIOUS PAVER FILTER/RESERVOIR UP TO CHOKER COURSE, FOCAL POINT FILTERS AND DETENTION PONDS.

7. COMMENCE EARTHWORK AND GRADING TO SUBGRADE.

8. COMMENCE INSTALLATION OF UTILITIES.

9. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.

10. COMPLETE INSTALLATION OF UNDERGROUND UTILITIES TO WITHIN 5' OF THE BUILDINGS.

11. INSTALL LIGHT POLE FOUNDATIONS AND LIGHT POLES.

12. COMPLETE REMAINING EARTHWORK OPERATIONS.

13. COMPLETE INSTALLATION OF CATCH BASINS AND APPURTENANCES.

14. INSTALL SUB-BASE AND BASE GRAVEL WITHIN PARKING FIELDS, WALKWAYS, AND ALL DRIVEWAYS.

15. INSTALL BASE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREA AS WELL AS CONCRETE SURFACES.

16. INSTALL CURBING IN PARKING FIELDS, DRIVEWAYS, AND ALONG THE STREETS AS NEEDED.

17. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.

18. INSTALL PERVIOUS PAVERS AND INFILL STONE, SURFACE COURSE PAVING FOR ACCESS DRIVE AND PARKING AREAS. STRIPE PER PLAN.

19. ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

20. TOUCH UP LOAM AND SEED.

NOTE: ALL DENUDED AREAS NOT SUBJECT TO FINAL PAVING, RIPRAP, OR GRAVEL SHALL BE REVEGETATED.

PRIOR TO CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE FOR THE COMPLETION OF THE WORK, WHICH WILL SATISFY THE FOLLOWING CRITERIA:

1. THE ABOVE CONSTRUCTION SEQUENCE SHOULD GENERALLY BE COMPLETED IN THE SPECIFIED ORDER; HOWEVER, SEVERAL SEPARATE ITEMS MAY BE CONSTRUCTED SIMULTANEOUSLY. WORK MUST ALSO BE SCHEDULED OR PHASED TO REDUCE THE EXTENT OF THE EXPOSED AREAS AS SPECIFIED BELOW. THE INTENT OF THIS SEQUENCE IS TO PROVIDE FOR EROSION CONTROL AND TO HAVE STRUCTURAL MEASURES SUCH AS SILT FENCE AND CONSTRUCTION ENTRANCES IN PLACE BEFORE LARGE AREAS OF LAND ARE DENUDED.

2. THE WORK SHALL BE CONDUCTED IN SECTIONS WHICH SHALL:

a) LIMIT THE AMOUNT OF EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 30 DAYS.

b) REVEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT; OR TEMPORARILY STABILIZED WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL FOR AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND AND 7 DAYS FOR ALL OTHER AREAS. AREAS WITHIN 100 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW.

c) INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEM AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE. THE DITCHES SHALL BE IMMEDIATELY LINED OR REVEGETATED AS SOON AS THEIR INSTALLATION IS COMPLETE.

1.5 EROSION, SEDIMENTATION AND STABILIZATION CONTROL PLAN

THE EROSION CONTROL PLAN IS INCLUDED IN THE PLAN SET.

1.6 DETAILS AND SPECIFICATIONS

THE EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

1.7 WINTER STABILIZATION PLAN

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT; VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT ANY AREA LEFT EXPOSED CAN BE CONTROLLED BY THE CONTRACTOR. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY/PARKING AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR SHALL INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE SHALL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOODWASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

AN AREA SHALL BE CONSIDERED DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%.

MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAT 8%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT SHALL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 1, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT SHALL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

INSTALL A STONE LINING IN THE DITCH --THE APPLICANT SHALL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT SHALL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

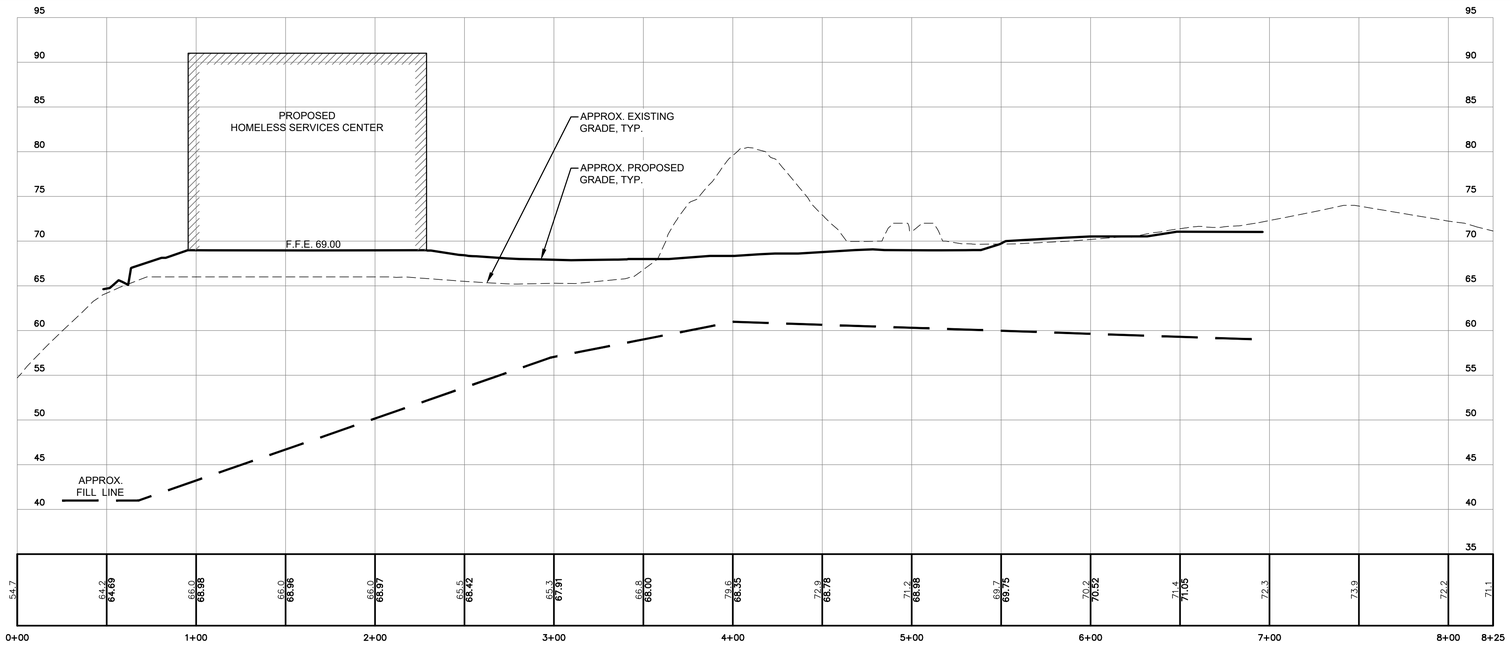
2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT SHALL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT SHALL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. THE DEPARTMENT SHALL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 1, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY SEPTEMBER 1 THE APPLICANT SHALL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT SHALL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT SHALL COVER THE SLOPE WITH A LAYER OF WOODWASTE COMPOST AS DESCRIBED IN ITEM III OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS STANDARD.

STABILIZE THE SLOPE WITH SOD -- THE APPLICANT SHALL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY SEPTEMBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

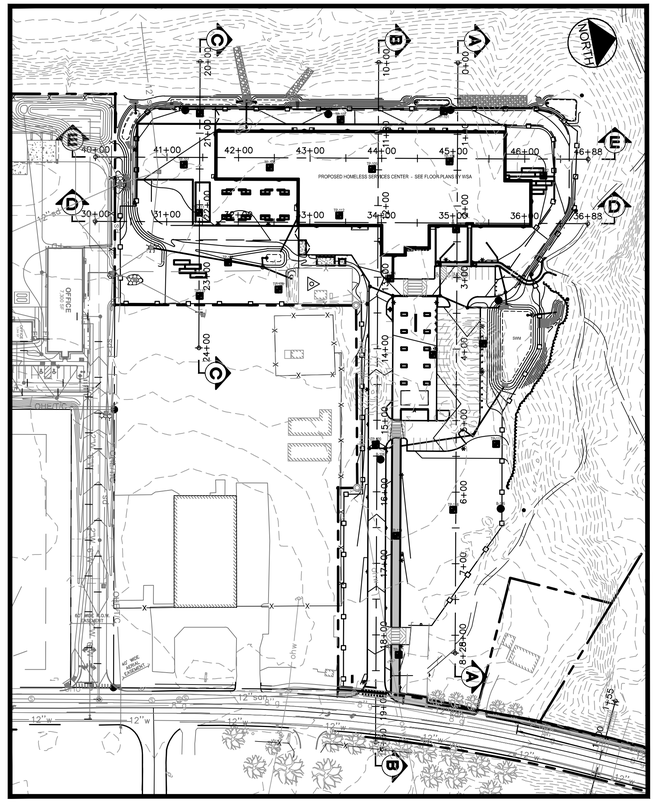
STABILIZE THE SLOPE WITH WOODWASTE COMPOST -- THE APPLICANT SHALL PLACE A SIX-INCH LAYER OF WOODWASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOODWASTE COMPOST, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT SHALL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT SHALL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT SHALL HIRE A REGISTERED PROFESSION



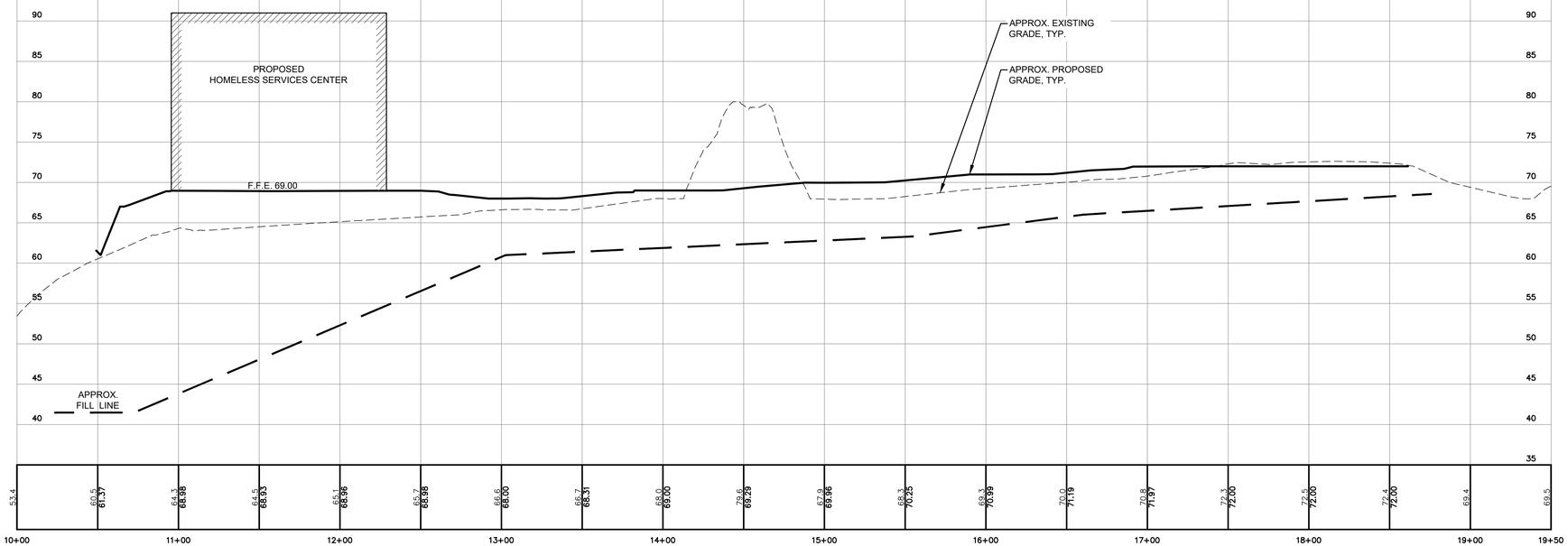
SITE CROSS SECTION A-A

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



ORIENTATION PLAN

SCALE: 1" = 100'



SITE CROSS SECTION B-B

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
3	2021.08.31	FINAL PLAN SUBMISSION FOR APPROVAL
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE CROSS SECTIONS.dwg		

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Drawing Name: SITE CROSS SECTIONS - SHEET 1 OF 2

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-9.1

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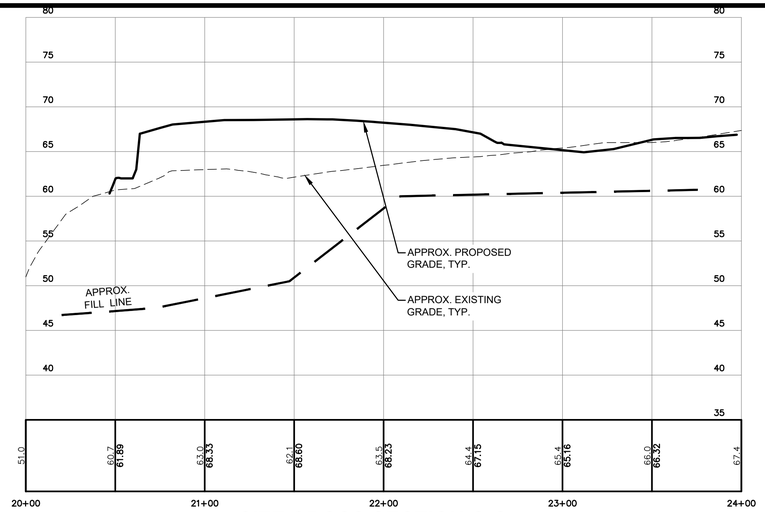
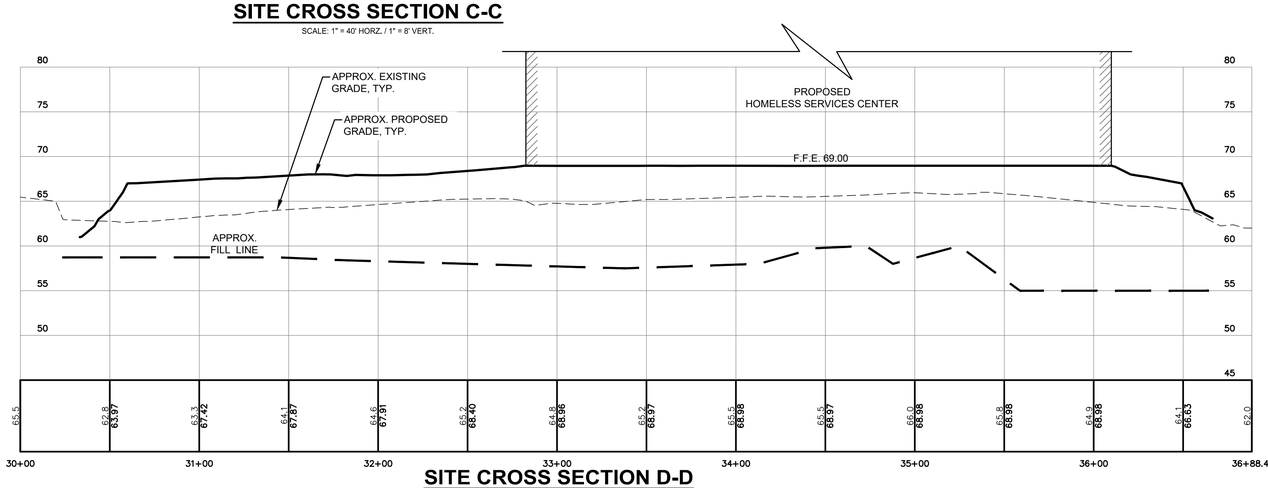


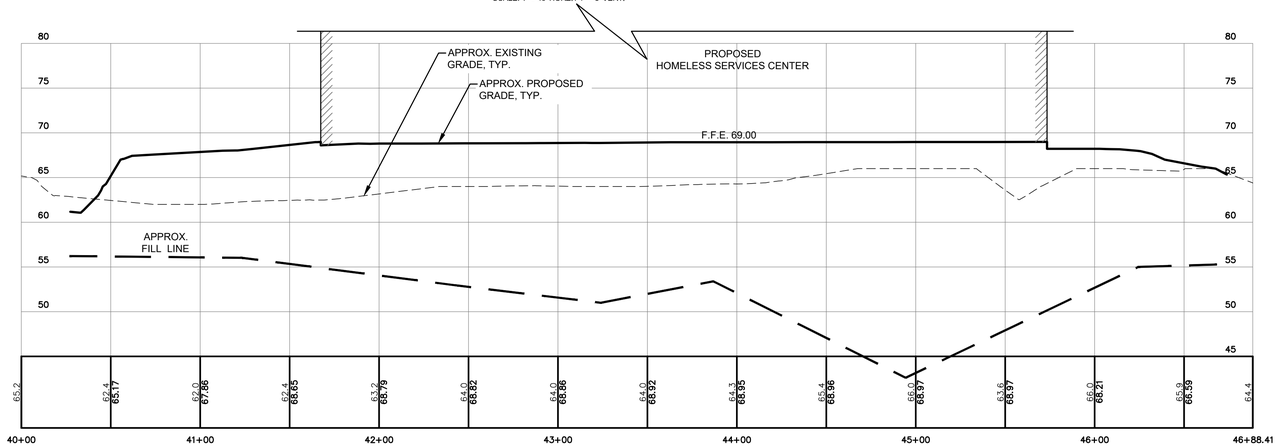
SITE CROSS SECTION C-C

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



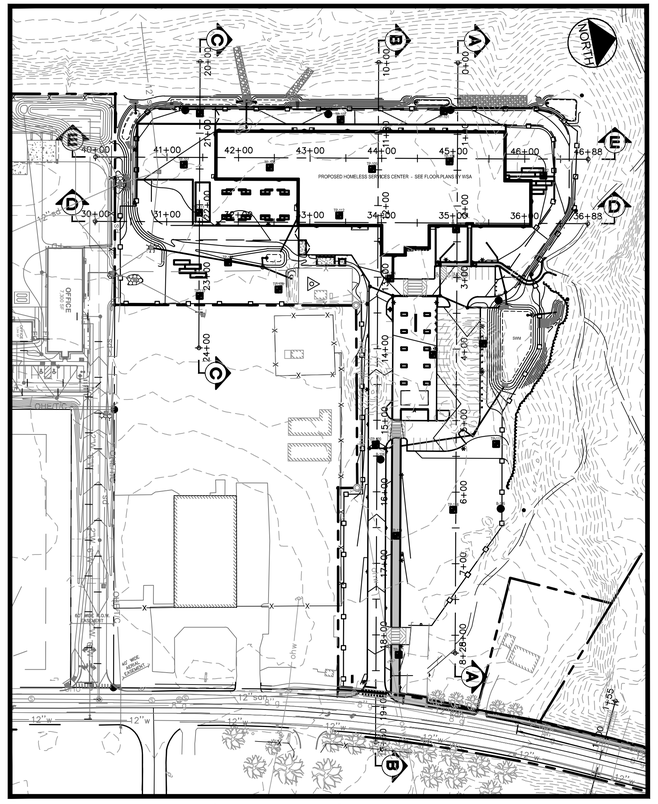
SITE CROSS SECTION D-D

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



SITE CROSS SECTION E-E

SCALE: 1" = 40' HORZ. / 1" = 8' VERT.



ORIENTATION PLAN

SCALE: 1" = 100'

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision
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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SITE CROSS SECTIONS.dwg		

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Drawing Name: SITE CROSS SECTIONS - SHEET 2 OF 2

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-9.2

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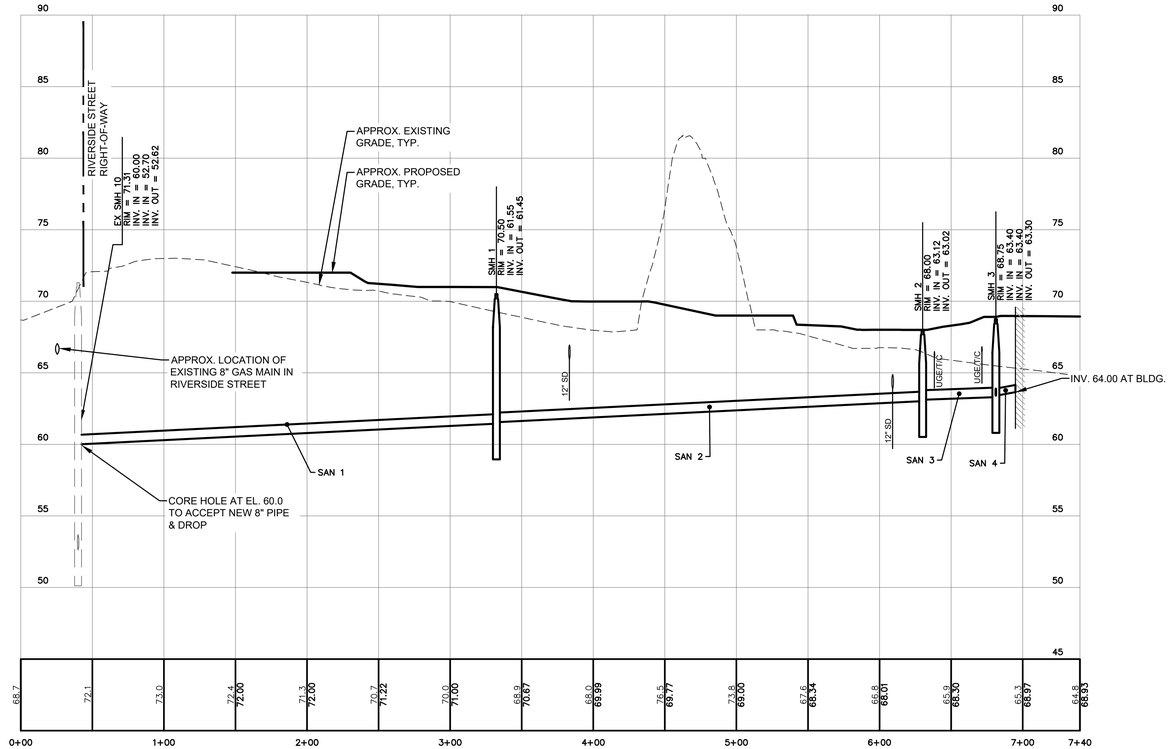

SANITARY SEWER PROFILE

SCALE: 1" = 50' HORZ. / 1" = 5' VERT.

SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)
EX SMH 10	4'ø	71.31	60.00/8"(SMH 1) 52.70/12"(EX SMH 11)	52.62/12"(EX SMH 9)
SMH 1	4'ø	70.50	61.55/8"(SMH 2)	61.45/8"(EX SMH 10)
SMH 2	4'ø	68.00	63.12/8"(SMH 3)	63.02/8"(SMH 1)
SMH 3	4'ø	68.75	63.40/6"(BLDG SEWER) 63.40/6"(GREASE TANK)	63.30/8"(SMH 2)

PIPE TABLE

Pipe Name	Size	Length	Slope
SAN 1	8"	292'	0.50%
SAN 2	8"	298'	0.49%
SAN 3	8"	51'	0.35%
SAN 4	6"	14'	1.82%
SAN 5	6"	6'	1.70%

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

NORTH

50 0 25 50 100

1 inch = 50 ft.

STATE OF MAINE
STEPHEN R. BUSHEY
08.31.21
LICENSED PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
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Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-UTIL.dwg		

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207.772.2515

Drawing Name: UTILITY PROFILES

Project: **Homeless Services Center**
654 Riverside Street, Portland, Maine

Client/Owner: **DC Predevelopment LLC**
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No. C-11.0

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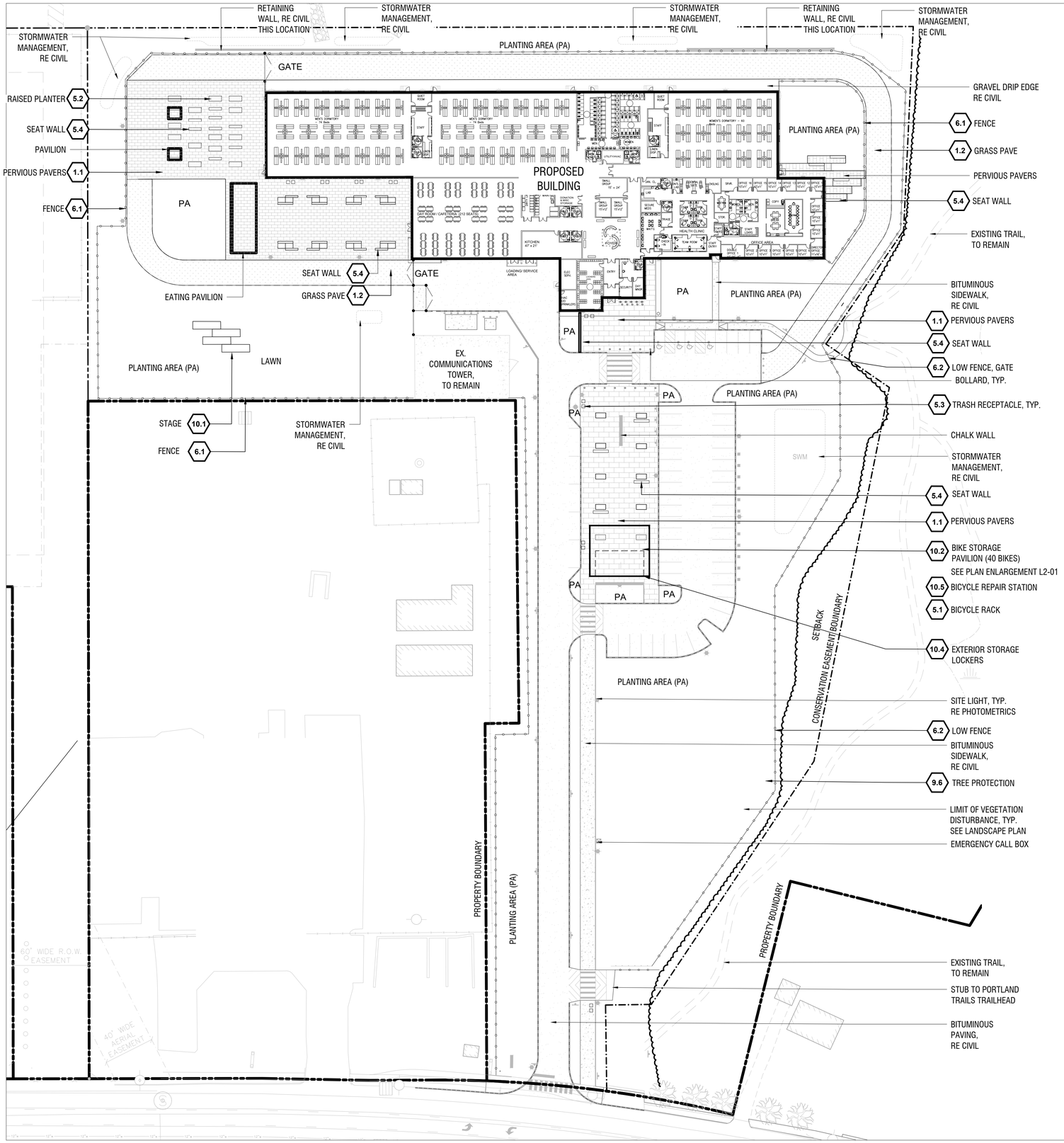

MATERIALS LEGEND

SYMBOL	
	HARDSCAPE; CONCRETE PAVERS A (SF TBD)
	HARDSCAPE; CONCRETE PAVERS B (SF TBD)
	BITUMINOUS PAVING (SF TBD)
	BITUMINOUS SIDEWALK (SF TBD)
	PERVIOUS PAVING (SF TBD)

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

OWNER:
DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

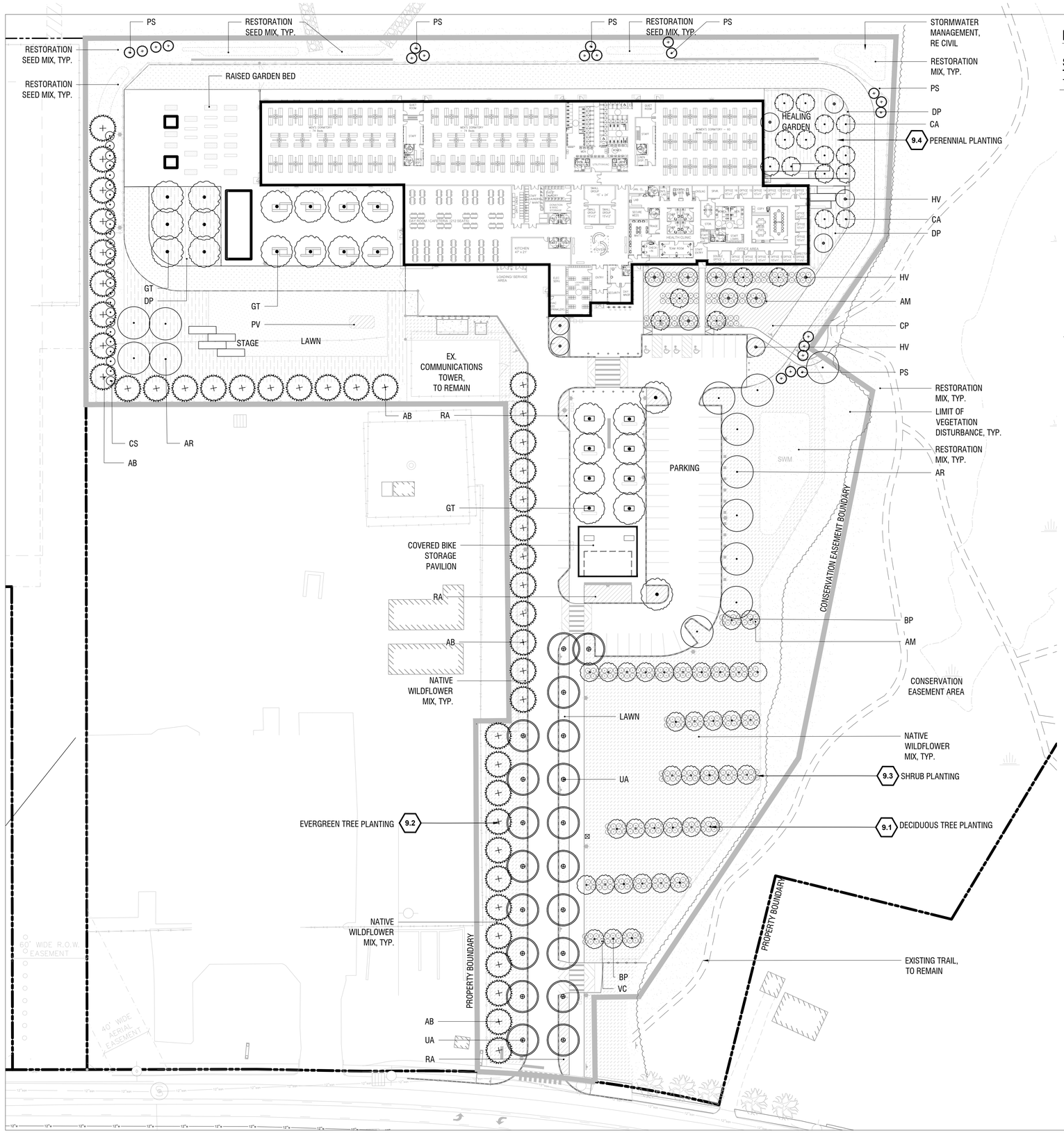
SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AR	ACER RUBRUM	RED MAPLE	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
	UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" MIN	PER PLAN
	PS	PINUS SEMBRA 'CHALET'	CHALET SWISS STONE PINE	TBD	3'-5' HEIGHT	PER PLAN
SHRUBS						
	CS	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
	AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	LOW BLACK CHOKEBERRY	TBD	TBD	PER PLAN
	RA	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	TBD	TBD	PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CP	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN
	MS	MISCANTHUS SINESIS	SILVER GRASS	TBD	TBD	PER PLAN
	PV	PANICUM VIRGATUM	SWITCHGRASS	TBD	TBD	PER PLAN
	PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX "
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
9.2	EVERGREEN TREE PLANTING	2/L3-01
9.3	SHRUB PLANTING	3/L3-01
9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

0 20 40 80

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PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

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MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

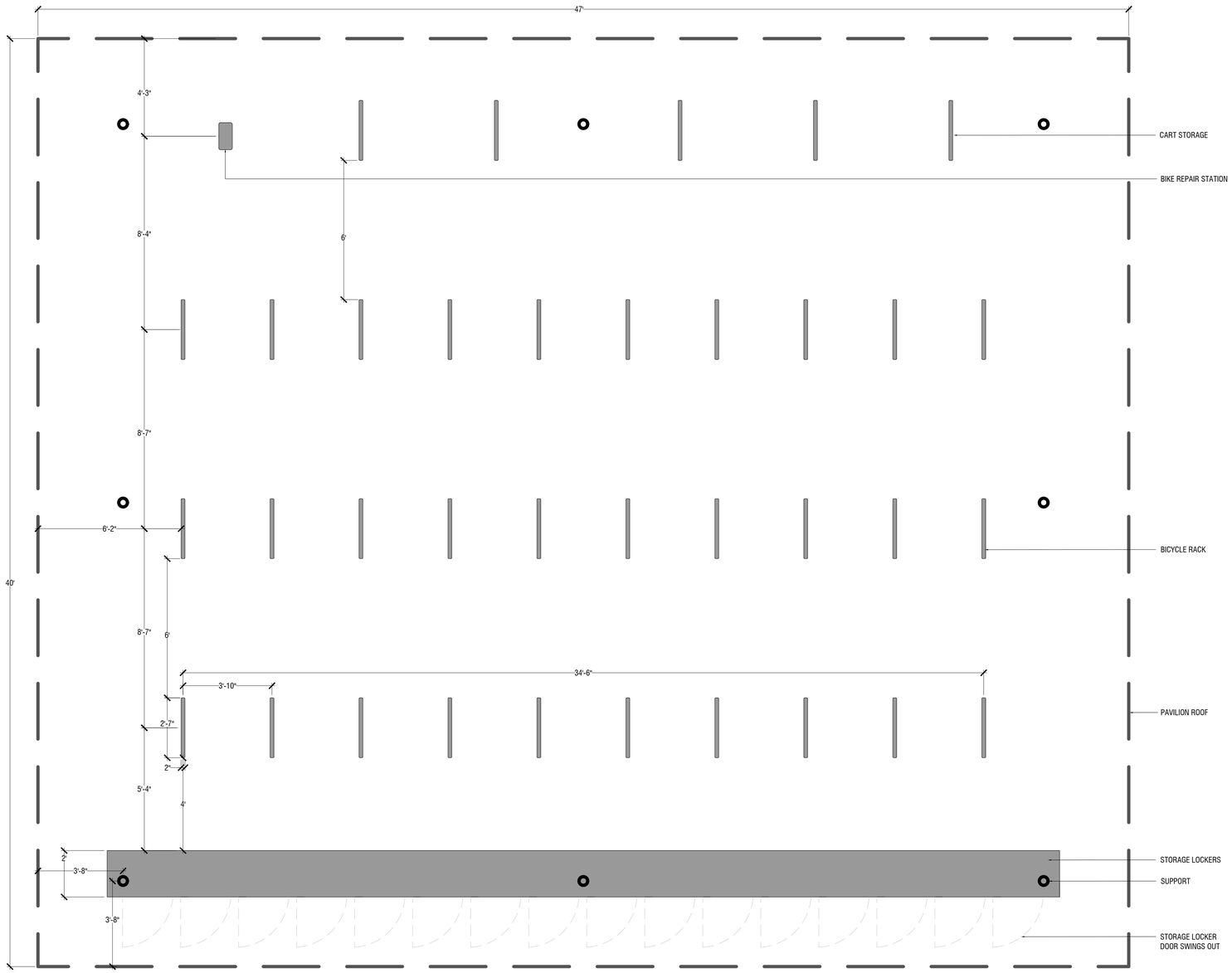
SHEET TITLE

LANDSCAPE PLAN

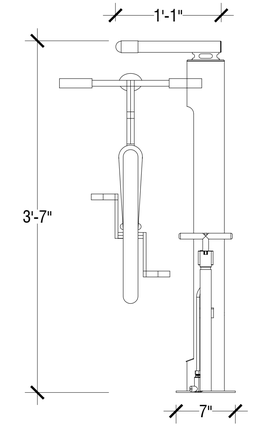
SHEET INFORMATION

L 2-00

NOT FOR CONSTRUCTION



1 BIKE PAVILION PLAN ENLARGEMENT 10.3
NTS



2 BIKE REPAIR STATION 10.5
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
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	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
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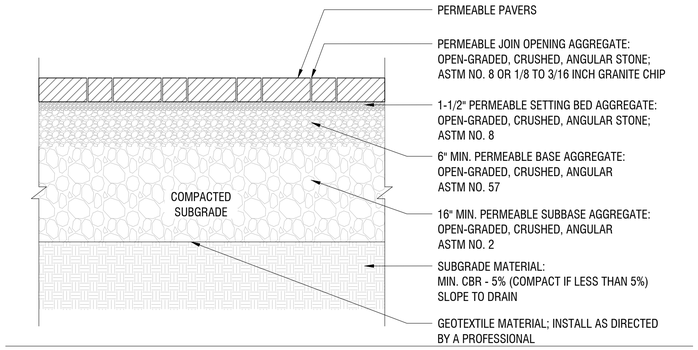
SHEET TITLE

LANDSCAPE
DETAILS

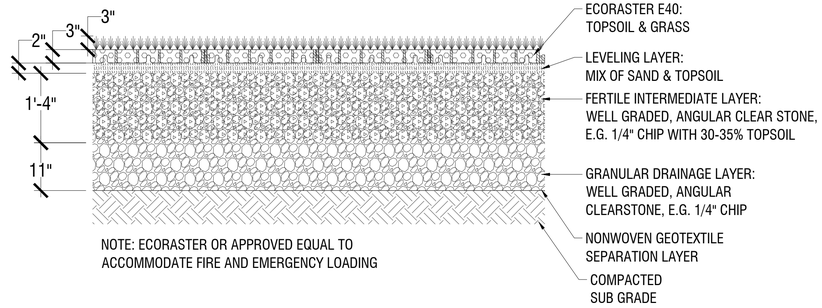
SHEET INFORMATION

L 2-01

NOT FOR CONSTRUCTION

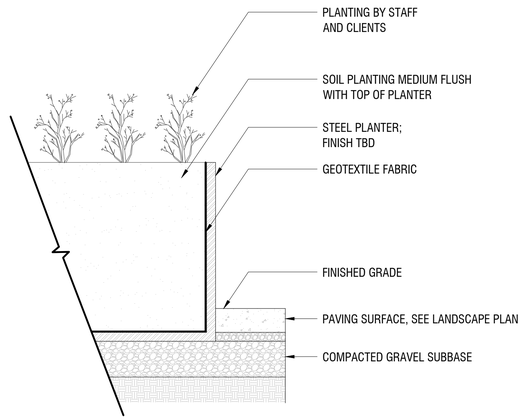


1 CONCRETE PAVERS - PERVIOUS
NTS

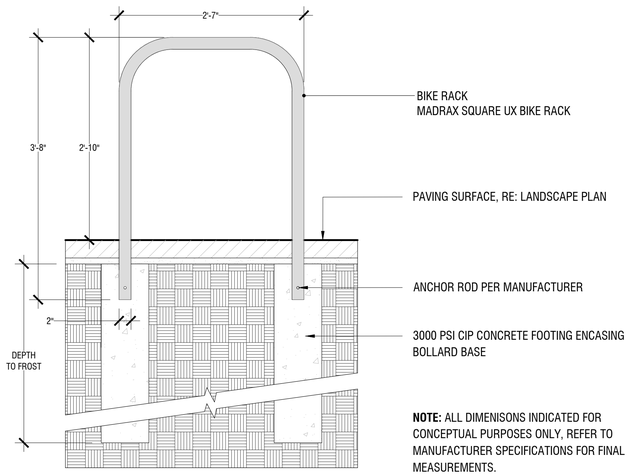


NOTE: ECORASTER OR APPROVED EQUAL TO
ACCOMMODATE FIRE AND EMERGENCY LOADING

2 GRASS PAVE
3/4"=1'-0"

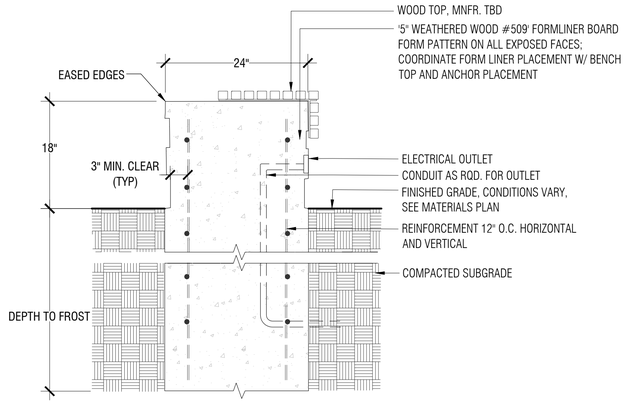


3 RAISED PLANTER
1":1'-0"

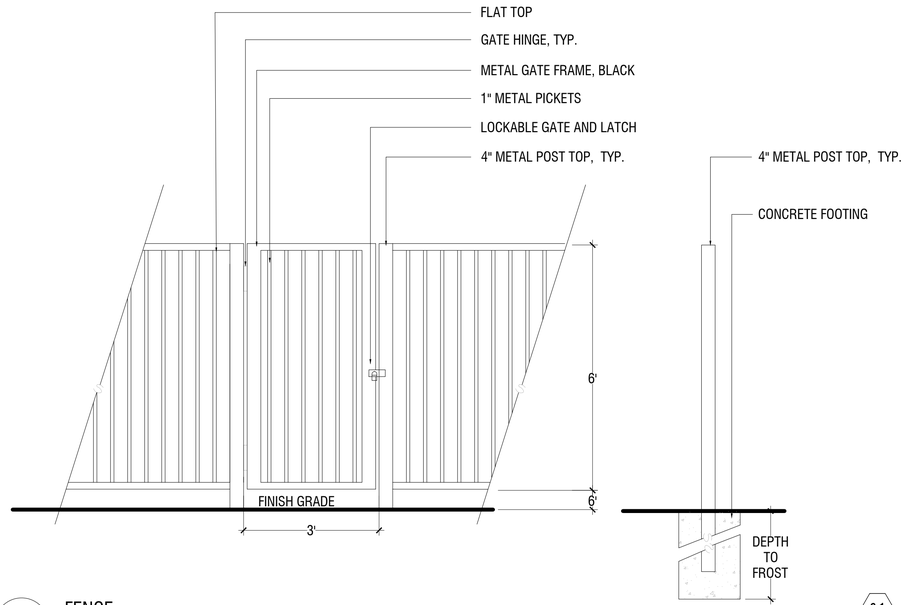


NOTE: ALL DIMENISONS INDICATED FOR CONCEPTUAL PURPOSES ONLY, REFER TO MANUFACTURER SPECIFICATIONS FOR FINAL MEASUREMENTS.

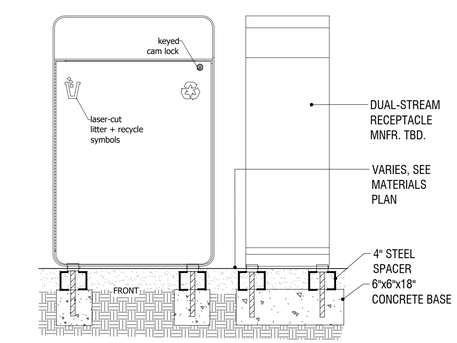
4 BICYCLE RACK
1":1'-0"



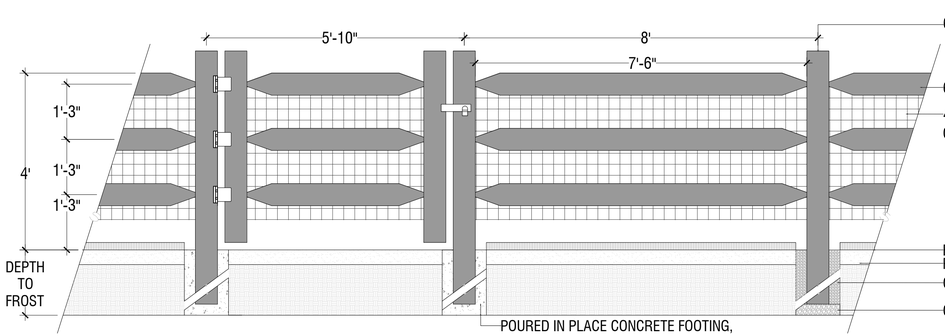
5 SEAT WALL
1":1'-0"



6 FENCE
NTS



7 TRASH RECEPTACLE
NTS



8 LOW FENCE
NTS

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00	
1.2	GRASS PAVE	2/L3-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
4.0	SITE WALLS/ EMBANKMENTS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
5.0	SITE FURNITURE		
5.1	BICYCLE RACK	4/L3-00	
5.2	RAISED PLANTER	3/L3-00	
5.3	TRASH RECEPTACLE	7/L3-00	
5.4	SEAT WALL	5/L3-00	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	FENCE	6/L3-00	
6.2	LOW FENCE	8/L3-00	
7.0	SITE LIGHTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L3-01	
9.2	EVERGREEN TREE PLANTING	2/L3-01	
9.3	SHRUB PLANTING	3/L3-01	
9.4	PERENNIAL PLANTING	4/L3-01	
9.5	STEEL EDGING	5/L3-01	
9.6	TREE PROTECTION	6/L3-01	
10.0	MISCELLANEOUS ELEMENTS		
10.1	STAGE	1/L3-02	
10.2	BIKE PAVILION	2/L3-02	
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03	
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02	
10.5	BIKE REPAIR STATION	2/L3-03	

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S
COLLABORATIVE AND
CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

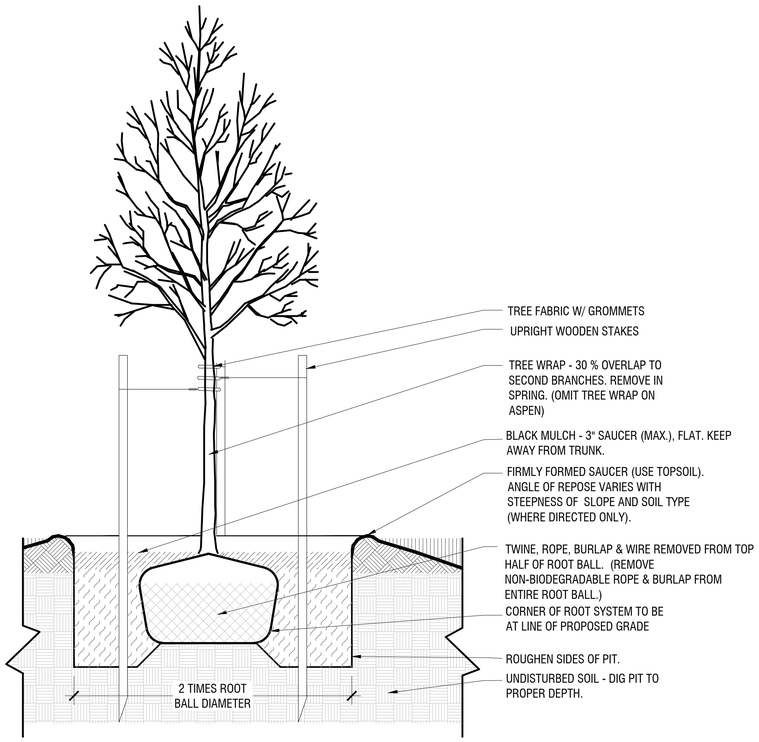
SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-00

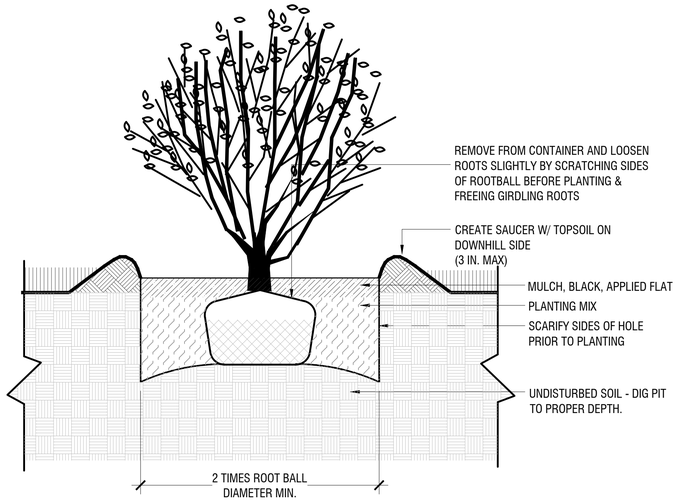
NOT FOR CONSTRUCTION



1 DECIDUOUS TREE PLANTING

9.1

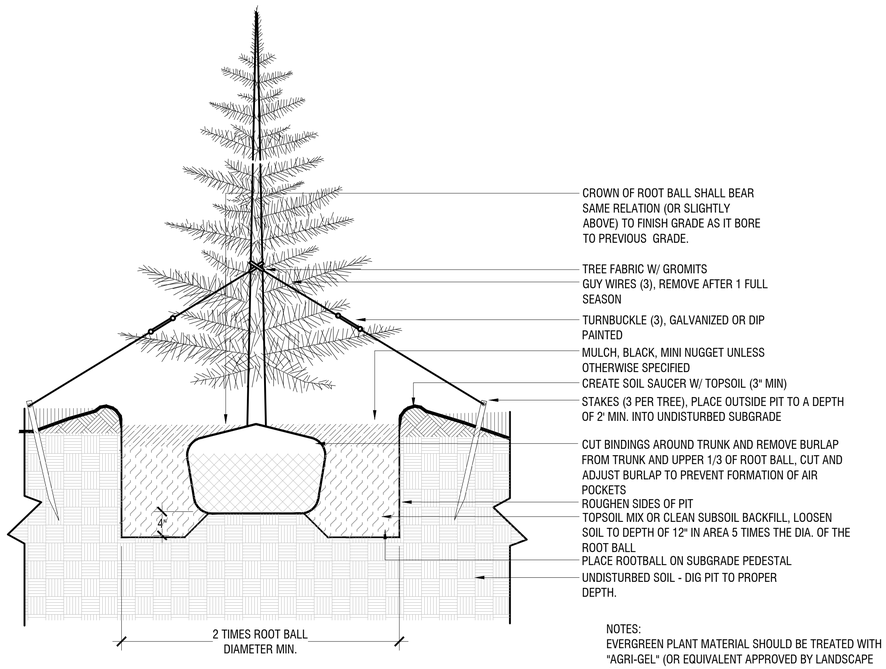
1":1'-0"



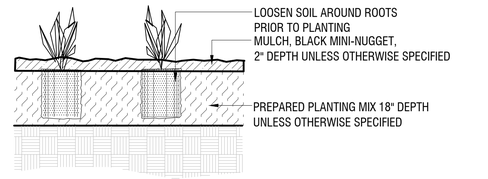
2 EVERGREEN TREE PLANTING

9.2

1":1'-0"



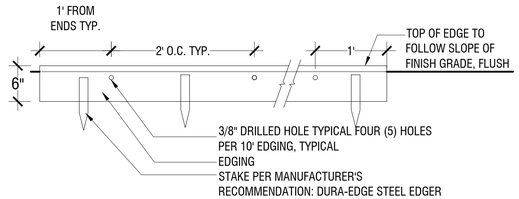
NOTES:
EVERGREEN PLANT MATERIAL SHOULD BE TREATED WITH "AGRI-GEL" (OR EQUIVALENT APPROVED BY LANDSCAPE ARCHITECT). DIP TREE ROOTS BEFORE PLANTING.



3 PERENNIAL & GROUND COVER PLANTING

9.4

1":1'-0"



4 STEEL LANDSCAPE BED EDGING

9.5

1":1'-0"

5 SHRUB PLANTING

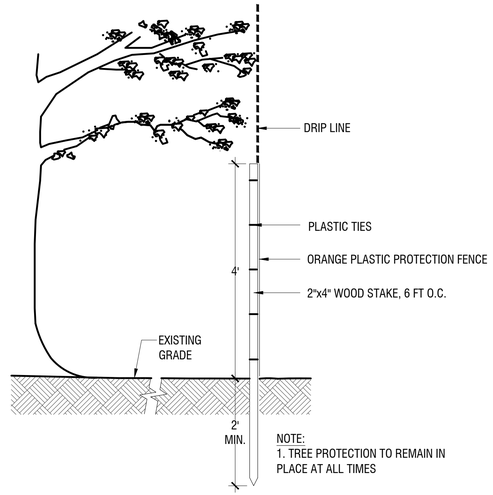
9.3

1":1'-0"

6 TREE PROTECTION

9.6

N.T.S.



NOTE:
1. TREE PROTECTION TO REMAIN IN PLACE AT ALL TIMES

NOTES:
1. ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
2. TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
	9.4	PERENNIAL PLANTING	4/L3-01
	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

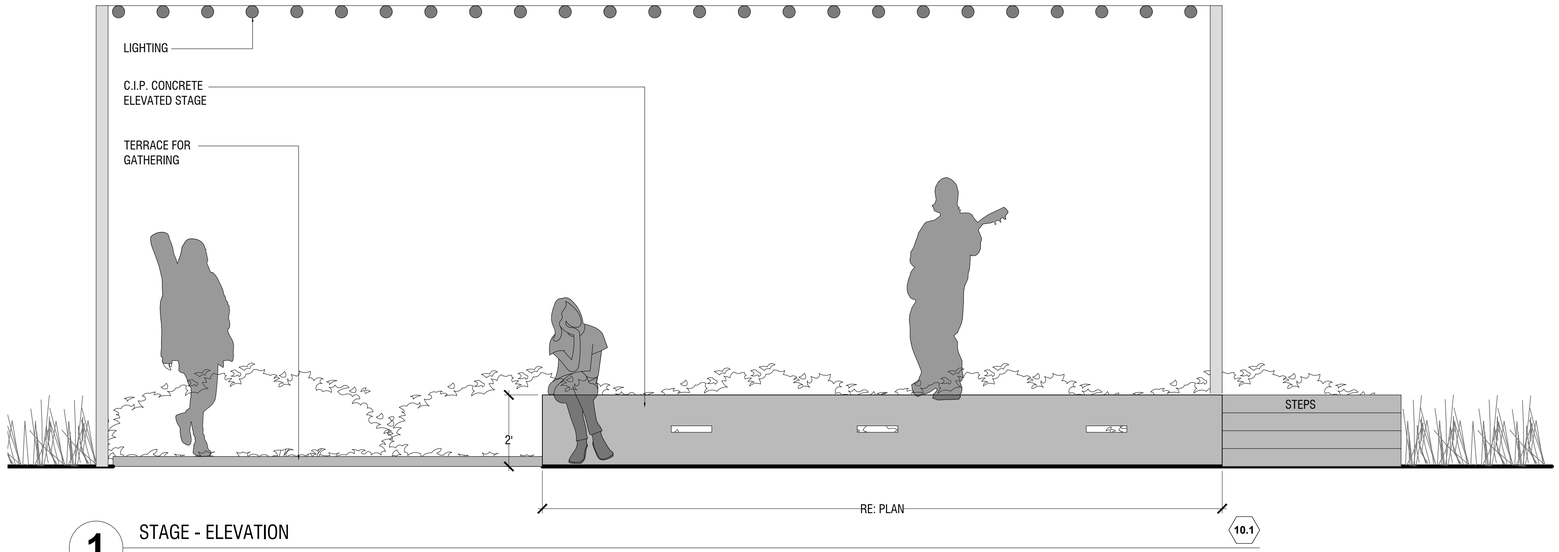
SHEET TITLE

LANDSCAPE DETAILS

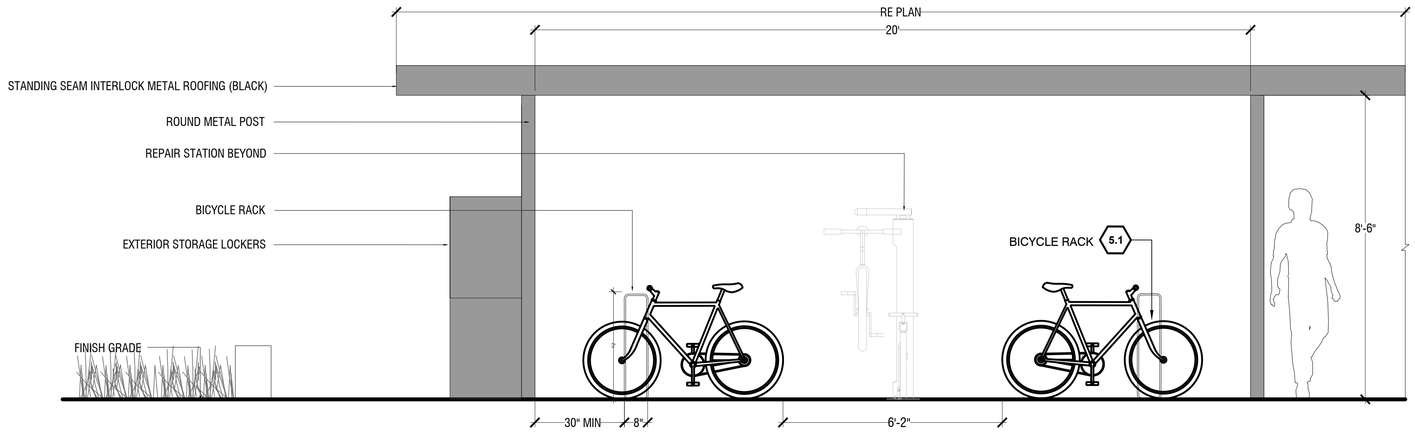
SHEET INFORMATION

L 3-01

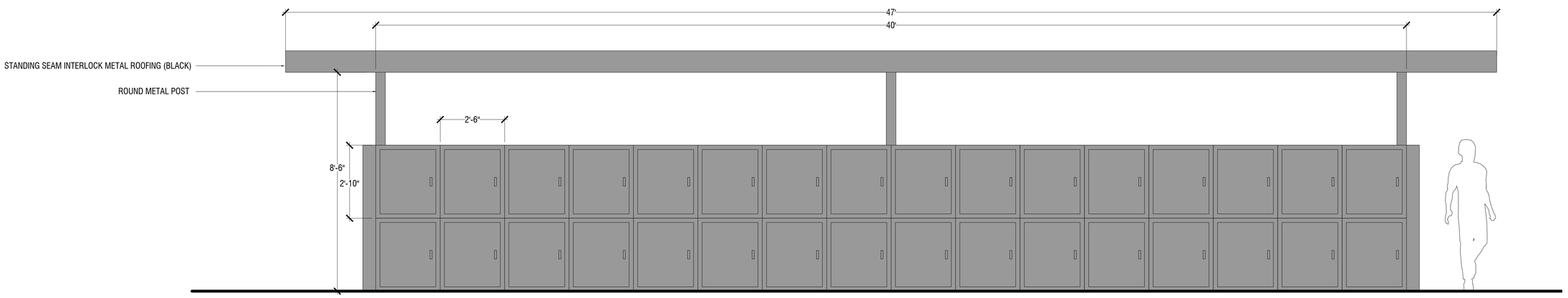
NOT FOR CONSTRUCTION



1 STAGE - ELEVATION
1/2":1'-0"



2 BIKE PAVILION
1/2":1'-0"



3 EXTERIOR STORAGE LOCKERS
1/2":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
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	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S
COLLABORATIVE AND
CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-02

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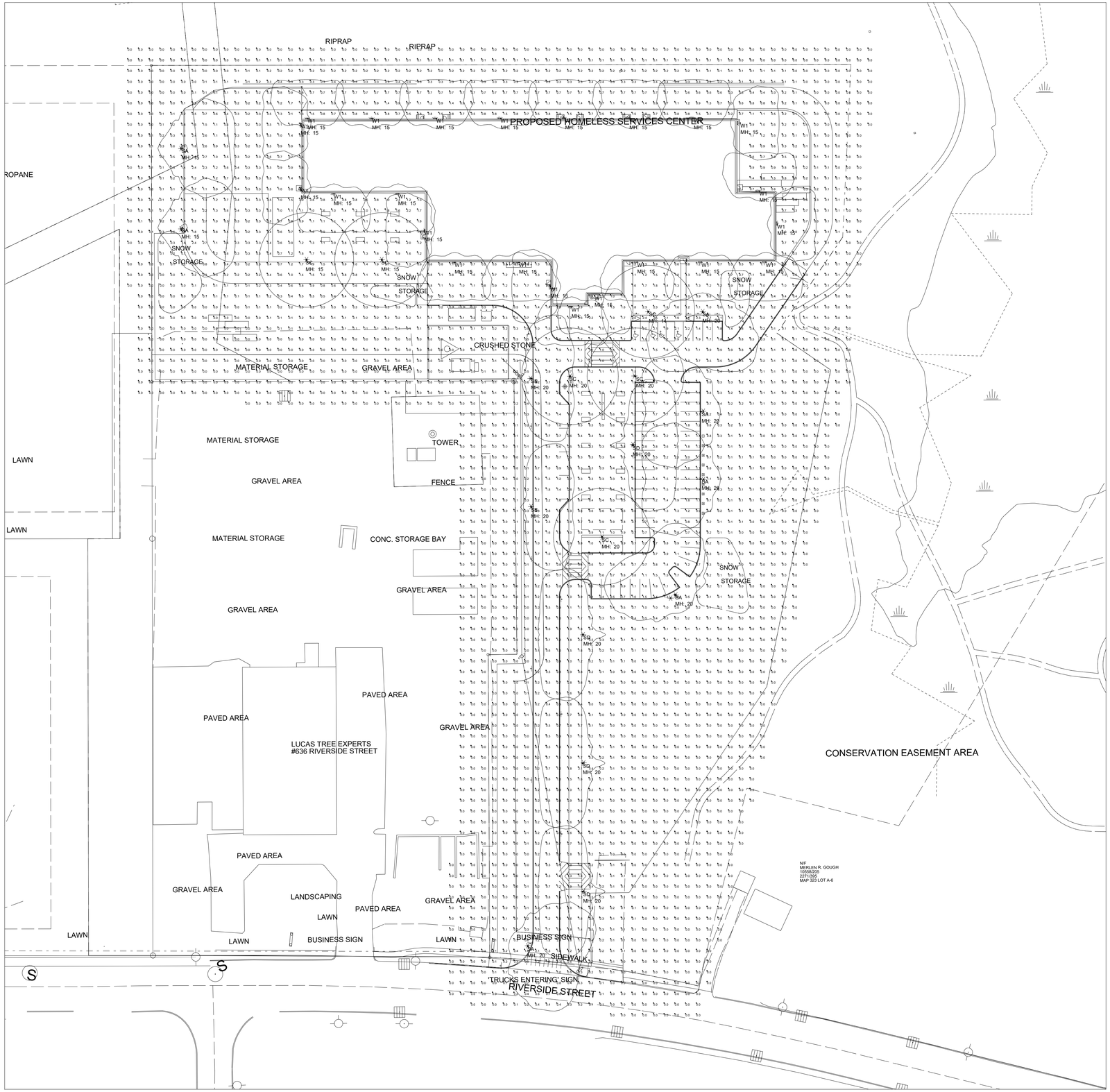


PLAN VIEW

NOTES:
1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

Calculation Summary

Label	Avg	Max	Min	Avg/Min	Max/Min
SITE	0.42	3.3	0.0	N.A.	N.A.

Luminaire Schedule (note fixture cataloge numbers are not complete)

Type	Qty	Lumens	LLF	Lum. Watts	Description
SA	7	6696	0.900	65	VPS-36L-65-3K7-4W
SB	2	5637	0.900	83	VP-S-36L-80-3K7-3-BC
SC	6	5908	0.900	58	VP-S-24L-55-3K7-5W
SD	4	5492	0.900	54	VP-S-24L-55-3K7-3
W1	23	2588	0.900	28.6	LNC2-12L-3K-070-4

TITLE
654 RIVERSIDE ST - SHELTER
PORTLAND, ME
SITE LIGHTING LAYOUT

GENERATED FOR:
GORRILL PALMER

SCALE NOT TO SCALE

Page 1 of 1

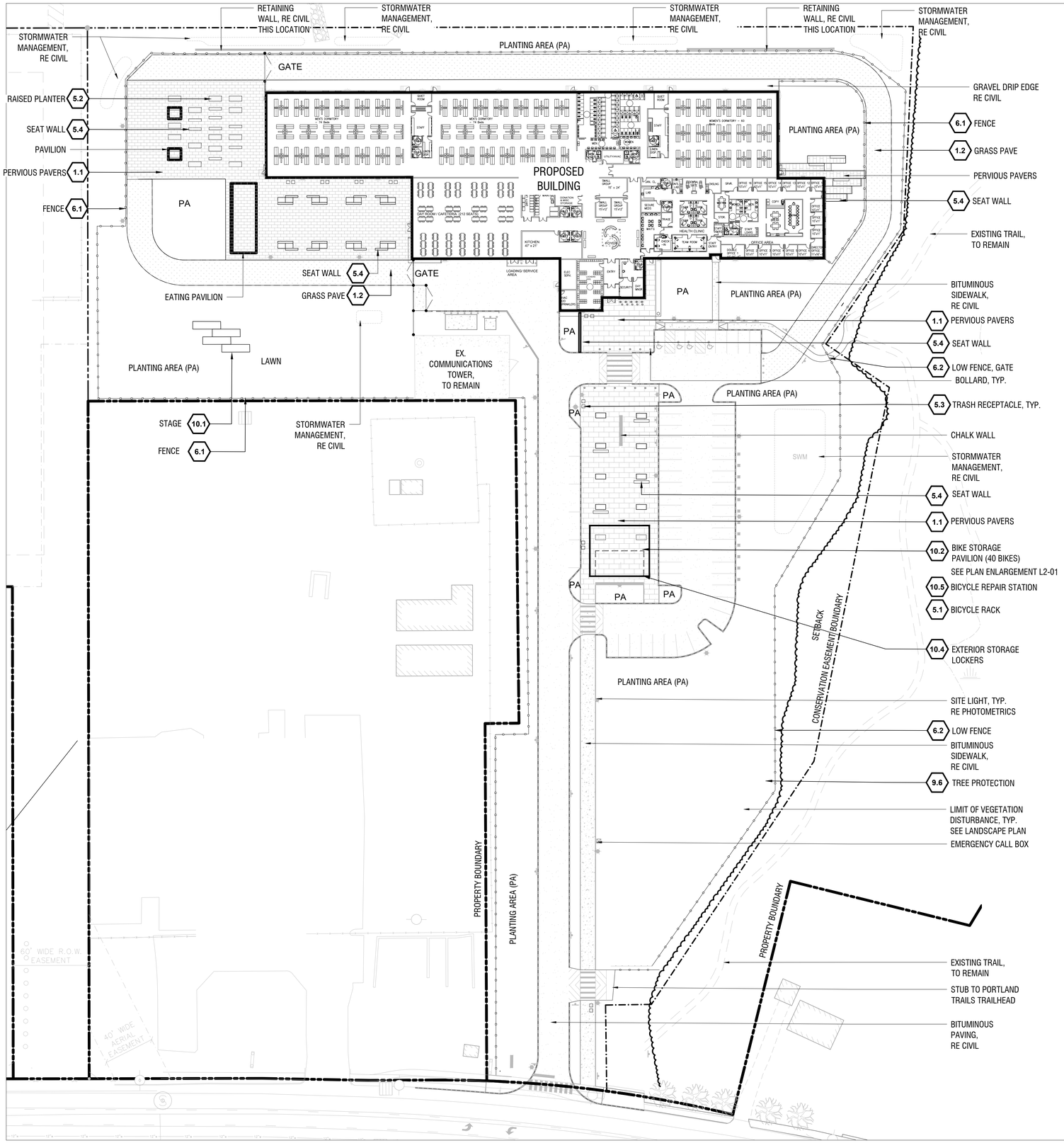
Date:8/10/2021

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com

SITE 8-11-21.AGI

SWANEY LIGHTING ASSOCIATES, INC.

NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. ITS ACCEPTANCE CONSTITUTES AN AGREEMENT THAT THE DRAWING WILL BE TREATED AS CONFIDENTIAL. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED INFORMATION CONCERNING THE OPERATION OF UNITS INDICATED. THIS DRAWING IS TO BE RETURNED UPON REQUEST AND IS NOT TO BE COMMUNICATED, DISCLOSED OR COPIED, EXCEPT AS EXPRESSLY AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.
NOTICE: THE INTENT OF THIS LIGHTING LAYOUT IS TO SUGGEST THE BEST UTILIZATION OF LIGHTING FIXTURES INCLUDED IN THIS DRAWING. IT IS PROVIDED USING FIXTURE PHOTOMETRICS FURNISHED BY THE MANUFACTURER. ANY VARIATION IN FIXTURE PERFORMANCE FROM PERFORMANCE SHOWN IN IES FILE IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IT'S USE FOR ANY OTHER PURPOSE IS NOT AUTHROIZED BY SWANEY LIGHTING ASSOCIATES.



MATERIALS LEGEND

SYMBOL	
	HARDSCAPE; CONCRETE PAVERS A (SF TBD)
	HARDSCAPE; CONCRETE PAVERS B (SF TBD)
	BITUMINOUS PAVING (SF TBD)
	BITUMINOUS SIDEWALK (SF TBD)
	PERVIOUS PAVING (SF TBD)

SITE KEYNOTES:

		DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
1.2	GRASS PAVE	2/L3-00
2.0	JOINTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS	
X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS	
X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE	
5.1	BICYCLE RACK	4/L3-00
5.2	RAISED PLANTER	3/L3-00
5.3	TRASH RECEPTACLE	7/L3-00
5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
6.1	FENCE	6/L3-00
6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE	
9.1	DECIDUOUS TREE PLANTING	1/L3-01
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9.4	PERENNIAL PLANTING	4/L3-01
9.5	STEEL EDGING	5/L3-01
9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS	
10.1	STAGE	1/L3-02
10.2	BIKE PAVILION	2/L3-02
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
10.5	BIKE REPAIR STATION	2/L3-03

0 20 40 80

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SEAL

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654 RIVERSIDE STREET
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OWNER:
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ISSUE DATE

AUGUST 31, 2021

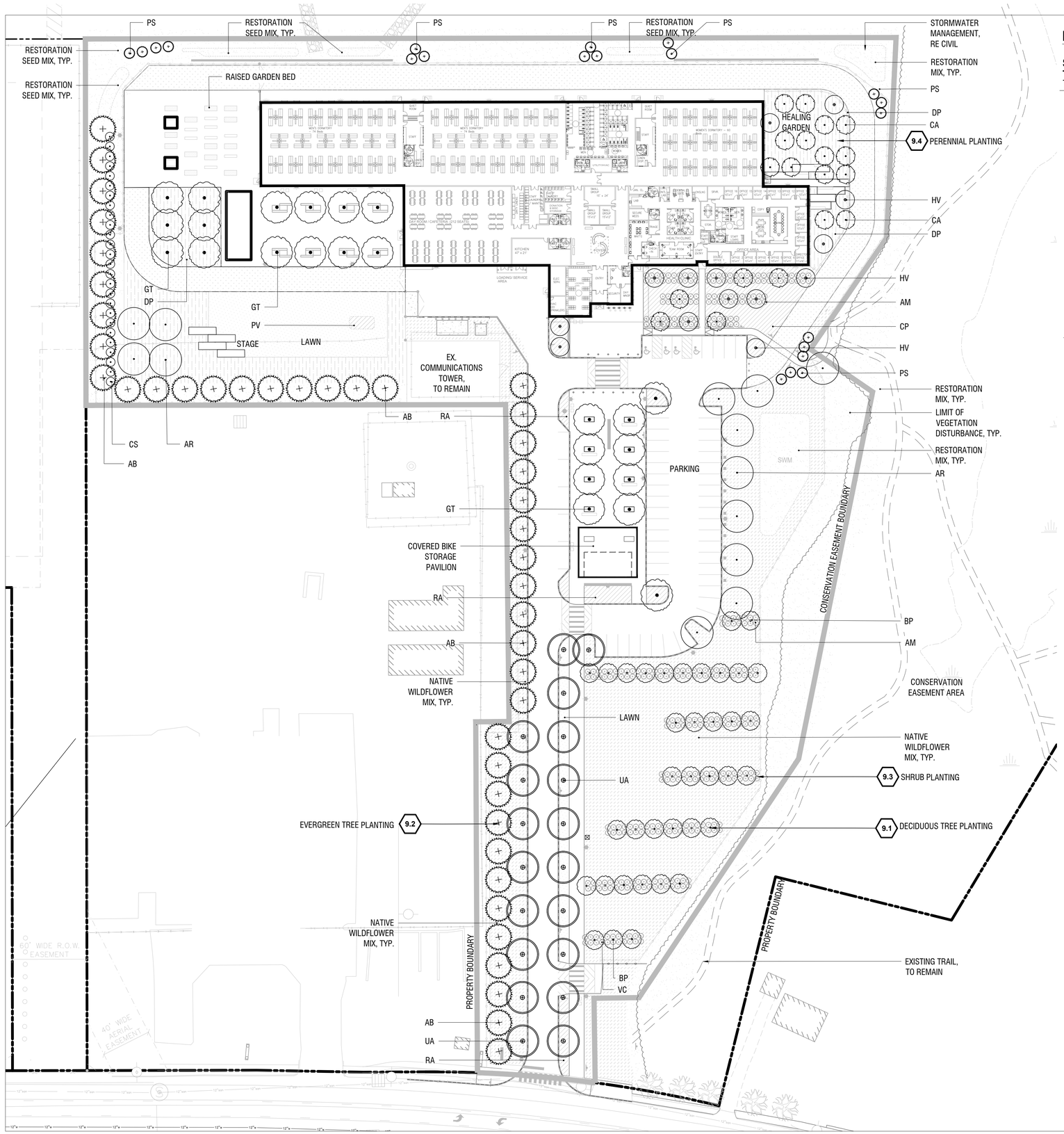
SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION



PLANT LIST

SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
TREES						
	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	TBD	2.5" MIN	PER PLAN
	BP	BETULA POPULIFOLIA	GRAY BIRCH (SINGLE STEM)	TBD	2.5" MIN	PER PLAN
	AR	ACER RUBRUM	RED MAPLE	TBD	2.5" MIN	PER PLAN
	AB	ABIES BALSAMEA	BALSAM FIR	TBD	8'-10' HEIGHT	PER PLAN
	QA	QUERCUS ALBA	WHITE OAK	TBD	2.5" MIN	PER PLAN
	HV	HAMAMELIS VIRGINIANA	NATIVE WITCH HAZEL	TBD	B&B	PER PLAN
	CA	CORNUS ALTERNAFOLIA	PAGODA DOGWOD	TBD	B&B	PER PLAN
	UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" MIN	PER PLAN
	PS	PINUS SEMBRA 'CHALET'	CHALET SWISS STONE PINE	TBD	3'-5' HEIGHT	PER PLAN
SHRUBS						
	CS	CORNUS ALBA 'SIBIRICA'	SIBIRICA RED TWIG DOGWOOD	TBD	TBD	PER PLAN
	AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	LOW BLACK CHOKEBERRY	TBD	TBD	PER PLAN
	RA	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	TBD	TBD	PER PLAN
ORNAMENTAL GRASSES & PERENNIALS						
	CP	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN
	MS	MISCANTHUS SINESIS	SILVER GRASS	TBD	TBD	PER PLAN
	PV	PANICUM VIRGATUM	SWITCHGRASS	TBD	TBD	PER PLAN
	PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	TBD	TBD	PER PLAN

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)

TOTAL AREA TBD

ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH. EACH 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET. A THICK HEALTHY LAWN IS THE BEST DEFENCE AGAINST WEEDS, DISEASE, DROUGHT AND INSECT DAMAGE.

RESTORATION MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX "
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
	1.1 CONCRETE PAVERS - PERVIOUS	1/L3-00		6.1 FENCE	6/L3-00
	1.2 GRASS PAVE	2/L3-00		6.2 LOW FENCE	8/L3-00
2.0	JOINTING		7.0	SITE LIGHTING	
	X.X NOT USED AT THIS TIME	X/XX-XX		X.X NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		8.0	DRAINAGE	
	X.X NOT USED AT THIS TIME	X/XX-XX		X.X NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		9.0	PLANTING AND LANDSCAPE	
	X.X NOT USED AT THIS TIME	X/XX-XX		9.1 DECIDUOUS TREE PLANTING	1/L3-01
5.0	SITE FURNITURE			9.2 EVERGREEN TREE PLANTING	2/L3-01
	5.1 BICYCLE RACK	4/L3-00		9.3 SHRUB PLANTING	3/L3-01
	5.2 RAISED PLANTER	3/L3-00		9.4 PERENNIAL PLANTING	4/L3-01
	5.3 TRASH RECEPTACLE	7/L3-00		9.5 STEEL EDGING	5/L3-01
	5.4 SEAT WALL	5/L3-00		9.6 TREE PROTECTION	6/L3-01
			10.0	MISCELLANEOUS ELEMENTS	
				10.1 STAGE	1/L3-02
				10.2 BIKE PAVILION	2/L3-02
				10.3 BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
				10.4 EXTERIOR STORAGE LOCKERS	3/L3-02
				10.5 BIKE REPAIR STATION	2/L3-03

0 20 40 80

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

PREPARED FOR

DEVELOPER'S COLLABORATIVE AND CITY OF PORTLAND

REVISIONS	DATE
CITY RESUBMISSION	08.12.2021
MAJOR SITE PLAN	08.31.2021

ISSUE DATE

AUGUST 31, 2021

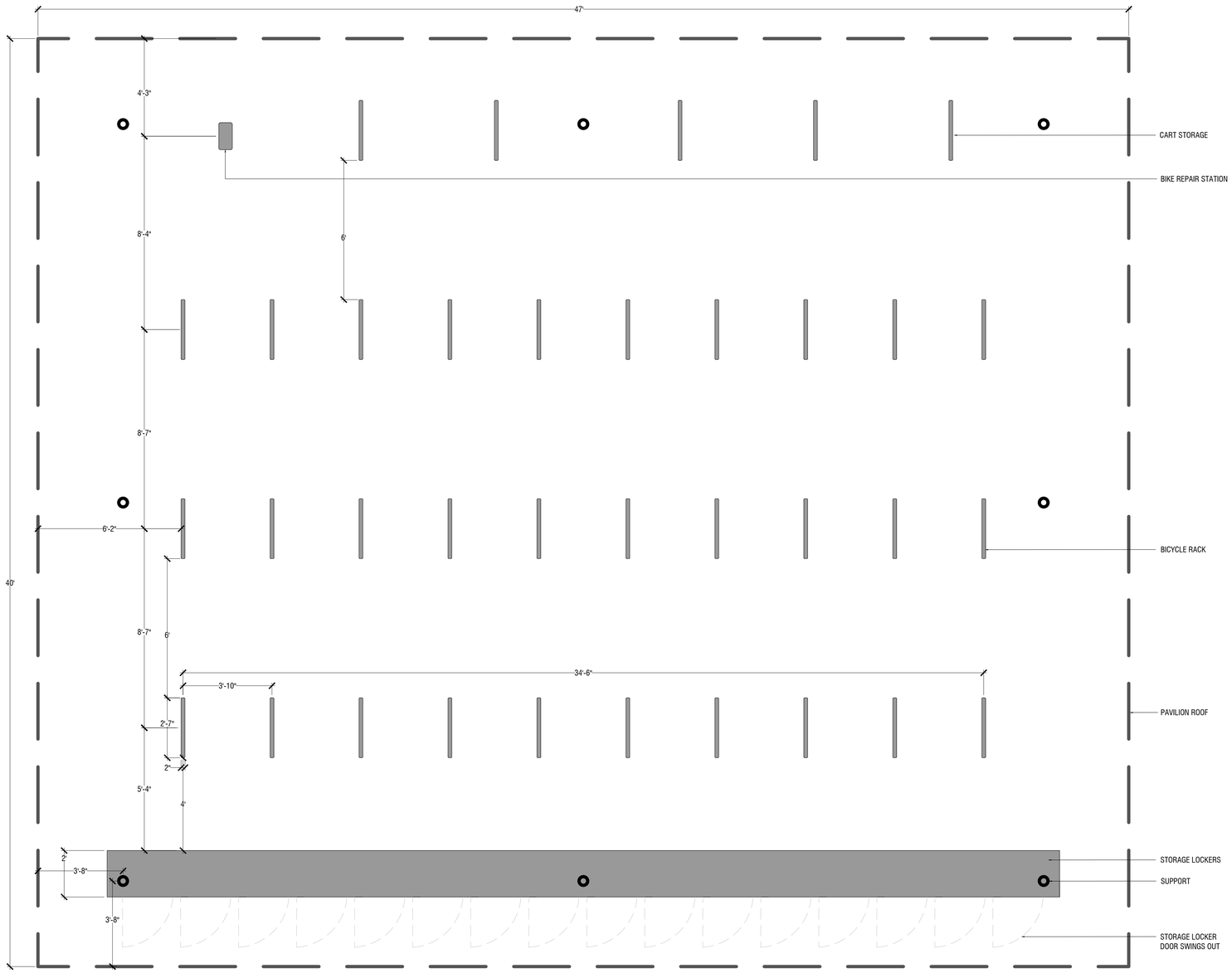
SHEET TITLE

LANDSCAPE PLAN

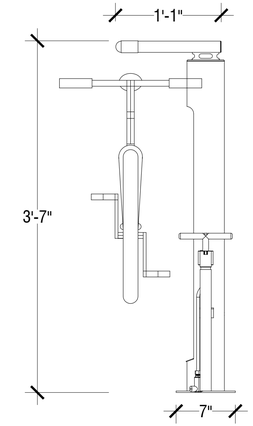
SHEET INFORMATION

L 2-00

NOT FOR CONSTRUCTION



1 BIKE PAVILION PLAN ENLARGEMENT 10.3
NTS



2 BIKE REPAIR STATION 10.5
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
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9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
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	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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LANDSCAPE
DETAILS

SHEET INFORMATION

L 2-01

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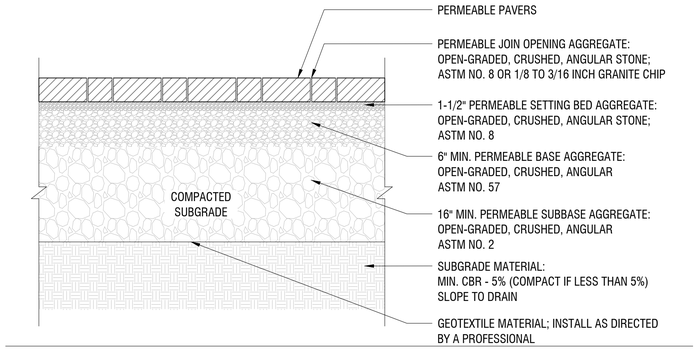
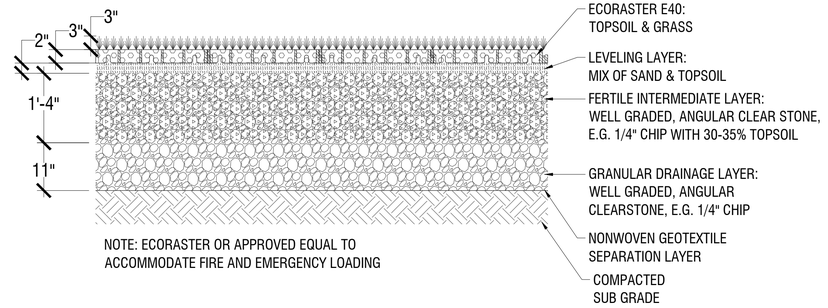
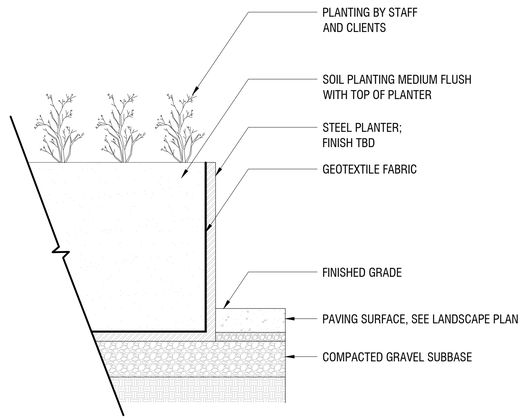


1 CONCRETE PAVERS - PERVIOUS
NTS — 1.1

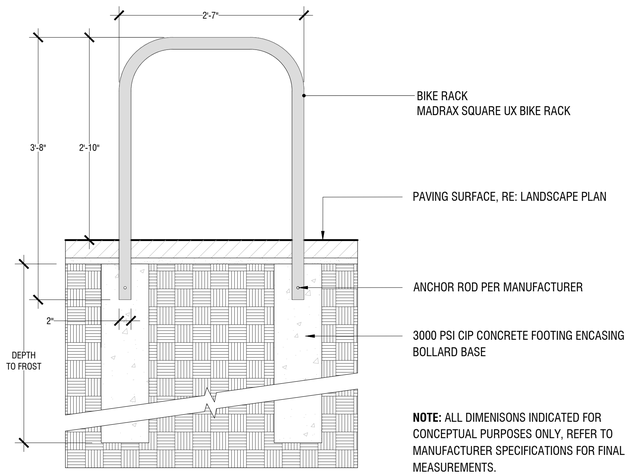


NOTE: ECORASTER OR APPROVED EQUAL TO
ACCOMMODATE FIRE AND EMERGENCY LOADING

2 GRASS PAVE
3/4"=1'-0" — 1.2

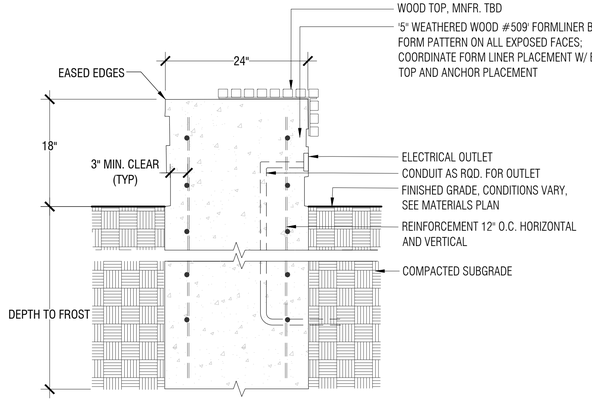


3 RAISED PLANTER
1":1'-0" — 5.2

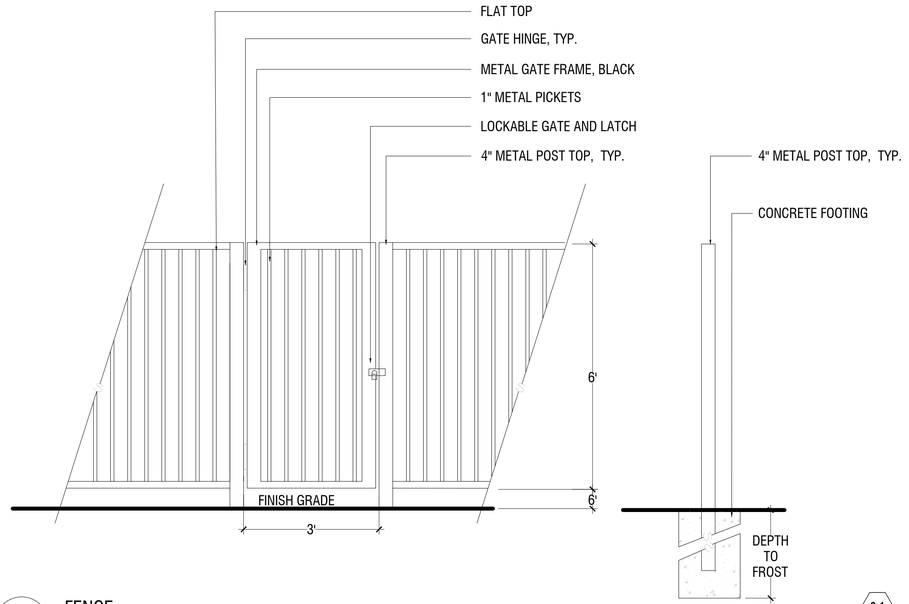


NOTE: ALL DIMENISONS INDICATED FOR CONCEPTUAL PURPOSES ONLY, REFER TO MANUFACTURER SPECIFICATIONS FOR FINAL MEASUREMENTS.

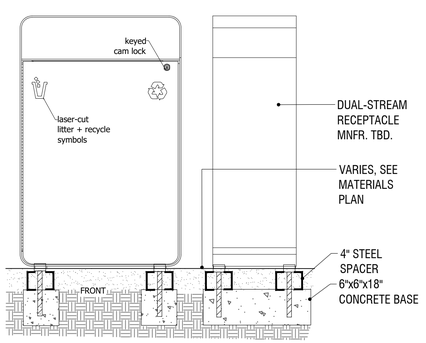
4 BICYCLE RACK
1":1'-0" — 5.1



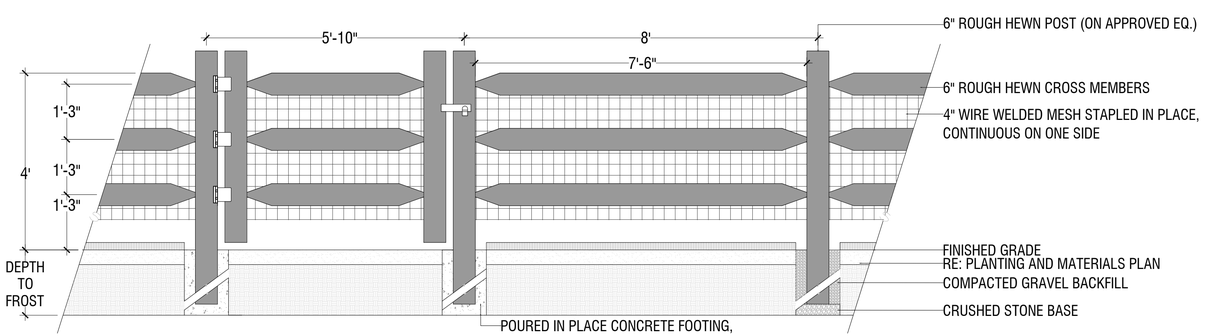
5 SEAT WALL
1":1'-0" — 5.4



6 FENCE
NTS — 6.1



7 TRASH RECEPTACLE
NTS — 5.3



8 LOW FENCE
NTS — 6.2

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00	
1.2	GRASS PAVE	2/L3-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
4.0	SITE WALLS/ EMBANKMENTS		
X.X	NOT USED AT THIS TIME	X/XX-XX	
5.0	SITE FURNITURE		
5.1	BICYCLE RACK	4/L3-00	
5.2	RAISED PLANTER	3/L3-00	
5.3	TRASH RECEPTACLE	7/L3-00	
5.4	SEAT WALL	5/L3-00	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	FENCE	6/L3-00	
6.2	LOW FENCE	8/L3-00	
7.0	SITE LIGHTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L3-01	
9.2	EVERGREEN TREE PLANTING	2/L3-01	
9.3	SHRUB PLANTING	3/L3-01	
9.4	PERENNIAL PLANTING	4/L3-01	
9.5	STEEL EDGING	5/L3-01	
9.6	TREE PROTECTION	6/L3-01	
10.0	MISCELLANEOUS ELEMENTS		
10.1	STAGE	1/L3-02	
10.2	BIKE PAVILION	2/L3-02	
10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03	
10.4	EXTERIOR STORAGE LOCKERS	3/L3-02	
10.5	BIKE REPAIR STATION	2/L3-03	

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MAJOR SITE PLAN	08.31.2021

ISSUE DATE

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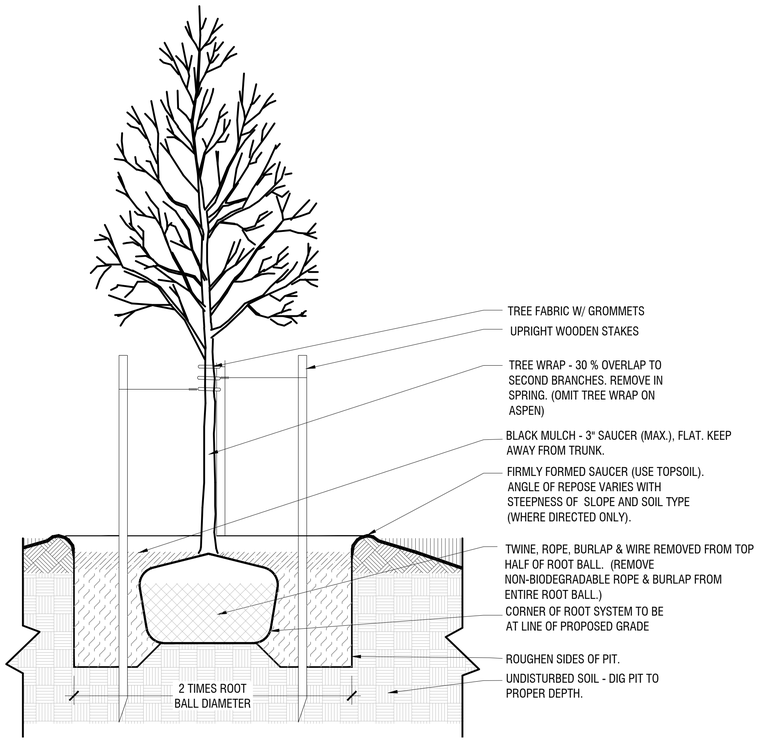
SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-00

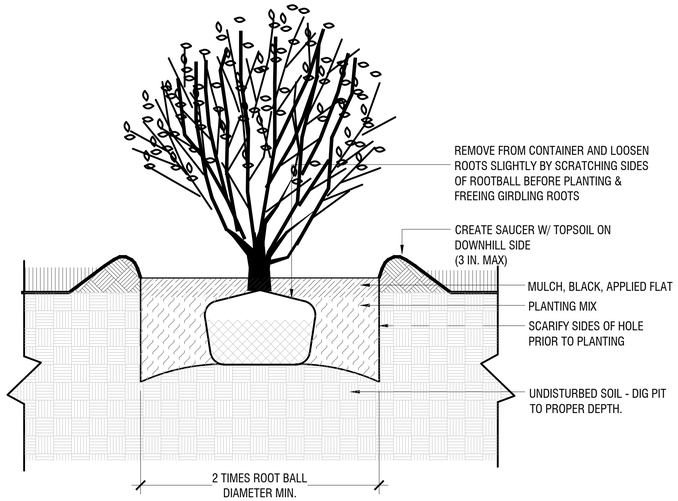
NOT FOR CONSTRUCTION



1 DECIDUOUS TREE PLANTING

9.1

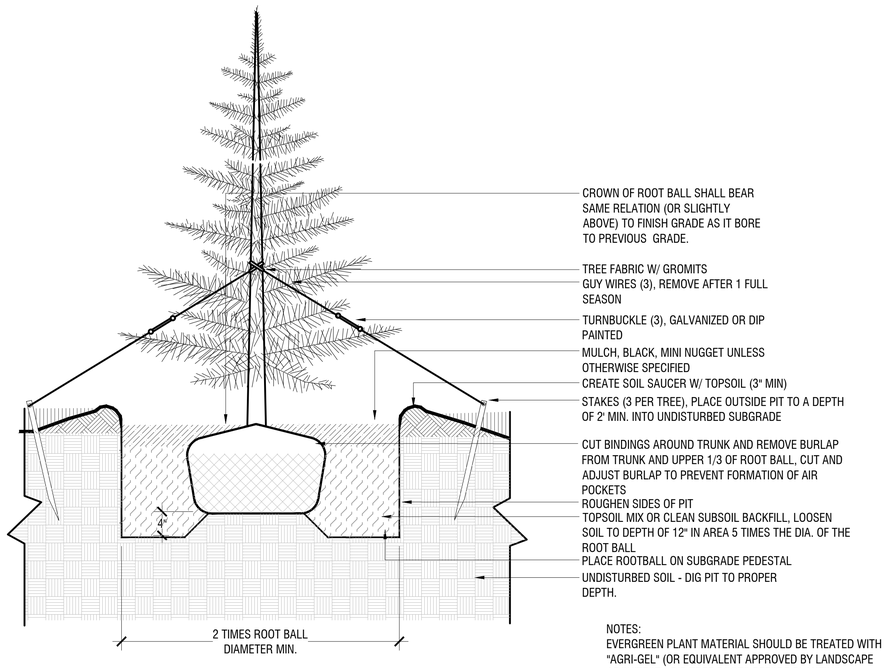
1":1'-0"



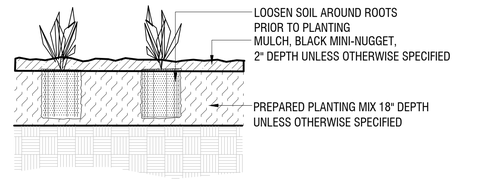
2 EVERGREEN TREE PLANTING

9.2

1":1'-0"



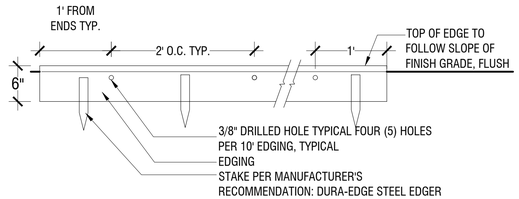
NOTES:
EVERGREEN PLANT MATERIAL SHOULD BE TREATED WITH "AGRI-GEL" (OR EQUIVALENT APPROVED BY LANDSCAPE ARCHITECT). DIP TREE ROOTS BEFORE PLANTING.



3 PERENNIAL & GROUND COVER PLANTING

9.4

1":1'-0"



4 STEEL LANDSCAPE BED EDGING

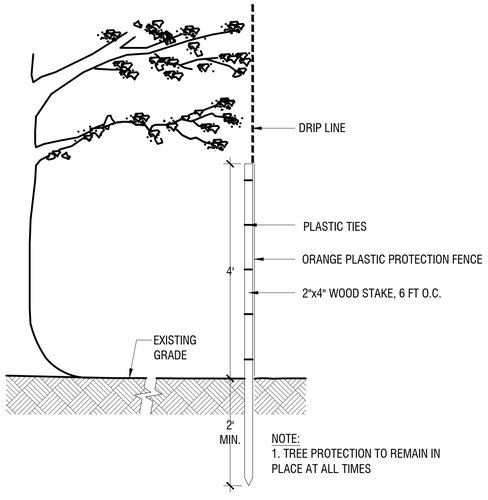
9.5

1":1'-0"

5 SHRUB PLANTING

9.3

1":1'-0"



NOTE:
1. TREE PROTECTION TO REMAIN IN PLACE AT ALL TIMES

6 TREE PROTECTION

9.6

N.T.S.

NOTES:
1. ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
2. TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
5.0	SITE FURNITURE		
	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
	6.2	LOW FENCE	8/L3-00
7.0	SITE LIGHTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
8.0	DRAINAGE		
	X.X	NOT USED AT THIS TIME	X/XX-XX
9.0	PLANTING AND LANDSCAPE		
	9.1	DECIDUOUS TREE PLANTING	1/L3-01
	9.2	EVERGREEN TREE PLANTING	2/L3-01
	9.3	SHRUB PLANTING	3/L3-01
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	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
	10.1	STAGE	1/L3-02
	10.2	BIKE PAVILION	2/L3-02
	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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REVISIONS	DATE
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MAJOR SITE PLAN	08.31.2021

ISSUE DATE

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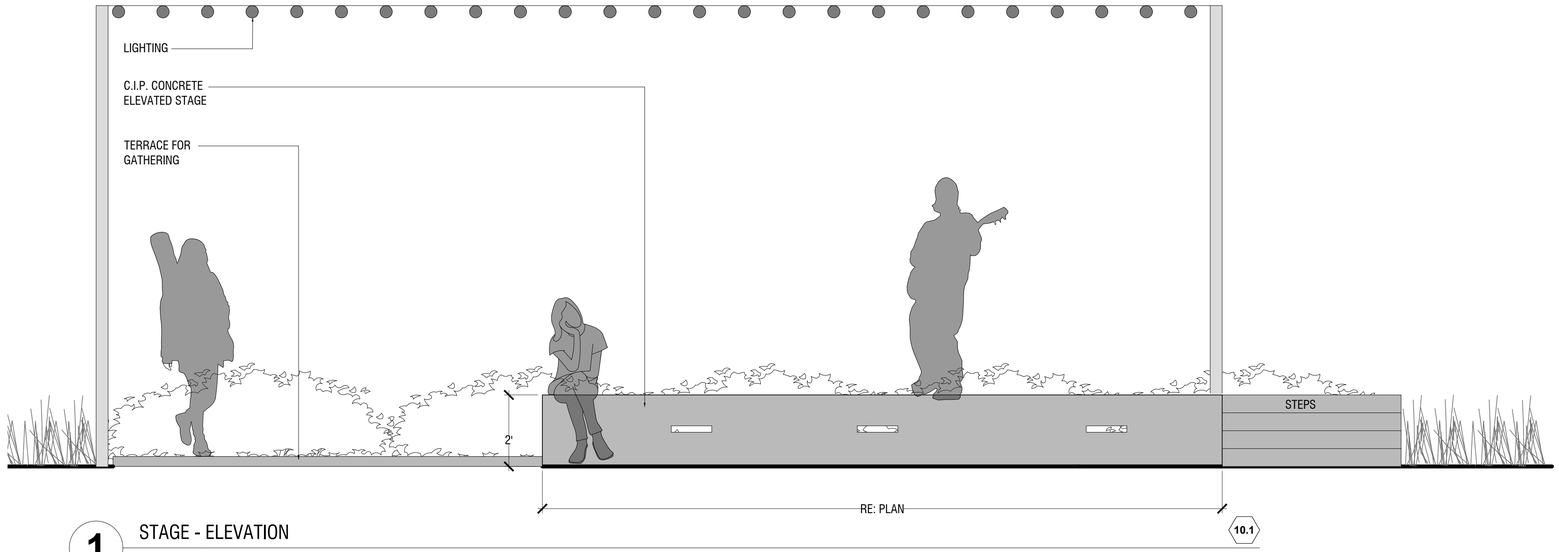
SHEET TITLE

LANDSCAPE DETAILS

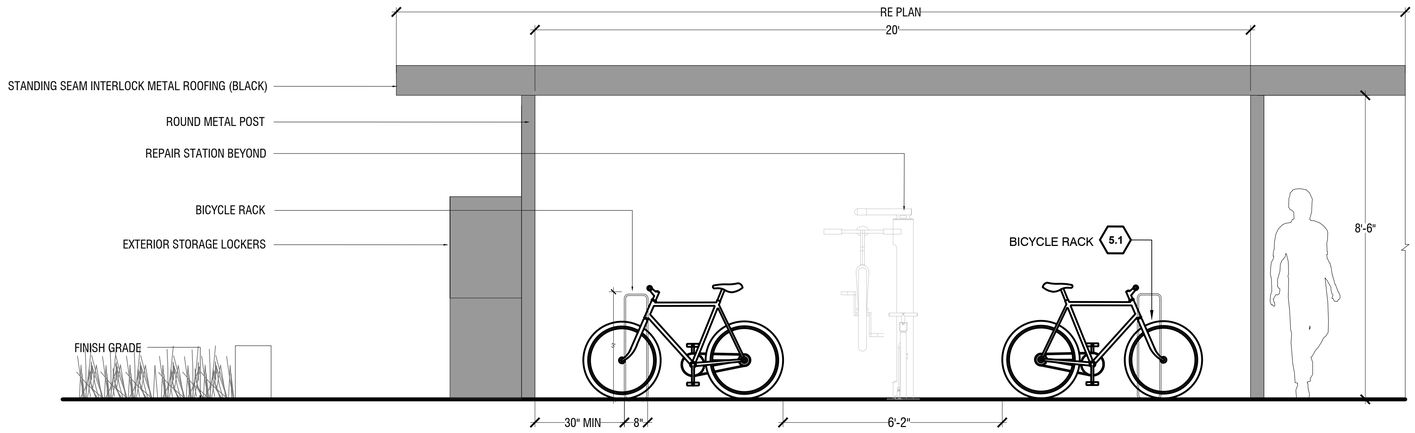
SHEET INFORMATION

L 3-01

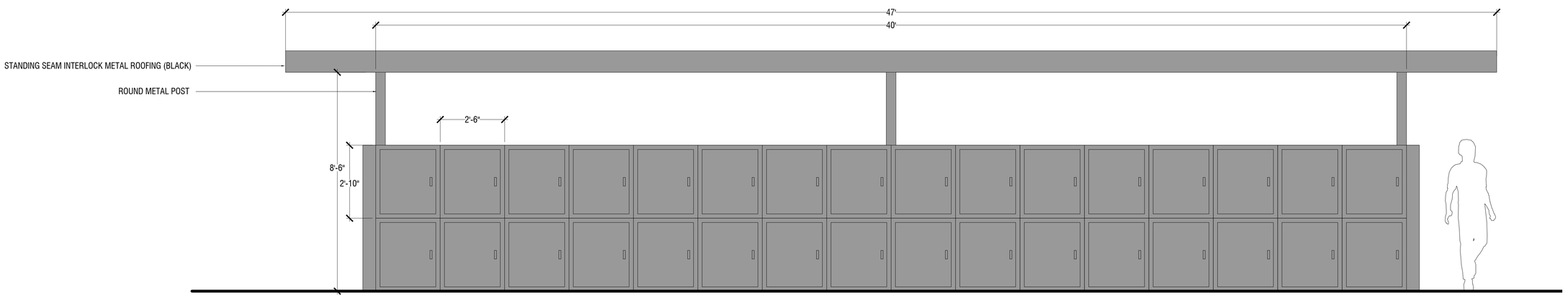
NOT FOR CONSTRUCTION



1 STAGE - ELEVATION
1/2":1'-0"



2 BIKE PAVILION
1/2":1'-0"
10.2



3 EXTERIOR STORAGE LOCKERS
1/2":1'-0"
10.4

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET
	1.1	CONCRETE PAVERS - PERVIOUS	1/L3-00
	1.2	GRASS PAVE	2/L3-00
2.0	JOINTING		
	X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		
	X.X	NOT USED AT THIS TIME	X/XX-XX
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	5.1	BICYCLE RACK	4/L3-00
	5.2	RAISED PLANTER	3/L3-00
	5.3	TRASH RECEPTACLE	7/L3-00
	5.4	SEAT WALL	5/L3-00
6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
	6.1	FENCE	6/L3-00
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	X.X	NOT USED AT THIS TIME	X/XX-XX
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	9.5	STEEL EDGING	5/L3-01
	9.6	TREE PROTECTION	6/L3-01
10.0	MISCELLANEOUS ELEMENTS		
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	10.3	BIKE PAVILION PLAN ENLARGEMENT	1/L3-03
	10.4	EXTERIOR STORAGE LOCKERS	3/L3-02
	10.5	BIKE REPAIR STATION	2/L3-03

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SHEET TITLE

LANDSCAPE
DETAILS

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L 3-02

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