

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 Planning Board will hold a remote meeting on Tuesday, August 24, 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 the requirements of 1 M.R.S. section 403-B and the City Council's Remote Participation Policy.

For more information on how to access the meeting remotely and how to give public comment, please go to <http://www.portlandmaine.gov/remotepud>

Public comment will be taken for each item on the agenda during the allotted time and written comments should be submitted to planningboard@portlandmaine.gov. **Please note that the placement of items on the 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 un-muted 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: Aug 24, 2021 04:30 PM Eastern Time (US and Canada)
Topic: Planning Board Workshop and Public Hearing August 24, 2021

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/86784193669>

Or One tap mobile :

US: +19292056099,,86784193669# or +13017158592,,86784193669#

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: 867 8419 3669

International numbers available: <https://us02web.zoom.us/j/86784193669>

For more information on how to use Zoom, please go to:

<https://www.portlandmaine.gov/remotepud>

Public comments will be taken for each item on the agenda and written comments should be submitted to planningboard@portlandmaine.gov

WORKSHOP - 4:30 PM

- i. Major Site Plan and Conditional Use; 654 (638) Riverside Street; DC Predevelopment, LLC. and City of Portland, Applicant. (estimated time 4:30 – 6:00 p.m.) The Planning Board will hold a workshop to consider a proposal for the development of a 51,690 square foot, 200-person capacity emergency shelter at 654 (638) Riverside Street. The subject property is seven acres in size and is zoned I-M and I-H Industrial.
- ii. Level III Site Plan; 477-481 Congress Street; TT Maine Venture, LLC., Applicant. (estimated time 6:00 – 7:00 p.m.) The Planning Board will hold a workshop to consider a proposal for a change of use at 477-481 Congress Street and 22 Preble Street to include a 196-room hotel, 4,700 square feet of ground floor retail, and a 2,260 square foot restaurant. The structures to be renovated include the 14-story Time and Temperature Building and comprise 202,000 gross square feet in floor area sited on parcels totaling 78,680 square feet in size. The subject parcels are zoned B-3 Downtown Business and are in the Congress Street Historic District.

PUBLIC HEARING - 7:00 PM

- 1. ROLL CALL AND DECLARATION OF QUORUM**
- 2. COMMUNICATION AND REPORTS**
- 3. REPORT OF ATTENDANCE AT THE MEETING HELD ON AUGUST 10, 2021**

Afternoon Workshop

65 McAuley Way: Dunfey, Mazer, Smith, and Stanley present; Silk recused; Chann and Dundon absent.

Evening Hearing

300 Fore Street: Dunfey, Mazer, Silk, Smith, and Stanley present; Chann and Dundon absent.

7 India Street: Dunfey, Mazer, Silk, Smith, and Stanley present; Chann and Dundon absent.

- 4. REPORTS OF DECISIONS AT THE MEETING HELD ON AUGUST 10, 2021**

- i. Major Site Plan; 300 Fore Street; University of Maine System, Applicant. Stanley moved and Dunfey seconded to approve the site plan with three conditions of approval. Vote 5-0, Chann and Dundon absent.
- ii. Amendment to a Level II Site Plan/Subdivision; 7 India Street; J. Alfred Poor Block, LLC., Applicant. Stanley moved and Dunfey seconded a motion to approve the changes to on-street parking for the portion of India Street between Fore Street and Thames Street. Vote 5-0, Chann and Dundon absent.

- 5. NEW BUSINESS**

- i. Level III Site Plan and Subdivision; 148 (144) State Street; NewHeight Redfern, LLC., Applicant. (estimated time 7:00 p.m.) The Planning Board will hold a remote public hearing to consider a 195,942 square foot mixed use redevelopment project at 148 (144) State Street. The redevelopment would renovate the existing Mercy Hospital and Morrison House buildings to include a total of 175 dwelling units, along with medical clinic, self-storage, and commercial uses. The subject property is 2.34 acres in size and is zoned B-3 Downtown Business.



Memorandum

Planning and Urban Development Department

To: Brandon Mazer, Chair and Members of the Portland Planning Board
From: Matthew Grooms, Senior Planner
Date: August 20, 2021
Re: 638 Riverside Street (Homeless Services Center); Major Site Plan and Conditional Use Application
Project #: PL-001682-2021
CBL: 323 A003001
Meeting Date: August 24, 2021

I. 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 with on-site kitchen, dining area, staff offices, health clinic, outdoor recreational spaces and capacity for up to 200 overnight guests. The development would be located at 654 Riverside Street, in the Riverton neighborhood within both the Industrial Moderate (I-M) and Industrial High-Impact (I-H) zones.



Figure 1: HSC Front Elevation

The Planning Board held its first workshop on this application on July 27, 2021, where an initial overview of the project was provided. At that meeting, the Board requested a second workshop, to primarily focus on the HSC Management Plan as well as some focused areas of the site plan review. Given that direction, this memo is narrowly focused on the key elements of the Management Plan, and plan updates that have occurred since the July 27th meeting. For a comprehensive overview of the project, please see staff's first memo on this application.

This application 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 12th and 13th, 2021. As of the writing of this report, the Planning Department has received six public comments. The applicant held their required neighborhood meeting on Monday, July 26th (Attachment S), and a second neighborhood meeting was held on Monday, August 16th.

Applicant: DC Predevelopment LLC and City of Portland
Agent and Civil Engineer: Steve Bushey, Gorrill Palmer
Architect: Winton Scott Architects



Figure 2: Project Site off of Riverside Street

II. PLANNING BOARD WORKSHOP – JULY 27, 2021

The Planning Board held a workshop on the site plan and conditional use application for the proposed Homeless Services Center (HSC) on July 27, 2021, where an initial overview of the project was provided. The Planning Board focused primarily on the shelter's management plan; a conditional use requirement for emergency shelters. The Board requested that a management plan specific to the proposed facility be developed, and then reviewed by a qualified third-party, prior to any formal vote on this application.

Aside from the Management Plan, the Board further requested that staff review comments be addressed, that the survey of people with lived experience of homelessness be provided, that fencing of the site be further evaluated, and that an assessment be provided demonstrating the project's compliance with relevant requirements for communication tower fall zones.

III. PUBLIC COMMENT

As of the writing of this memorandum, six public comments have been received regarding this application. These comments provide a variety of different perspectives on the proposed HSC development proposal, ranging from concerns about the size of the facility, buffering and security between the site and adjacent property, 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.

IV. RESPONSE TO REVIEW COMMENTS

Prior to the July 27th workshop, City staff provided review comments on the applicable site plan and conditional use requirements for this project. Below is a synopsis of those comments, how they were addressed by the applicant, and whether or not any additional revision or changes are being requested by staff.

RELEVANT SITE PLAN REVIEW STANDARDS

A. Site Access, Transportation and Parking

1. Staff Comment: 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.

Applicant Response: 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 Response: 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 carpools.

- 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.
2. Staff Comment: Hold traffic scoping meeting with City staff.

Applicant Response: A traffic scoping meeting was held on August 5th, 2021. Major items of discussion included parking demand, access conditions, sidewalk access, wayfinding and trip generation.

Staff Response: The required scoping meeting was held on August 5th, 2021, and staff are actively reviewing the updated materials based upon feedback provided at the scoping meeting. In particular, staff asked that the Oxford Street Shelter's current employee count and parking demand be used to model anticipated parking demand at the new facility. Staff also asked that safe and appropriate pedestrian routes from existing transit stops be identified and encouraged through the use of wayfinding signage.

3. Staff Comment: Provide clarification on how loading bays will function.

Applicant Response: Loading bays are to be located at grade, and accessed using box trucks and other similar small sized vehicles. The loading area measures 46 feet by 115 feet, and is adequately sized to allow for vehicle maneuvers. This is further supported by a turning template that was provided (Attachment O). According to the applicant, deliveries are likely to occur early in the morning, and on-site staff will coordinate with vendors to avoid concurrent deliveries to the extent possible.

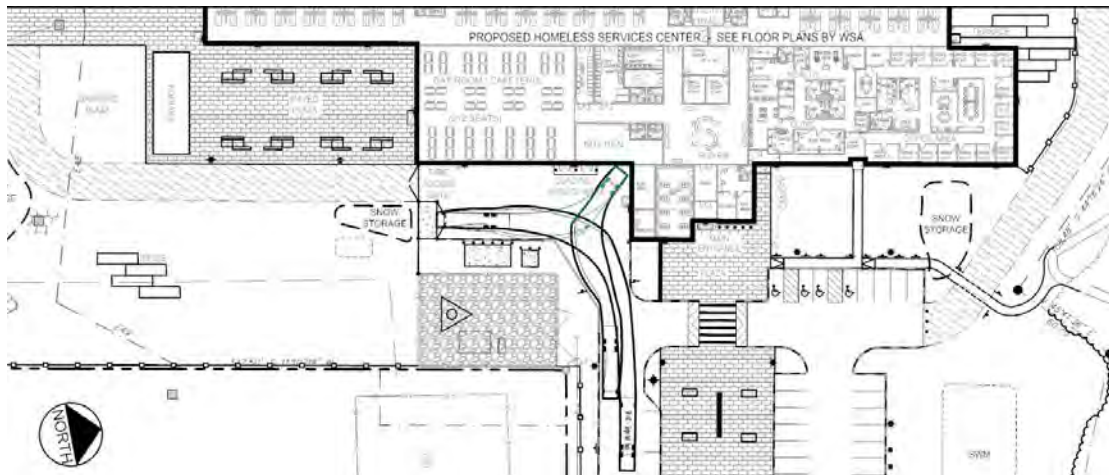


Figure 3: AutoTurn Template

Staff Response: The applicant has provided information on frequency and hours of delivery, types of delivery vehicles to be utilized, and turning templates demonstrating adequate maneuvering area. This comment is considered addressed.

4. Staff Comment: Provide ADA accessible route to established fixed-transit stops.

Applicant Response: The applicant proposes to construct a new five-foot-wide paved sidewalk along the west side of Riverside Street, extending from the site driveway north to the existing sidewalk terminus, a distance of approximately 1,250 feet. This includes partial sidewalk near the intersection of Riverside Street and Forest Avenue, which needs to be reconstructed to provide full five-foot wide and typical City sidewalk compliant conditions. New wayfinding signage will direct users along this route.

Staff Response: 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.

Regarding the proposed sidewalk width, Bruce Hyman, Transportation Program Manager for the City, offers the following comment:

- 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').

5. Staff Comment: Provide evidence in support of the number of parking spaces being provided and consider allocating certain spaces to shelter guests.

Applicant Response: Based upon the anticipated staffing requirements for the facility, the TDM plan estimates that 63 positions will make use of the site within a 24-hour period, and that there may be some overlap between staff. Additional spaces are allocated for drop-offs and other short duration parking, deliveries, guests, and as many as four HHS vehicles that will occupy the site full time. Based upon this information, the site plan has been revised, increasing the number of parking spaces from 43 to 56.

Staff Response: Based upon the information provided in the TDM plan related to anticipated on-site staffing, typical on-site visits by service providers and allocation of spaces for shelter clients, the number of parking spaces provided appears appropriate. This comment is considered addressed.

6. Staff Comment: Clarify that all parking spaces shall be made EV-ready.

Applicant Response: The utility plan has been updated to provide EV charging posts at 12 of the parking spaces, as required of 20% of all off-street parking. Electrical conduit will be installed at each of the remaining spaces, and the site's electrical controls and panels will be sized for the possibility of increased EV capacity over time.

Staff Response: Based upon the updated utility plan, which provides conduit to all parking positions, staff considers this requirement to be met.

7. Staff Comment: Provide additional details on site access, specifically with respect to the emergency vehicle access lane.

Applicant Response: The emergency vehicle lane will be utilized infrequently, and will now feature a reinforced turf surface that will support the occasional emergency and service vehicle, while reducing on-site impervious surface. The lane will feature collapsible bollards to prevent unauthorized vehicle access.

Staff Response: Plans have been updated to show a reinforced turf surface for the emergency lane, with clearly delineated measures restricting unauthorized access. Based upon this information, this comment is considered addressed.

B. Site Design and Landscaping

1. Staff Comment: Provide additional information on building material palette.

Applicant Response: Building elevations have been updated to include material selections, and are further augmented by renderings.

Staff Response: Material information has now been provided; however, staff are requesting that the building elevations themselves be updated to include material labels.



Figure 4: Revised Building Elevations

2. Staff Comment: Identify accessible areas of the site for guests, and consider more deliberate accommodation of resident circulation to outdoor spaces, such as the healing garden.

Applicant Response: Building floor plans have been revised to include additional door locations that would allow guests to access the healing garden at the north end of the building. In addition, ADA routes within the site are now provided on the site plan.

Staff Response: 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.

3. Staff Comment: Coordinate with the City Arborist on tree protection in conservation areas, and establishment of a transitional planting zone between site and conservation area.

Applicant Response: Applicant is coordinating with the City Arborist on a revised tree schedule for the transition area between developed site features and the conservation area.

Staff Response: 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.

4. Staff Comment: Consider the use of pervious surface materials within recreational plazas and emergency access lane.

Applicant Response: The site plan now includes a reinforced turf surface within the perimeter loop, and porous pavers as part of the surface materials in the two plazas.

Staff Response: Outdoor programmed areas and the emergency lane now feature pervious materials that better integrate with landscaped and open space areas. The applicant has also provided a number of additional outdoor amenities based upon feedback received through a charette among participants with lived experience of homelessness (Attachment R).

5. Staff Comment: Coordinate with City on placement and design of street and wayfinding signage.

Applicant Response: Wayfinding signage placement was discussed in the Traffic Scoping Meeting held for the project. The design of this signage is not yet finalized, and will be required to go through a separate permitting process to demonstrate compliance with City requirements.

Staff Response: Staff has requested a concept wayfinding signage program for further evaluation.

6. Staff Comment: Highlight on the site plan where snow will be stored on site.

Applicant Response: Snow storage areas are now outlined on the site plan. It is further noted that during heavy snowfall, it may be necessary to remove some snow from the site.

Staff Response: Snow storage areas are now identified. Staff considers this comment to be addressed.

7. Staff Comment: Coordinate with City on finalization of Riverside Subdivision amendment.

Applicant Response: In coordination with City staff, the applicant determined that subdivision plan amendment is not required. All space and bulk zoning dimensional standards have been updated to reflect this on the site plan. This increases the subject parcel's size from approximately 7 acres to more than 28 acres.

Staff Response: As referenced in the applicant's response, staff considers this comment to be no longer applicable, and notes that zoning calculations have been adjusted accordingly. Beyond updating zoning calculations this change has no impacts on the overall site plan.

C. Site Location of Development (SLOD), Stormwater, Grading, and Utilities

1. Staff Comment: Continue to coordinate with Maine DEP on the SLOD application.

Applicant Response: A full SLOD application has been received by the City and forwarded to Maine DEP to determine whether the City has delegated review authority.

Staff Response: Maine DEP has confirmed that the City has delegated review authority to review the SLOD application (Attachment U). For a discussion of findings related to SLOD requirements, please see staff's July 27th memo to the Planning Board.

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.

Applicant Response: A full stormwater management report has now been provided, which outlines 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 Response: 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.
3. Clarify whether the applicant has rights to discharge wastewater to the private sewer at 624 Riverside Street.

Applicant Response: The proposed 8" sanitary service has been modified to extend from the proposed building out to Riverside Street, where it will connect with the existing 12" sewer. This service will remain entirely on the development site.

Staff Response: Staff note that the sewer connection has been revised, and has no further comment.

4. Identify the location of the proposed grease trap.

Applicant Response: A 1,000-gallon grease trap is now shown on the utility plan, positioned just outside of the kitchen space.

Staff Response: 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).

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.

Applicant Response: The grading and drainage plan has been updated to include greater detail for spot grades and related information.

Staff Response: The Grading and Drainage Plan has been updated to include greater detail as requested. This comment is considered addressed.

6. Provide utility 'ability to serve' letters once available.

Applicant Response: Utility capacity letters will be provided upon receipt.

Staff Response: Noted. If not received prior to a public hearing, receipt of capacity letters shall be made a condition of approval.

7. Consider additional plantings along steep embankments to provide greater site stabilization.

Applicant Response: The landscape plan has been updated showing additional plantings along steep slopes.

Staff Response: Additional plantings have been provided, and City staff are continuing to review the grading and drainage plan to ensure the slope at the rear of the property is adequately stable.

8. Prepare a stormwater maintenance agreement.

Applicant Response: A draft stormwater maintenance agreement is included with the stormwater material provided.

Staff Response: The draft stormwater maintenance agreement has been referred to DPW and Corporation Counsel for review.

D. General Comments Posed by Planning Board and Public

1. Board Comment: Provide a write-up of the survey results and work done directly with persons with lived experience of homelessness.

Applicant Response: The applicant has provided survey results from Amistad survey as requested (Attachment R). The applicant is also planning to host a series of targeted design workshops, the first of which occurred on August 9th, to collect input and feedback from individuals with lived experience of homelessness. Key recommendations from this group included:

- Multiple outdoor spaces available for a range of activities, that includes shelter from elements and outdoor heating source.
- Provide ample number of tables.
- Provide mixture of fixed and movable furniture.
- Access to drinking water and handwashing stations
- Space for trans and nonbinary people
- Charging stations for cell phones
- Alert system for guests arriving after dark
- Outdoor clocks
- Secure bicycle parking and outdoor storage
- Chalk wall for community expression
- Memorial space in non-central location.
- Recommended against full perimeter fencing

2. Board Comment: Identify all existing fencing on/near the site for other lots.

Applicant Response: Existing fencing surrounds the Lucas Tree, Suburban Propane and Seacoast Scaffold sites. This represents a nearly continuous border fence to the south and east of the development site. The applicant commits to filling any existing gaps and creating a continuous chain link fence from the Riverside Street right of way line along the southerly site boundaries.

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.

3. Board Comment: Show solid waste enclosure.

Applicant Response: The site plan has been updated to show a 10 by 20-foot concrete pad and solid waste enclosure that is suitable for a waste and recycling container. This pad would be located on the south side of the loading/servicing area and would be enclosed by a black vinyl chain link fence with privacy slats.

Staff Response: The proposed waste enclosure is easily accessible and consistent with City standards for screening. This standard is considered to be met.

4. Board Comment: Provide AutoTURN figures for loading zones and emergency vehicles circumnavigating the site.

Applicant Response: AutoTURN figures have been provided demonstrating adequate space for service and emergency vehicle maneuvers.

Staff Response: Staff agree that there is adequate area for vehicle maneuvering. This comment is considered to be addressed.

5. Board Comment: Verify tower heights and any fall zones that might apply.

Applicant Response: According to the Portland Fire Department, the tower on the Lucas Tree site is 120 feet tall, while the City's on-site tower is 180 feet tall. There are no known setbacks, and City staff have confirmed that no fall zones apply.

Staff Response: Based upon conversations with the Fire Department, this comment is considered to be addressed.

6. General Comment: Per the 2010 Voluntary Response Action Program (VRAP) determination from Maine DEP, does the applicant have the right to develop the Homeless Services Center in this location?

Staff Response: Per materials provided by the applicant, staff understand that the VRAP was amended on November 25, 2019 to eliminate the restriction prohibiting housing on this parcel. (Attachment U)

E. Discussion of Facility Size

In the course of the July 27th workshop, there was much discussion on the size of the proposed facility, and whether or not a 208-bed facility was an appropriate size. In support of this figure, Health and Human Services staff described how the size was arrived at, looking at data collected over the past five years and discerning what the typical peak demand was for its low-barrier facility. This figure then informed the City's site selection process, and subsequent RFP for development of the Homeless Services Center.

With respect to the City's Land Use Code, there are no requirements that would directly limit the size of the proposed facility. The definition for emergency shelter does not contain a size cap, and there are no

dimensional standards that pertain specifically to an emergency shelter's bed count. General conditional use standards, which address traffic, conditions created by the use, and characteristics of a use's operation are comparable or lesser than adjacent uses or other uses permitted within the zone, particularly as this site is located within a moderate/heavy industrial zone. In looking at the use-specific conditional use standards, listed under 6.5.6.B, an emergency shelter may be permitted so long as it contains adequate measures to maintain security, is designed with clear lines of sight, includes a management plan as specified in the subsequent section of this memo, is within ½ mile of fixed public transit, provides on-site social services intended to benefit clients, contains outdoor areas for guest use as well as on-site laundry, kitchen, personal and bicycle storage.

As evidenced in the staff memo prepared for the July 27th workshop, and in the discussion provided above regarding responses to staff and Board comments, it is staff's determination that the project either meets all applicable review standards, or may be compelled to meet such standards through conditions of approval, and there, a 208-bed facility may be approved by the Planning Board.

V. REVIEW OF 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.

The conditional use requirement for an 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.

Per the Planning Board's request, The City of Portland's Health and Human Services Department has provided an updated management plan. An outline of that plan is listed below.

A. Overview of the HSC Management Plan

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 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, METRO services, and other current vehicles to assist with transportation.

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, 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 Police Department, Homeless Services Center staff, Homeless Services Center clients, and an elected official. 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.

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.

B. Review of the HSC Management Plan

While a third-party review is not a requirement, the City has coordinated with the Maine State Housing Authority (Maine Housing), an independent authority created by the Maine State Legislature to address problems of unsafe, unsuitable, overcrowded, and unaffordable housing. MaineHousing closely cooperates with and provides support to the state's various emergency shelters, and plays an active role in advancing the state's policy around homelessness.

In review of the updated HSC Management Plan, MaineHousing staff have provided the following comment (Attachment 6):

- Our team reviewed the Portland Shelter Management Plan and found it to be a solid plan that would be in compliance with all criteria in both the Maine Homeless Solutions Rule and MaineHousing's Emergency Shelter and Housing Assistance Program. It also appears to address all conditions of the City of Portland Land Use Code for Emergency Shelters.

We were especially impressed by the wide range of services and resources that would be made available to shelter guests during their stay, as well as the fact that it would be a 24-hour shelter. We did not encounter anything that we would consider a concern in the plan. Please feel free to contact us with any more specific questions that may arise if it would be helpful to you.

The Portland Police Department has also reviewed the updated management plan, and has provided the following comments (Attachment 7):

- There is a significant portion of the homeless community that prefer to sleep in campsites away from the shelter. The area surrounding this site would most likely be used by this group and these campsites become problematic for a number of reasons. Fencing or other barriers limiting access to the wooded areas could be beneficial. Because the trail system is owned and operated by a private organization HSC staff should be prepared to address issues that might arise on these abutting properties with clients of the HSC. In discussion with the shelter staff there is a plan to have staff conduct safety checks on foot and with the use of video surveillance around the exterior of the shelter.
- Both interior and exterior video monitoring and recording are invaluable to ensuring the safety of both HSC staff and occupants. A system that provides interior and exterior coverage along with immediate access to stored video and remote access would be beneficial to all public safety services as well as HSC staff. A more detailed discussion should occur to discuss placement and types of cameras that would be most beneficial.

- Because of the expansiveness of the site, it would be beneficial to place emergency call boxes along the entrance road and building perimeter to be used in the event of a medical emergency or crime. The management plan includes the use of panic alarms within offices and workspaces. Any non-monitored door should be alarmed and be covered by video recording.
- Bushes, shrubbery or graded lawns can allow a person in medical distress to remain hidden. This type of design should only be used in areas where there is regular foot traffic. The use of Crime Prevention Through Environmental Design (CPTED) concepts should be incorporated, and HSC staff should be prepared to conduct regular perimeter checks to ensure there is no one in need of assistance in any of the secluded areas. Exterior surveillance should include infrared cameras to help identify subjects that might be incapacitated or hidden from view by natural obstructions.
- Upon opening the HSC and PPD staff should provide consistent messaging that any behavior contrary to the values of the neighborhood will not be tolerated. Specific strategies should include use of criminal trespass orders, which could allow the client to be on the HSC property solely for the purpose of obtaining services. Criminal violations should also result in consistent enforcement.

VI. NEXT STEPS

The applicant shall revise plans accordingly and provide a written response to all staff and Board comments. Once this material has been provided, the City shall coordinate with the applicant to schedule a future Planning Board meeting.

VII. ATTACHMENTS

Planning Board Report Attachments

1. Design Review Memo
2. Traffic Review Comments
3. TDM Review Comments
4. DPW Water Resources Comments
5. Stormwater Comments
6. Maine Housing Review Comments
7. Portland Police Review Memo

Applicant's Submittals

- A. Cover Letter
- B. Application Checklist
- C. Right, Title & Interest
- D. Zoning Analysis
- E. Waiver Requests
- F. Financial Capacity
- G. Technical Capability
- 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. HSC Management Plan
- O. AutoTurn Diagram
- P. Winton Scott Architectural Narrative, Floor Plan and Building Elevations
- Q. Stormwater Management Report
- R. HSC Survey and Listening Session Notes
- S. Neighborhood Meeting Certification
- T. Letter of Response to Staff Comments
- U. SLOD Delegated Review Application

Plans

- P1. Cover
- P2. General Notes
- P3. Riverside Subdivision Plan
- P4. Site Layout Plan
- P5. Grading & Drainage Plan
- P6. Scale Grading Enlargement 1
- P7. Scale Grading Enlargement 2
- P8. Erosion & Sediment Control Plan
- P9. Utility Plan
- P10. Overall Stormwater Plan
- P11. Stormwater Plan BMP Plan View 1
- P12. Stormwater Plan BMP Plan View 2
- P13. Stormwater Details 1
- P14. Stormwater Details 2
- P15. Stormwater Details 3
- P16. Site Details 1
- P17. Site Details 2
- P18. Stormdrain and Utility Details
- P19. Water Details
- P20. Electrical Details
- P21. Erosion Control Details
- P22. Erosion Notes
- P23. Site Cross Sections 1
- P24. Site Cross Sections 2
- P25. Utility Profiles
- P26. Landscape Materials
- P27. Planting Plan
- P28. Landscape Details 1
- P29. Landscape Details 2

P30. Landscape Details 3

P31. Site Lighting

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



Matthew Grooms <mgrooms@portlandmaine.gov>

638 Riverside Street - Homeless Shelter

Tom Errico <thomas.errico@tylin.com>

Thu, Aug 19, 2021 at 8:12 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Hi Matt – The following is a summary of traffic study scoping meeting details and the status of responses.

- The applicant shall estimate peak hour traffic volumes entering and exiting the site. This estimate will be based upon documentation provided by the City Department of Human Services.

Status: The applicant has provided an estimate of traffic volumes entering and exiting the site based upon site specific characteristics. The applicant has estimated 22 AM peak hour trips and 13 PM peak hour trips. I find this estimate to be reasonable. This level of traffic is not expected to have a significant impact on traffic mobility and safety in the vicinity of the project.

- An evaluation of the driveway shall be performed as it relates to sight distance and driveway separation standards.

Status: The applicant has provided information that notes the project meets City standards for sight distance and driveway separation. I have no further comment.

- Pedestrian facility improvements will be required. The applicant noted that sidewalk improvements will be implemented on the west side of Riverside Street for safe connectivity to and from Forest Avenue. It was recommended that signage be provided at the Forest Avenue/Riverside Street intersection and at the outbound Metro bus stop informing center residents of suggested pedestrian walking routes, so street crossings occur at the signalized Forest Avenue/Riverside Street intersection. Additionally, pedestrian traffic signal equipment will need to be upgraded and the City will identify specific requirements for implementation.

Status:

- The applicant is proposing to construct a sidewalk section 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. It is my understanding Bruce Hyman will be providing a comment regarding sidewalk width requirements.
- 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 relates to directional signage between the site and METRO stops.

If you have any questions, please contact me.

Best regards,

8/20/2021

City of Portland Mail - 638 Riverside Street - Homeless Shelter

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Instagram

Portland Police Department Memorandum

To: City of Portland Planning Board
Fm: Major Robert Martin
Dt: August 19, 2021
Re: Safety Assessment of Homeless Service Center

The homeless service center (HSC) proposed for 654 Riverside Street is a notable change in the current shelter models used in the city. With this change comes challenges for Police, Fire and EMS services. The proposal includes a single facility serving the needs of more than 200 unsheltered individuals all in a single location. This HSC will be open 24-hours a day, 7-days a week providing on-site meals, health care services and counseling.

The HSC will be situated on 7-acres of land abutted by the Presumpscot River, several industrial businesses, a sole single family residence and several acres of wooded land. It will be set back approximately 500' from Riverside Street and accessed by a single road. Parking for an existing public trail sits next to the entrance with the trail running along the North side of the property and continues behind and to the north of the site.

The structure is encircled by a paved walking path that is sufficiently wide for access by emergency vehicles. The lighting diagram shows that there will be LED lighting along the exterior of the building sufficient to illuminate the immediate area around the structure. Parking and perimeter areas will have fixtures attached to poles to sufficiently light those areas as well.

The landscaping diagram includes proposals for raised garden beds, shrubs and bushes along with open grass covered areas throughout the property. There is one open air / outdoor seating area that appears to be approximately 2000 square feet in area that will be fenced and can only be accessed from within the facility. The site plans do not show any fencing between the HSC property and any of the abutting properties. There is a 21 acre conservation easement area on the north side of the property that is heavily wooded and contains an existing mixed use trail system¹. Most of the abutting property North and West of the site is heavily wooded.

Within the HSC, there are three proposed sleeping areas each with two doors exiting onto the walking path on the West side of the property. The management plan shared by shelter staff indicates that these doors are alarmed to alert staff when they are opened. Within the sleeping areas staff will be able to observe the dormitories from raised platforms. Plexi-glass dividers will be used between individual sleeping areas to allow staff unobstructed views of the space. There is a day room/cafeteria with space for 212 people. There are several shared space meeting and conference rooms along with individual office space.

¹ <https://www.mainerailfinder.com/trails/trail/presumpscot-network-and-riverton-trolley-park>

Material provided for this review lists no monies allocated for security systems such as video or panic alarms. The management plan does indicate that video surveillance and panic alarms are to be part of the safety plan. The plan indicates that security staff will man cameras that are strategically placed inside and outside the shelter, screening of clients will occur at the main entrance. Weapons, drugs and other prohibited items will not be allowed within the shelter. There will be a location available to the clients to store backpacks and other personal items prior to the screening process. This is to discourage clients from leaving prohibited items outside of the shelter.

A review of the site plan shows several potential safety issues:

There is a significant portion of the homeless community that prefer to sleep in campsites away from the shelter. The area surrounding this site would most likely be used by this group and these campsites become problematic for a number of reasons. Fencing or other barriers limiting access to the wooded areas could be beneficial. Because the trail system is owned and operated by a private organization HSC staff should be prepared to address issues that might arise on these abutting properties with clients of the HSC. In discussion with the shelter staff there is a plan to have staff conduct safety checks on foot and with the use of video surveillance around the exterior of the shelter.

Both interior and exterior video monitoring and recording are invaluable to ensuring the safety of both HSC staff and occupants. A system that provides interior and exterior coverage along with immediate access to stored video and remote access would be beneficial to all public safety services as well as HSC staff. A more detailed discussion should occur to discuss placement and types of cameras that would be most beneficial.

Because of the expansiveness of the site it would be beneficial to place emergency call boxes along the entrance road and building perimeter to be used in the event of a medical emergency or crime. The management plan includes the use of panic alarms within offices and workspaces. Any non-monitored door should be alarmed and be covered by video recording.

Bushes, shrubbery or graded lawns can allow a person in medical distress to remain hidden. This type of design should only be used in areas where there is regular foot traffic. The use of Crime Prevention Through Environmental Design (CPTED) concepts should be incorporated, and HSC staff should be prepared to conduct regular perimeter checks to ensure there is no one in need of assistance in any of the secluded areas. Exterior surveillance should include infrared cameras to help identify subjects that might be incapacitated or hidden from view by natural obstructions.

Upon opening the HSC and PPD staff should provide consistent messaging that any behavior contrary to the values of the neighborhood will not be tolerated. Specific strategies should include use of criminal trespass orders, which could allow the client to be on the HSC property solely for the purpose of obtaining services. Criminal violations should also result in consistent enforcement.

The Portland Police Department would like to express our thanks for the opportunity to collaborate on this project. The creation of such a welcoming and professional facility will only tend to encourage ownership and discourage behavior that is contrary to the community's values and safety. We look forward to our continued involvement and review of any impacts moving forward so as to enhance public safety and public health related to this proposed project.



Matthew Grooms <mgrooms@portlandmaine.gov>

Review Comments - HSC 638 Riverside

Benjamin Pearson <bnp@portlandmaine.gov>

Fri, Aug 20, 2021 at 10:00 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Bradley Roland <brad@portlandmaine.gov>, Keith Gray <kgray@portlandmaine.gov>

Hi Matt,

I've got it. I have the following comments:

They did address the grease interceptor connection and sanitary sewer line but the following needs to be discussed:

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

No details were provided on the drop manhole.

See attached details from the City's technical manual that could provide a basis of updated details.

Additionally, Brad is waiting for updated information from Steve Bushey for the sewer capacity information.

I have not reviewed the updated stormwater information yet.

Ben

[Quoted text hidden]

**City of Portland Technical Manual Details.pdf**

132K



Matthew Grooms <mgrooms@portlandmaine.gov>

HSC Review Comments

Lauren Swett <lswett@woodardcurran.com>
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Fri, Aug 20, 2021 at 10:01 AM

Hi Matt,

I have been focusing my review on their stormwater management system, and may have a few additional comments or questions later. The proposed stormwater management system meets the General Standards, per the Maine DEP Chapter 500 and Section 5 of the City of Portland's Technical Manual. I have the following comments:

- 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 that 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 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 landscaping plan.

I am still working my way through the drainage system double checking elevations and where everything is flowing. I know water resources had some concerns about flows to the back slope, and that has been significantly reduced, but I'll still probably talk to them further. They also uploaded the SLOD to the folder today I believe, so I will take a look at that next week. I'll continue to look through the materials, but generally their stormwater management information provided is significantly improved over the original application, and I don't anticipate anything more than some minor additional comments.

If you have any questions, let me know!

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.



Matthew Grooms <mgrooms@portlandmaine.gov>

Portland Homeless Services Center - Management Plan Review

Lauren Bustard <lbustard@mainehousing.org>

Tue, Aug 17, 2021 at 1:23 PM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Dan Brennan <dbrennan@mainehousing.org>, Michael Shaughnessy <mshaughnessy@mainehousing.org>, Kelly Watson <kwatson@mainehousing.org>

Hi Ma hew – Our team reviewed the Portland Shelter Management Plan and found it to be a solid plan that would be in compliance with all criteria in both the Maine Homeless Solutions Rule and MaineHousing's Emergency Shelter and Housing Assistance Program. It also appears to address all conditions of the City of Portland Land Use Code for Emergency Shelters.

We were especially impressed by the wide range of services and resources that would be made available to shelter guests during their stay, as well as the fact that it would be a 24-hour shelter. We did not encounter anything that we would consider a concern in the plan. Please feel free to contact us with any more specific questions that may arise if it would be helpful to you.

Thank you for giving us the opportunity to review the City's plan. We are looking forward to working with you as these plans become a reality.

All the best,

Lauren

Lauren Bustard

Senior Director of Programs

MaineHousing

26 Edison Drive

Augusta, ME 04330

207-626-4613

207-458-4436 (cell)

[Quoted text hidden]

Portland Police Department Memorandum

To: City of Portland Planning Board
Fm: Major Robert Martin
Dt: August 19, 2021
Re: Safety Assessment of Homeless Service Center

The homeless service center (HSC) proposed for 654 Riverside Street is a notable change in the current shelter models used in the city. With this change comes challenges for Police, Fire and EMS services. The proposal includes a single facility serving the needs of more than 200 unsheltered individuals all in a single location. This HSC will be open 24-hours a day, 7-days a week providing on-site meals, health care services and counseling.

The HSC will be situated on 7-acres of land abutted by the Presumpscot River, several industrial businesses, a sole single family residence and several acres of wooded land. It will be set back approximately 500' from Riverside Street and accessed by a single road. Parking for an existing public trail sits next to the entrance with the trail running along the North side of the property and continues behind and to the north of the site.

The structure is encircled by a paved walking path that is sufficiently wide for access by emergency vehicles. The lighting diagram shows that there will be LED lighting along the exterior of the building sufficient to illuminate the immediate area around the structure. Parking and perimeter areas will have fixtures attached to poles to sufficiently light those areas as well.

The landscaping diagram includes proposals for raised garden beds, shrubs and bushes along with open grass covered areas throughout the property. There is one open air / outdoor seating area that appears to be approximately 2000 square feet in area that will be fenced and can only be accessed from within the facility. The site plans do not show any fencing between the HSC property and any of the abutting properties. There is a 21 acre conservation easement area on the north side of the property that is heavily wooded and contains an existing mixed use trail system¹. Most of the abutting property North and West of the site is heavily wooded.

Within the HSC, there are three proposed sleeping areas each with two doors exiting onto the walking path on the West side of the property. The management plan shared by shelter staff indicates that these doors are alarmed to alert staff when they are opened. Within the sleeping areas staff will be able to observe the dormitories from raised platforms. Plexi-glass dividers will be used between individual sleeping areas to allow staff unobstructed views of the space. There is a day room/cafeteria with space for 212 people. There are several shared space meeting and conference rooms along with individual office space.

¹ <https://www.mainerailfinder.com/trails/trail/presumpscot-network-and-riverton-trolley-park>

Material provided for this review lists no monies allocated for security systems such as video or panic alarms. The management plan does indicate that video surveillance and panic alarms are to be part of the safety plan. The plan indicates that security staff will man cameras that are strategically placed inside and outside the shelter, screening of clients will occur at the main entrance. Weapons, drugs and other prohibited items will not be allowed within the shelter. There will be a location available to the clients to store backpacks and other personal items prior to the screening process. This is to discourage clients from leaving prohibited items outside of the shelter.

A review of the site plan shows several potential safety issues:

There is a significant portion of the homeless community that prefer to sleep in campsites away from the shelter. The area surrounding this site would most likely be used by this group and these campsites become problematic for a number of reasons. Fencing or other barriers limiting access to the wooded areas could be beneficial. Because the trail system is owned and operated by a private organization HSC staff should be prepared to address issues that might arise on these abutting properties with clients of the HSC. In discussion with the shelter staff there is a plan to have staff conduct safety checks on foot and with the use of video surveillance around the exterior of the shelter.

Both interior and exterior video monitoring and recording are invaluable to ensuring the safety of both HSC staff and occupants. A system that provides interior and exterior coverage along with immediate access to stored video and remote access would be beneficial to all public safety services as well as HSC staff. A more detailed discussion should occur to discuss placement and types of cameras that would be most beneficial.

Because of the expansiveness of the site it would be beneficial to place emergency call boxes along the entrance road and building perimeter to be used in the event of a medical emergency or crime. The management plan includes the use of panic alarms within offices and workspaces. Any non-monitored door should be alarmed and be covered by video recording.

Bushes, shrubbery or graded lawns can allow a person in medical distress to remain hidden. This type of design should only be used in areas where there is regular foot traffic. The use of Crime Prevention Through Environmental Design (CPTED) concepts should be incorporated, and HSC staff should be prepared to conduct regular perimeter checks to ensure there is no one in need of assistance in any of the secluded areas. Exterior surveillance should include infrared cameras to help identify subjects that might be incapacitated or hidden from view by natural obstructions.

Upon opening the HSC and PPD staff should provide consistent messaging that any behavior contrary to the values of the neighborhood will not be tolerated. Specific strategies should include use of criminal trespass orders, which could allow the client to be on the HSC property solely for the purpose of obtaining services. Criminal violations should also result in consistent enforcement.

The Portland Police Department would like to express our thanks for the opportunity to collaborate on this project. The creation of such a welcoming and professional facility will only tend to encourage ownership and discourage behavior that is contrary to the community's values and safety. We look forward to our continued involvement and review of any impacts moving forward so as to enhance public safety and public health related to this proposed project.



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 Plan¹ for the project area.

The City has engaged DC Predevelopment LLC in response to RFP #21041². 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 Trails³. 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 of 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:
 - o 4 exam rooms
 - o Reception and waiting area
 - o Patient/staff bathrooms
 - o Lab
 - o Storage
 - o 2 offices
 - o 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
 - o Cover Letter/Project Description/Operational Key Plan/Operations Management Plan
 - o Major Site Plan Application Checklist/Conditional Use Application
 - o Right, Title and Interest
 - o Zoning Assessment
 - o Existing and/or Proposed Easements (please see Survey Plan)
 - o Waiver Request and Waiver Table
 - o Financial Capacity
 - o Technical Capability
- Transportation
 - o Transportation Narrative
- Environmental and Landscape Features & Stormwater
 - o Narrative to Address Standards
- Public Infrastructure and Safety
 - o Narrative to Address Standards
- Site Design
 - o 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

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, MEIP Applications\Local\major site plan\app_docs\1_ltr_grimando_major site plan_06.18.2021.docx



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-Site²

- 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 Development³

- 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
Guest Name Printed

Date

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.



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

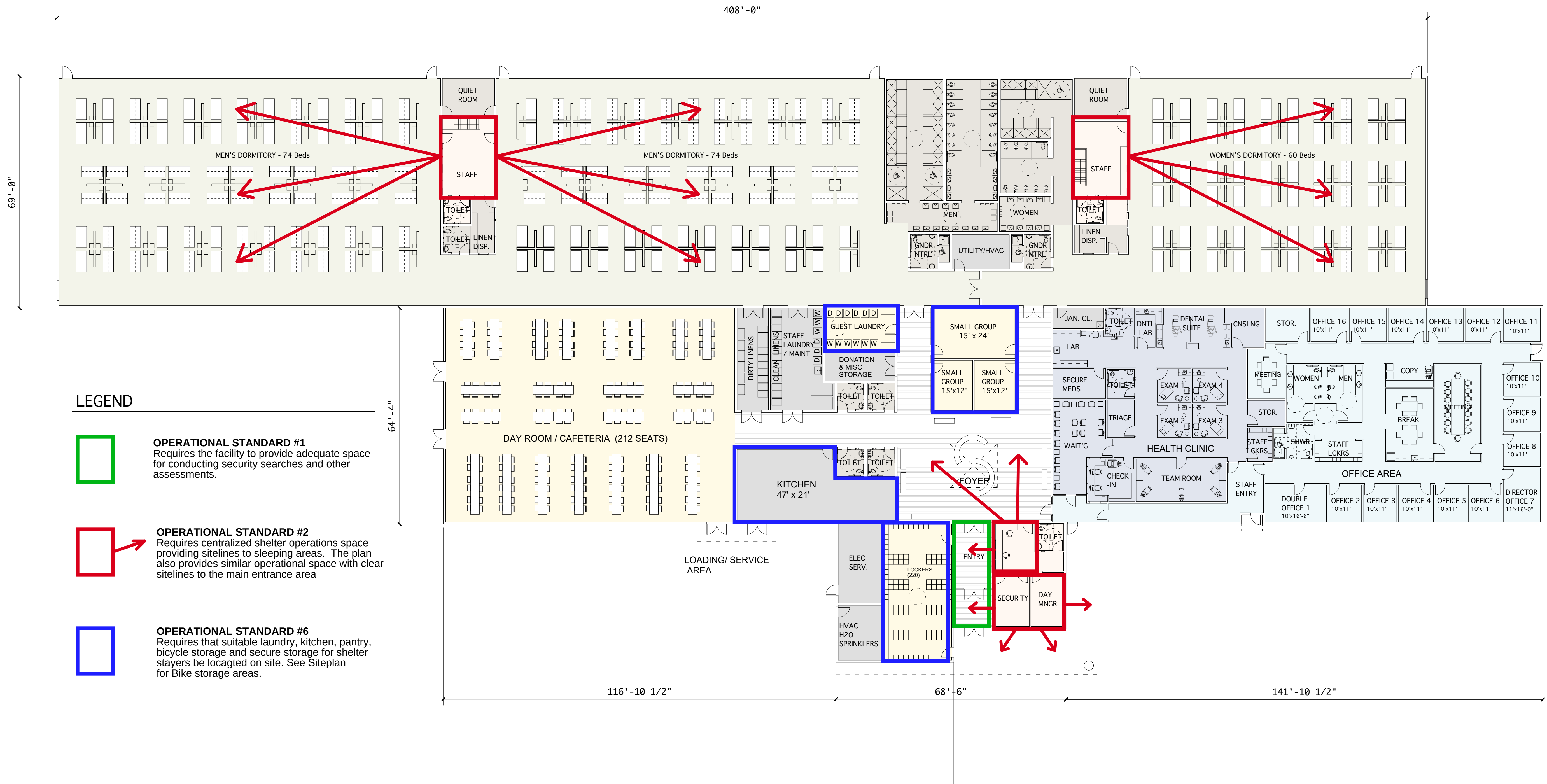
BUILDING CONCEPT SET

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

**OPERATIONAL
STANDARDS
KEY PLAN**

A1.2

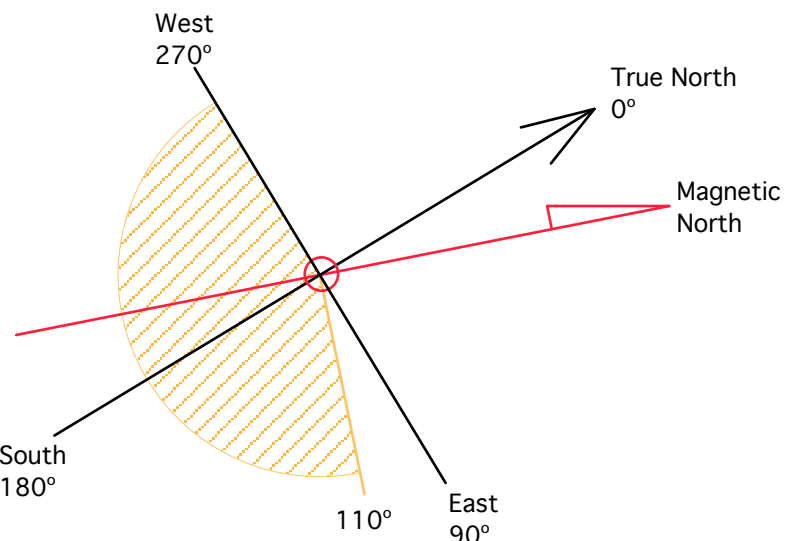
JUNE 14, 2021



OPERATIONAL STANDARDS KEY PLAN

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

51,690 S.F.



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

☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
☒	NA	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	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
☒	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
☐	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	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

☒	N/A	Project Description Cover letter with detailed project description
☒	N/A	Completed Checklist – Conditional Use (this document)
☒	N/A	Evidence of Right, Title and Interest Deeds, leases, or purchase and sales agreements

CONDITIONAL USE STANDARDS AND CRITERIA

☒	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.
☒	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.
☒	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.
☒	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.

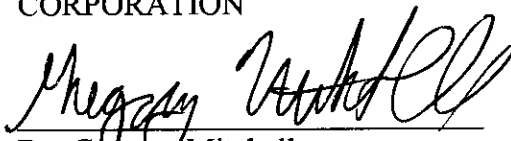
QUITCLAIM DEED WITH COVENANT

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

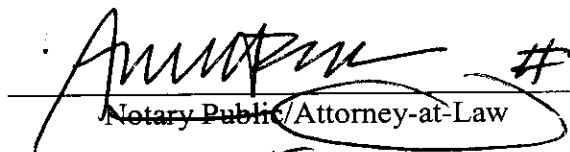
State of Maine
Cumberland, ss.

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,

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


Notary Public/Attorney-at-Law
Ann M. Freeman
Print or Type Name

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.
<i>Technical Manual Section 5.III – Chapter 500 Flooding standard</i>	<i>MeDEP Chapter 500 provisions related to Stormwater management</i>	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.
<i>Section 14.6.1.E Transportation Standards requiring a Transportation Demand Management Plan (TDM)</i>	<i>All Commercial, Institutional, or mixed use development of 50,000 SF or more total floor area shall design and implement a TDM plan</i>	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.



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:

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



TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
1.0	Introduction	1
2.0	Existing Site Conditions	2
3.0	Proposed Project.....	4
4.0	References	4
5.0	Modeling Software.....	4
6.0	Presentation of Analysis.....	5
7.0	Assumptions.....	5
8.0	Stormwater Management Objectives	5
9.0	Stormwater Management Quality Summary.....	5
10.0	Chapter 500 Treatment Percent Compliance.....	7
11.0	Erosion Control	7
12.0	Operations and Maintenance.....	7
13.0	Permit Requirements.....	7

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 Trails¹. 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)

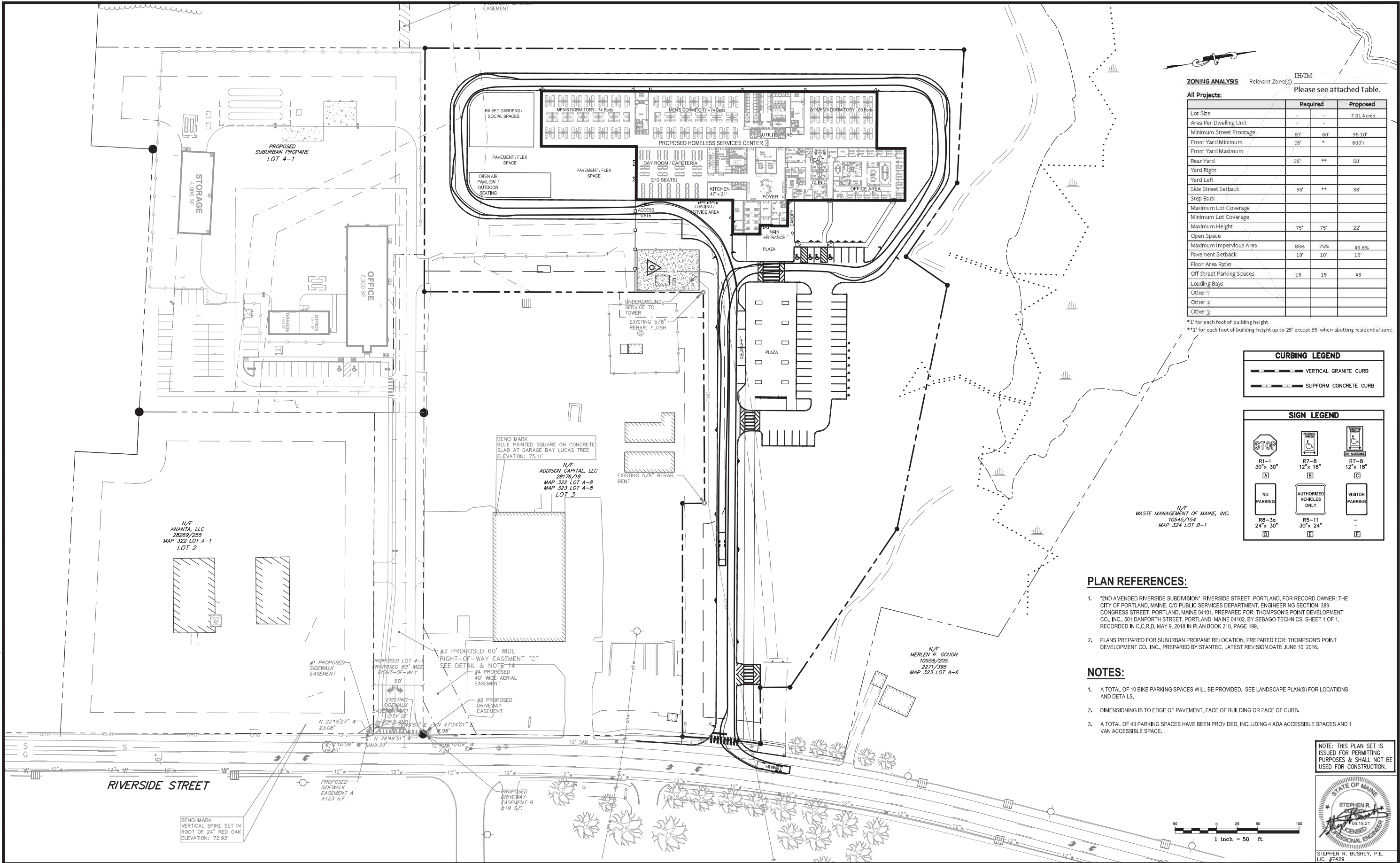
- *Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3)*
 - *Emergency vehicle access*
 - *Consistency with public safety standards (Technical Manual, Section 3)*
- a. The site has been designed to promote a safe and inviting visitor experience. 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.

U:\3824.01_Perland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-SITE.dwg - 6/21/2021 4:39 PM



ZONING ANALYSIS
All Projects:
Please see attached Table.

	Required	Proposed
Lot Size	-	7.01 Acres
Area Per Dwelling Unit	-	-
Minimum Street Frontage	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'	22'
Open Space	-	-
Maximum Impervious Area	85%	49.6%
Pavement Setback	10'	10'
Floor Area Ratio	-	-
Off Street Parking Spaces	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]
	NO PARKING R8-3a 24"x 30" [D]
	AUTHORIZED VEHICLES ONLY R5-11 30"x 24" [E]
	VISITOR PARKING R7-8 12"x 18" [C]

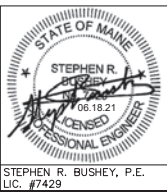
PLAN REFERENCES:

- "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 TECHNIQS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 189.
- PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

- A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
- DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
- 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.



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 Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		



Relationships. Responsiveness. Results.
www.gorriilpalmer.com
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.	-
-------------	---

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

FEATURES

- Small size companion to Viper Large
- Wide choice of different LED wattage configurations
- Nine optical distributions
- Designed to replace HID lighting up to 400W MH or HPS
- Suitable for wet locations



See Certification Specifications

CONTROL TECHNOLOGY



RELATED PRODUCTS

8 Viper Large

LNC2

SMALL LED LITEPAK

FEATURES

- 60% more lumens and increased performance than smaller LNC models
- 3000K, 4000K and 5000K as well as Amber
- Type II, III and IV distributions available for a variety of application needs
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada
- Stock versions available for fast service
- Full cut-off, neighbor friendly, IDA approved
- Optional photocontrol for additional energy savings



See Certification Specifications

CATALOG #:



Standard 9, 12, and 18L Version*



Prismatic Version



Surface Conduit Hubs, Sensor & SiteSync Version



Battery Backup Version

*Shown with CS acrylic diffuser

RELATED PRODUCTS

8 LNC

8 INC3

8 LNC4

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.

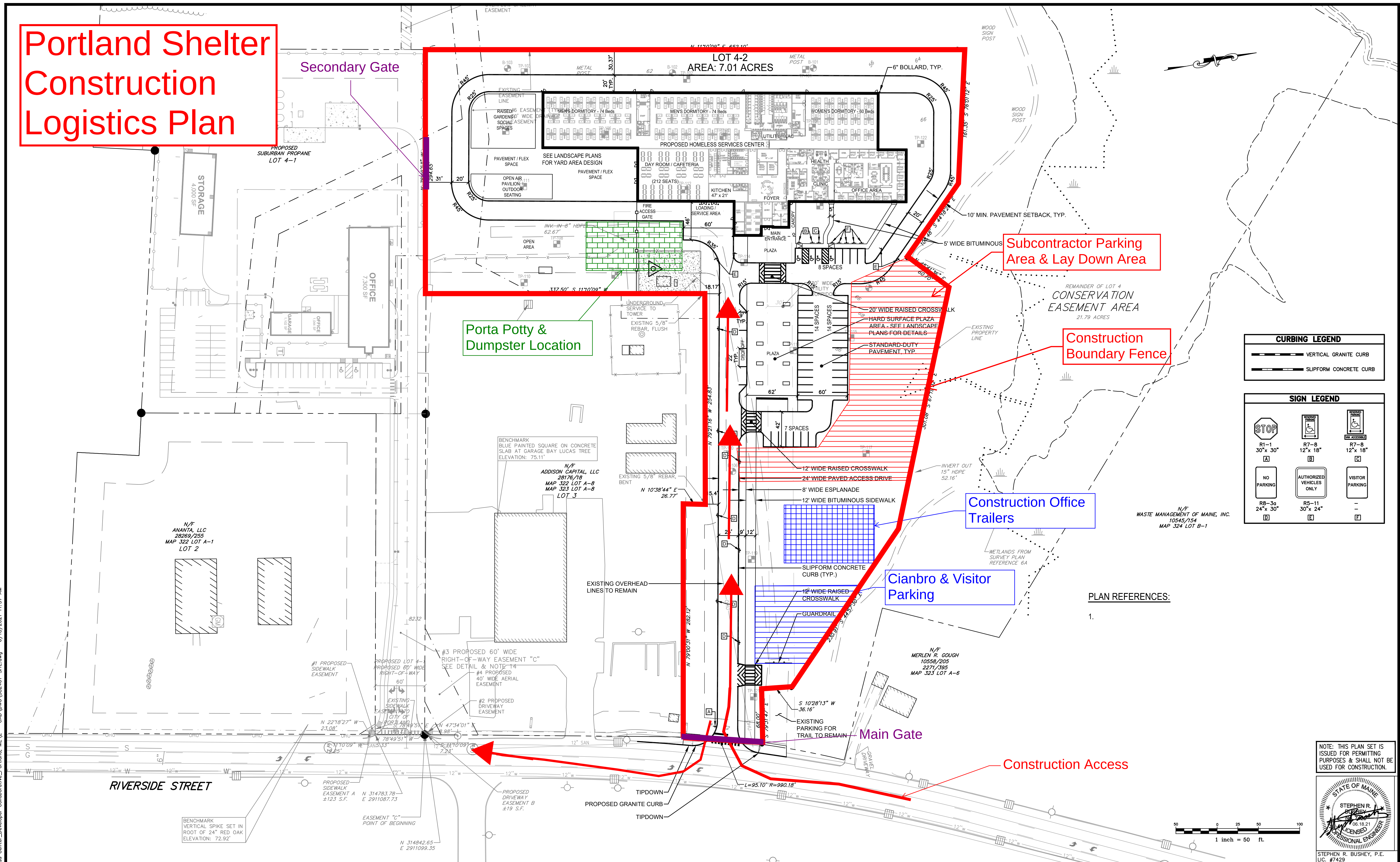
7. *An outdoor area for guest use shall be provided on-site with adequate screening to protect privacy of guests.*

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



U:\3824.01\Portland Shelter Construction Logistics Plan.dwg - 6/18/2021 11:57 AM

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 Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		



Relationships. Responsiveness. Results.
www.gorrellpalmer.com
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

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 stayers². 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 day space- 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 day space 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

Overview of the Process to Replace the Oxford Street Shelter



During site plan approval, the Planning Board will ensure that the plan for the new HSC complies with the ordinance requirements we passed in 2017. Emergency Shelters must have:

- adequate space for security searches and other assessments
- a centralized operations office with sightlines to sleeping areas
- a management plan with: 1) management responsibilities; 2) a process for addressing neighborhood concerns; 3) staffing; 4) access restrictions; 5) on-site surveillance; 6) safety measures; 7) controls for resident behavior and noise levels; 8) monitoring reports
- adequate access to and from METRO service as well as strategies to help residents utilize transit
- on-site services such as case management, life skills training, counseling, employment and educational services, and housing assistance.
- suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for guests
- an outdoor area for guests that is screened for privacy


**We
are here.**

The Riverside location is in the IL Zone. Examples of other allowable uses in this zone include bakeries, breweries, bottling plants, pharmaceuticals, machine shops, food packaging, indoor amusement and recreation centers, plant and tree nurseries, lumber yards, repair services (including all types of automotive repair), day care facilities, dairies, dog training services, intermodal transportation facilities, and utility substations.



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 vpd¹
- Sight lines in each direction at driveway exceed 500 feet²
- 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)	ITE⁶ 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.

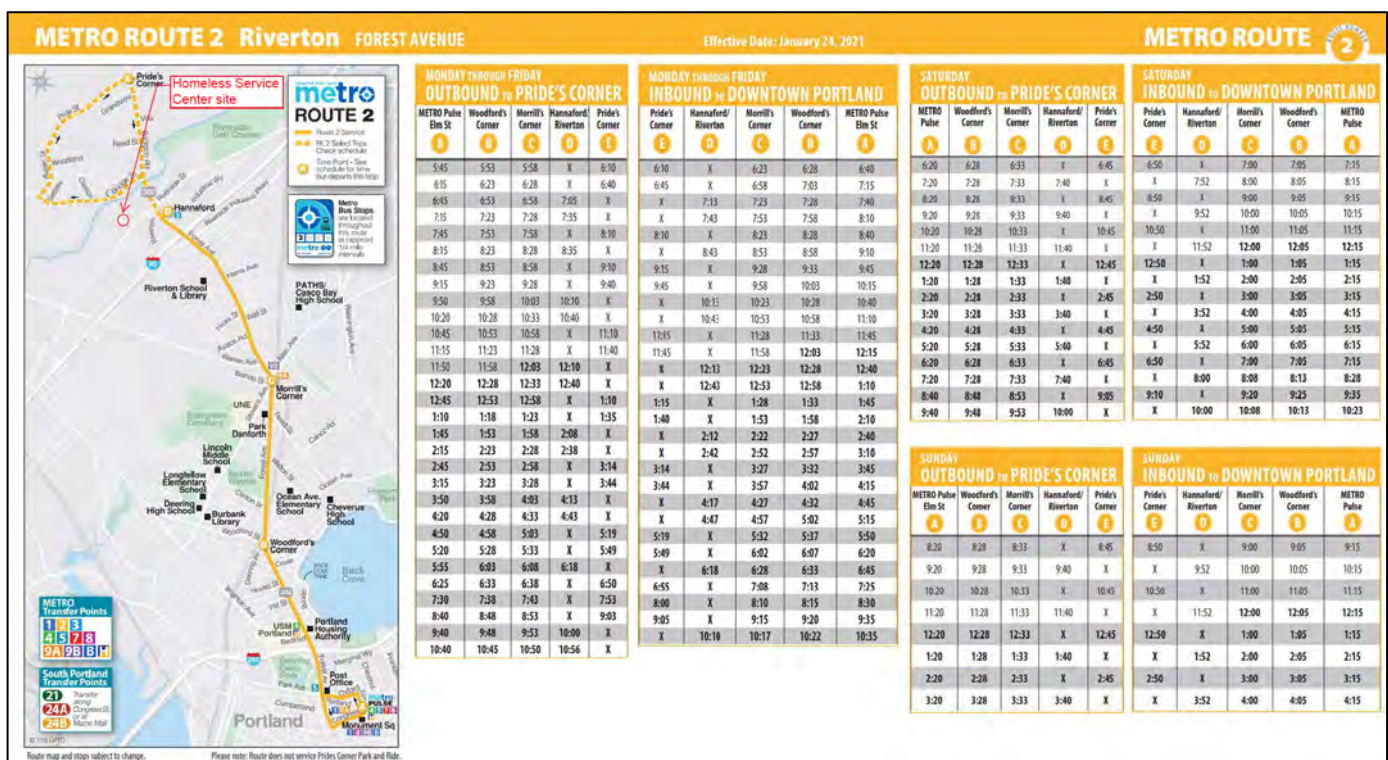


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

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.

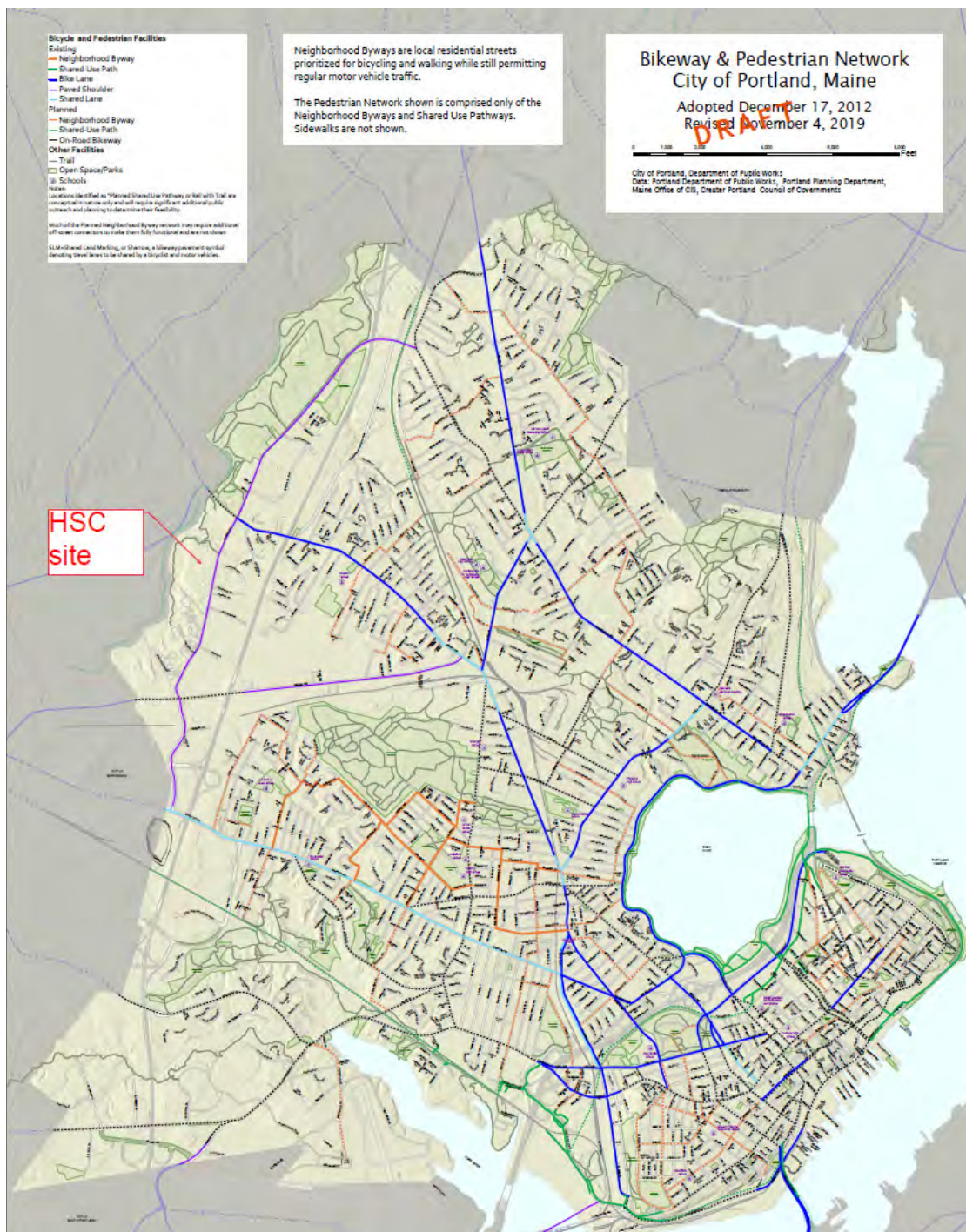


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (CITY DPW)

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
Guest Name Printed

Date

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.

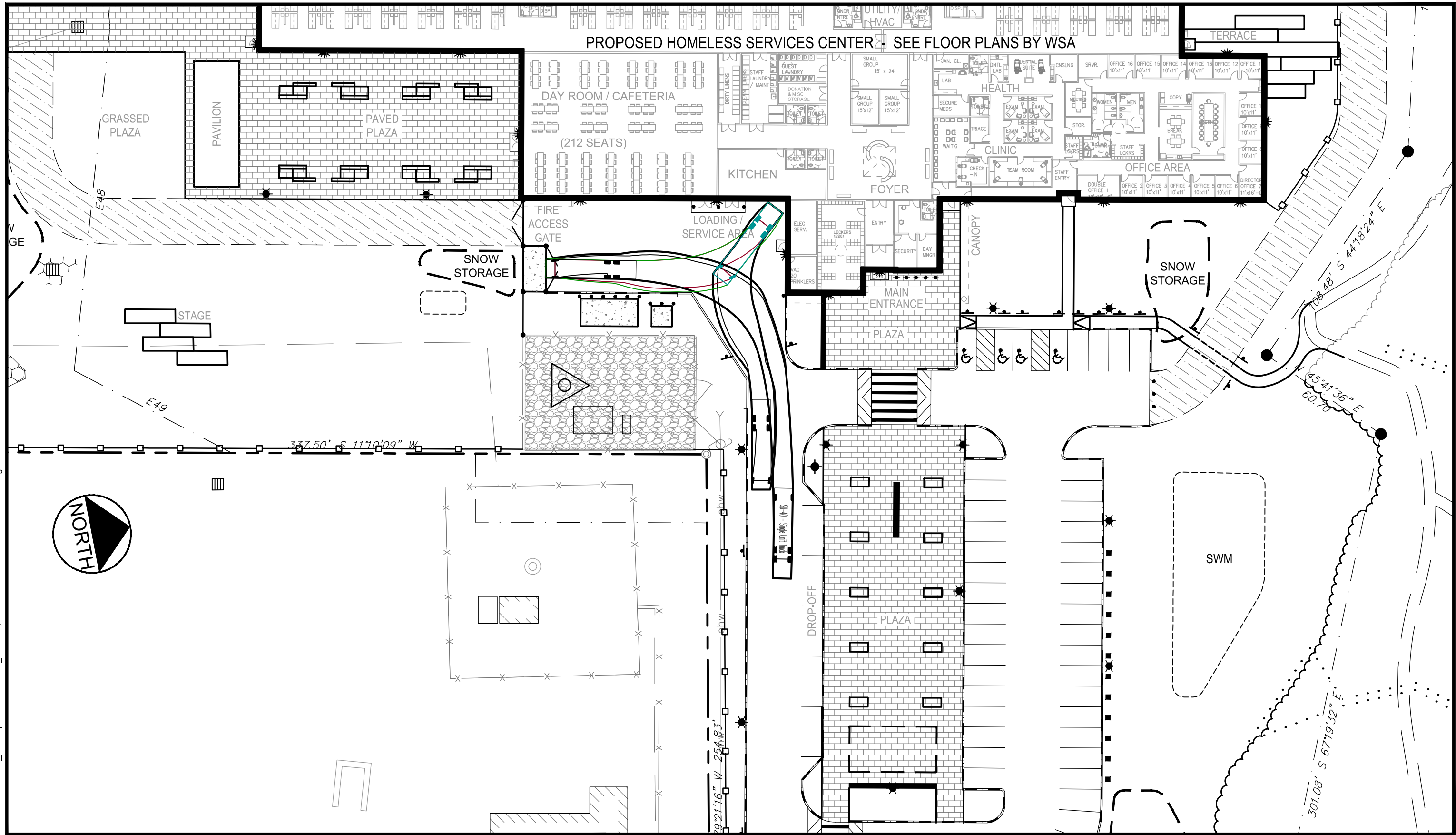
Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

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

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-PBASE.dwg chuck.dube 8/12/2021 3:06 PM





**GORRILL
PALMER**

www.gorrillpalmer.com
207.772.2515

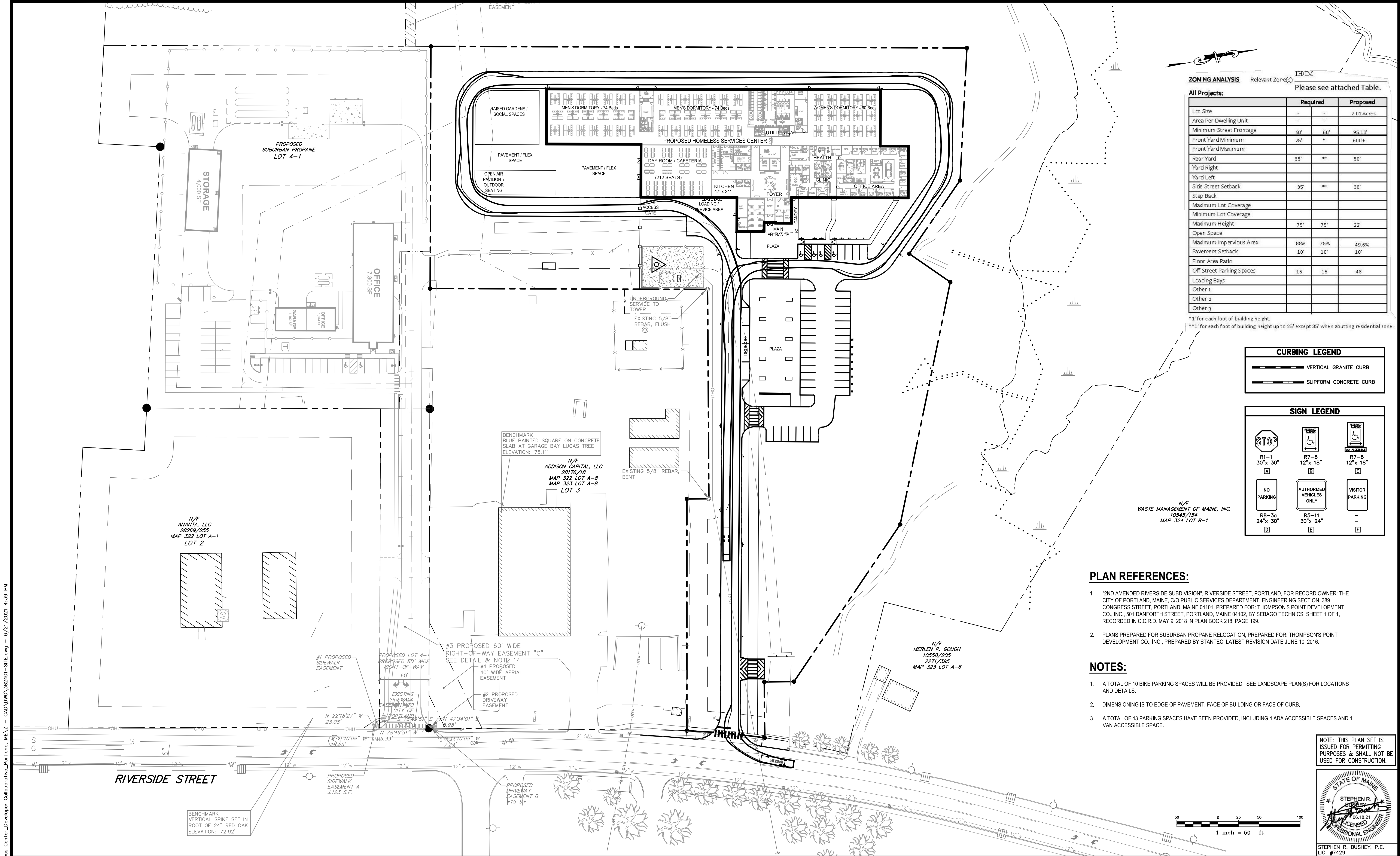
DRAWN:	CDD	DATE:	AUG. 11, 2021
DESIGNED:	SRB	SCALE:	1" = 40'
CHECKED:	SRB	JOB NO.	3824.01
FILE NAME:	382401-XBASE		

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET, PORTLAND, MAINE

**GARBAGE TRUCK ACCESS /
TURNING MOVEMENTS**

FIGURE
1

U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-SITE.dwg - 6/21/2021 4:39 PM



Rev.	Date	Revision	Design: SRB Checked: SRB File Name: 382401-SITE.dwg	Draft: CDD Scale: AS NOTED Job No.: 3824.01	Date: JUNE 2021		Relationships. Responsiveness. Results. www.gorrillpalmer.com 207.772.2515	Drawing Name: SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS	Drawing No. -
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW	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.					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

ATTACHMENT C



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 afford 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



Entrance Plaza



Cafeteria / Dayroom



East Facade



South Facade



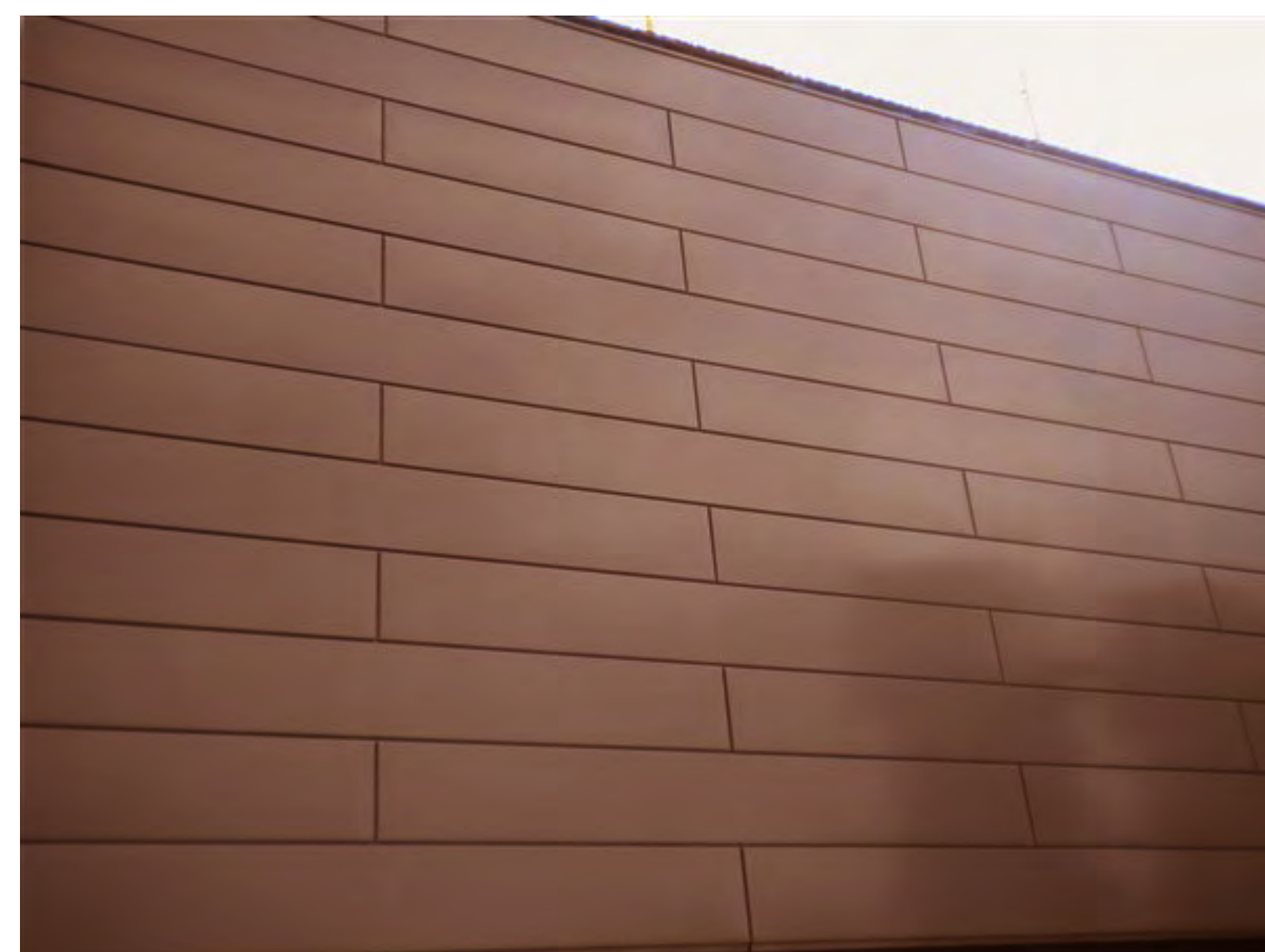
North Facade



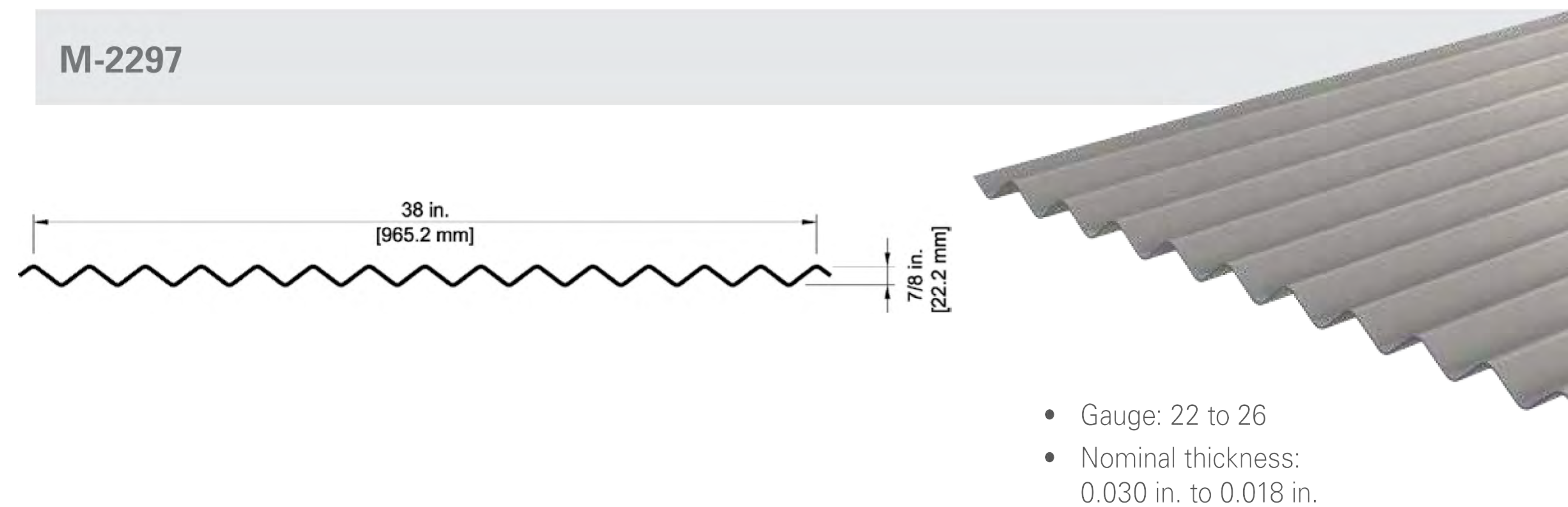
West Facade



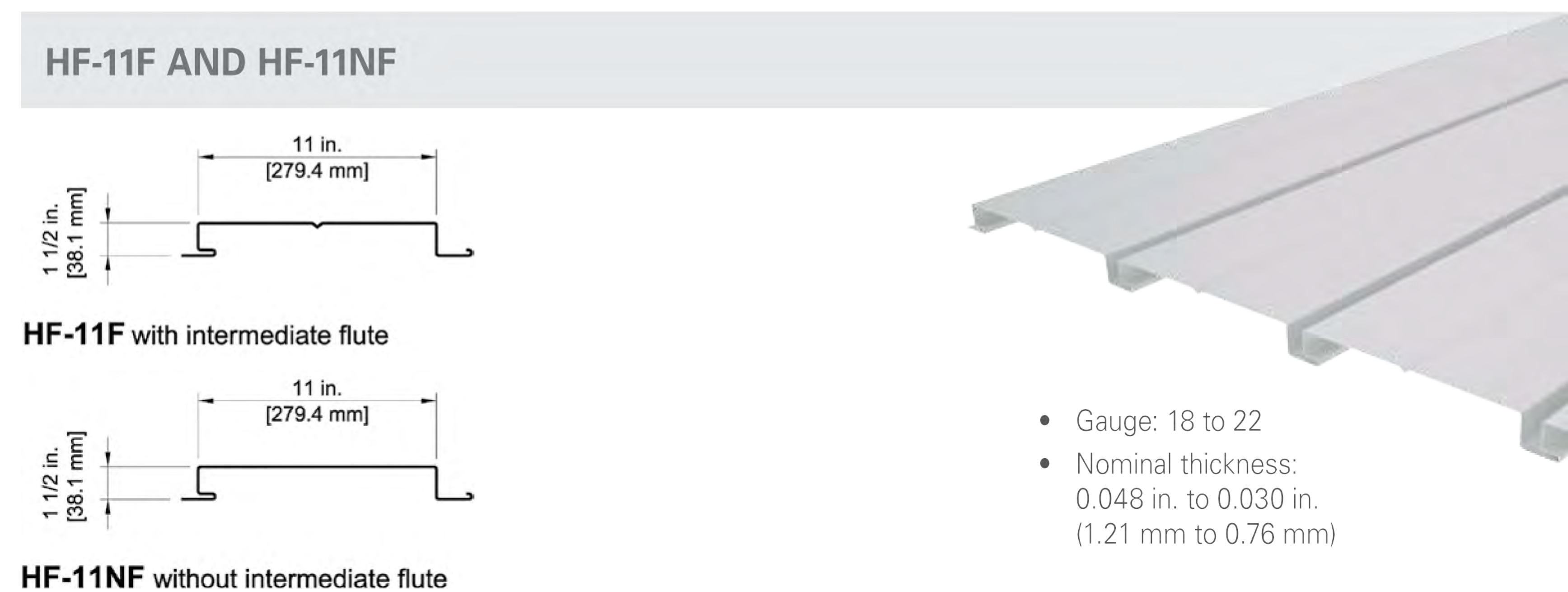
BRICK - Front Entrance Area



ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



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

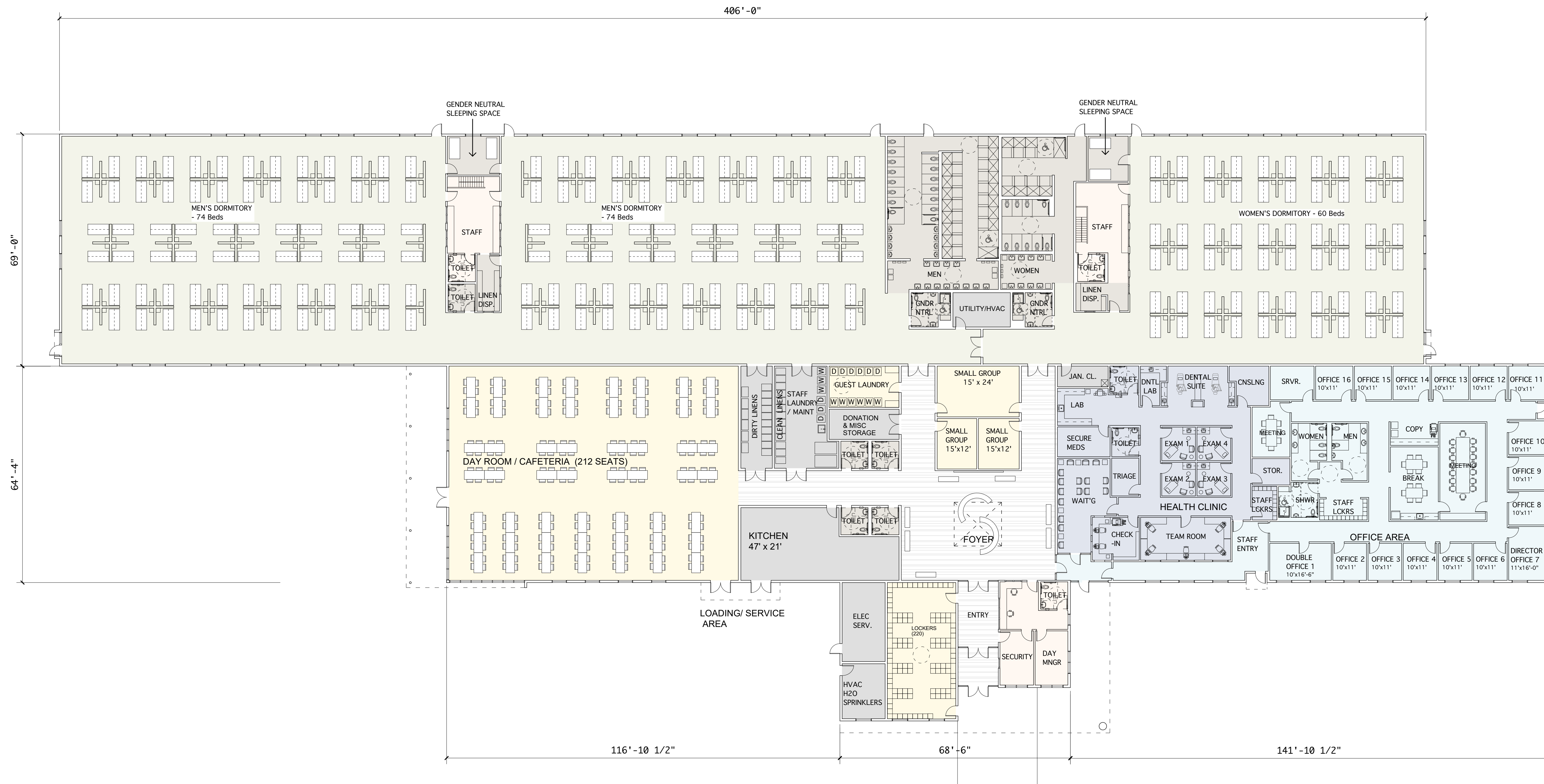


VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)



Winton Scott Architects

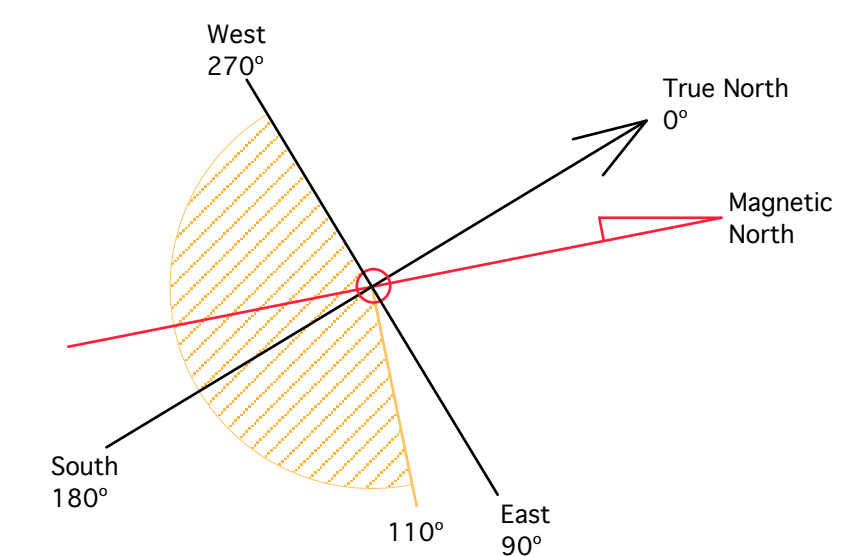
5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

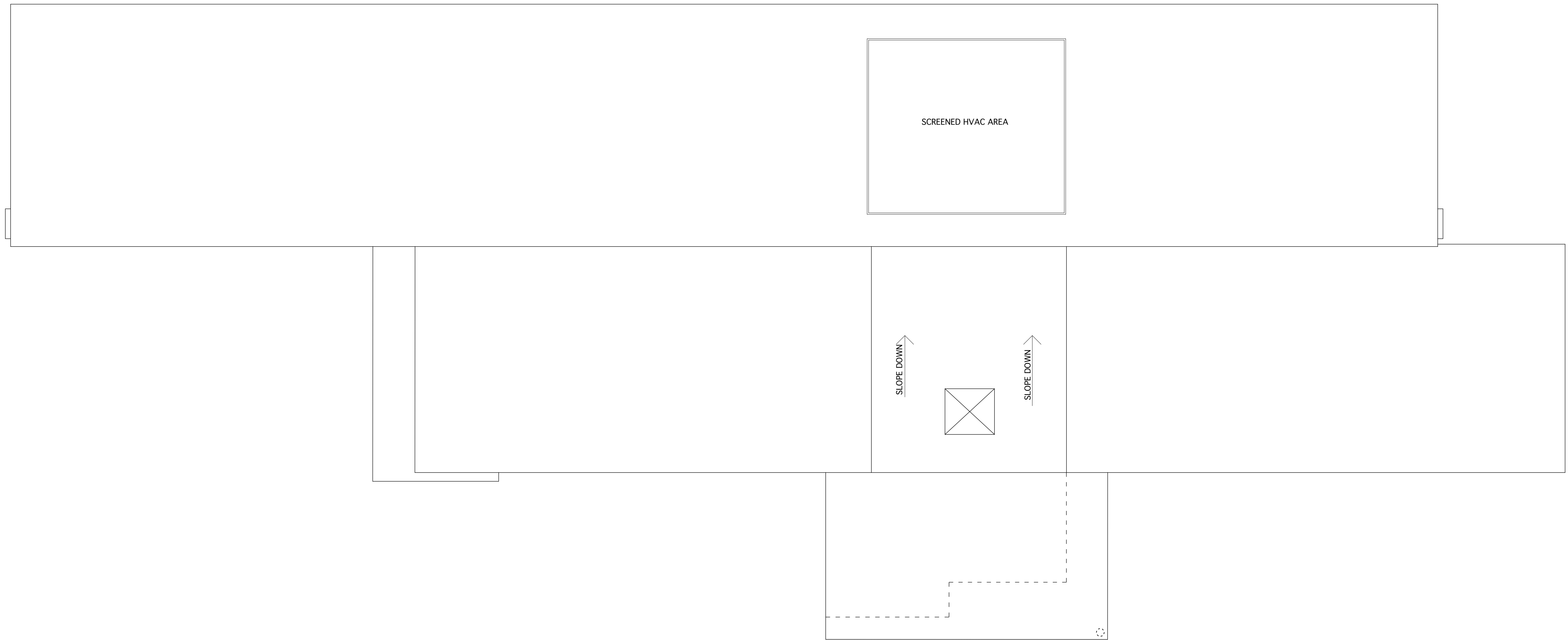


FIRST FLOOR CONCEPT PLAN

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

51,690 S.F.





ROOF PLAN

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



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**



TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
1.0	INTRODUCTION	1
2.0	EXISTING SITE CONDITIONS	1
3.0	PROPOSED PROJECT	3
4.0	REFERENCES.....	4
5.0	MODELING SOFTWARE.....	4
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
13.0	PERMIT REQUIREMENTS	8
14.0	CONCLUSIONS.....	9
15.0	ATTACHMENTS	9

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 Trails¹. 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.

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/interior 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® system² 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 redispersed 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

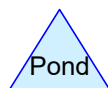
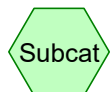
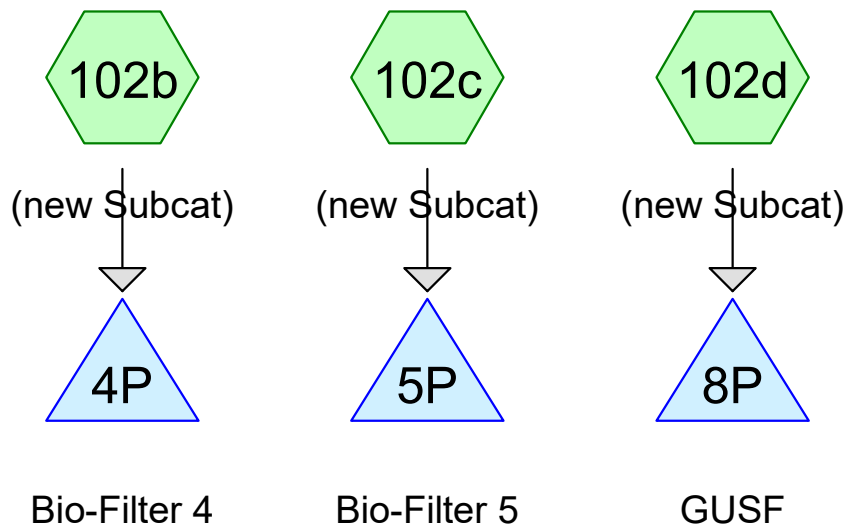
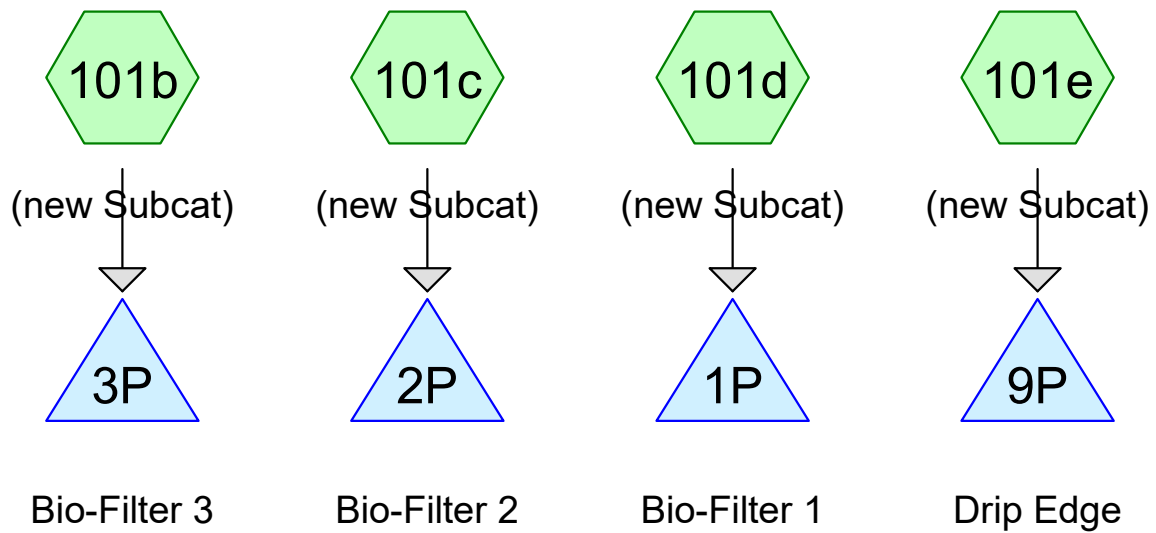
BMP Summary

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



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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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 ' 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 ' 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 ' 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/s²
C: 0.6 Orifice/Grate

ATTACHMENT D
FOCALPOINT® DESIGN WORKSHEET/HYDROCAD REPORT

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: = $((A \times 1.0) + (B \times 0.4)) \times 174$ = 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 ft³
- 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 ☐

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:



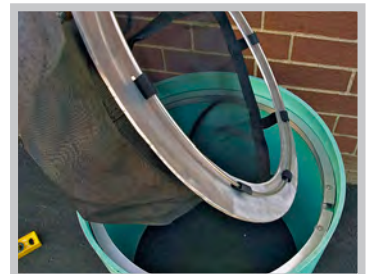
Pretreatment - Rain Guardian Turret



Pretreatment - Rain Guardian Foxhole



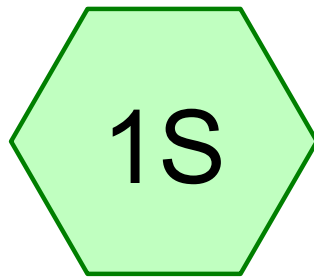
Pretreatment - PreTx



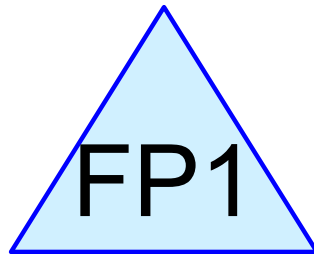
Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

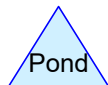
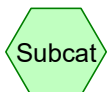
Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com



FP1



FP-1



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

Portland Homeless Services Center FocalPoint Model Type III 24-hr 0.95-in Rainfall=0.95"

Prepared by {enter your company name here}

Printed 8/10/2021

HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Page 3

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

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
I.	INTRODUCTION	1
	A. Guidelines Overview.....	1
	B. Responsible Party	2
II.	PROJECT OVERVIEW	2
III.	STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS.....	3
	A. Stormwater Inlets.....	3
	B. Tributary Drainage System.....	3
	C. Grassed Underdrained Soil Filter	4
	D. Bio-Retention Filters.....	6
	E. Level Lip Spreaders	8
	F. Proprietary Treatment Devices (FocalPoint®).....	8
	G. Outlet Control Devices	9
	H. Litter	9
IV.	PROGRAM ADMINISTRATION.....	9
	A. General.....	9
	B. Record Keeping.....	10
	C. Contract Services	10

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 be 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 lien 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



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



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,

A handwritten signature in blue ink, appearing to read 'Celina M. Daniell'.

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

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 Michniewicz
Sean Duffy
Ryan Haskell
T Stackhouse
207.725.0224
Lisa White



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

A handwritten signature in black ink that reads 'Celina M. Daniell'.

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\GAbutters\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
YAZDANPANA	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



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 are 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 shelter guests.*

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

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, MEIP Applications\Local\major site plan\LOR\LOR#1\LOR1_grooms_homeless center_08.12.2021.docx

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 stayers². 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 day space- 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 day space 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

Overview of the Process to Replace the Oxford Street Shelter



During site plan approval, the Planning Board will ensure that the plan for the new HSC complies with the ordinance requirements we passed in 2017. Emergency Shelters must have:

- adequate space for security searches and other assessments
- a centralized operations office with sightlines to sleeping areas
- a management plan with: 1) management responsibilities; 2) a process for addressing neighborhood concerns; 3) staffing; 4) access restrictions; 5) on-site surveillance; 6) safety measures; 7) controls for resident behavior and noise levels; 8) monitoring reports
- adequate access to and from METRO service as well as strategies to help residents utilize transit
- on-site services such as case management, life skills training, counseling, employment and educational services, and housing assistance.
- suitable laundry, kitchen, pantry, bicycle storage, and secure storage facilities for guests
- an outdoor area for guests that is screened for privacy


**We
are here.**

The Riverside location is in the IL Zone. Examples of other allowable uses in this zone include bakeries, breweries, bottling plants, pharmaceuticals, machine shops, food packaging, indoor amusement and recreation centers, plant and tree nurseries, lumber yards, repair services (including all types of automotive repair), day care facilities, dairies, dog training services, intermodal transportation facilities, and utility substations.



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 vpd¹
- Sight lines in each direction at driveway exceed 500 feet²
- 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)	ITE⁶ 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.

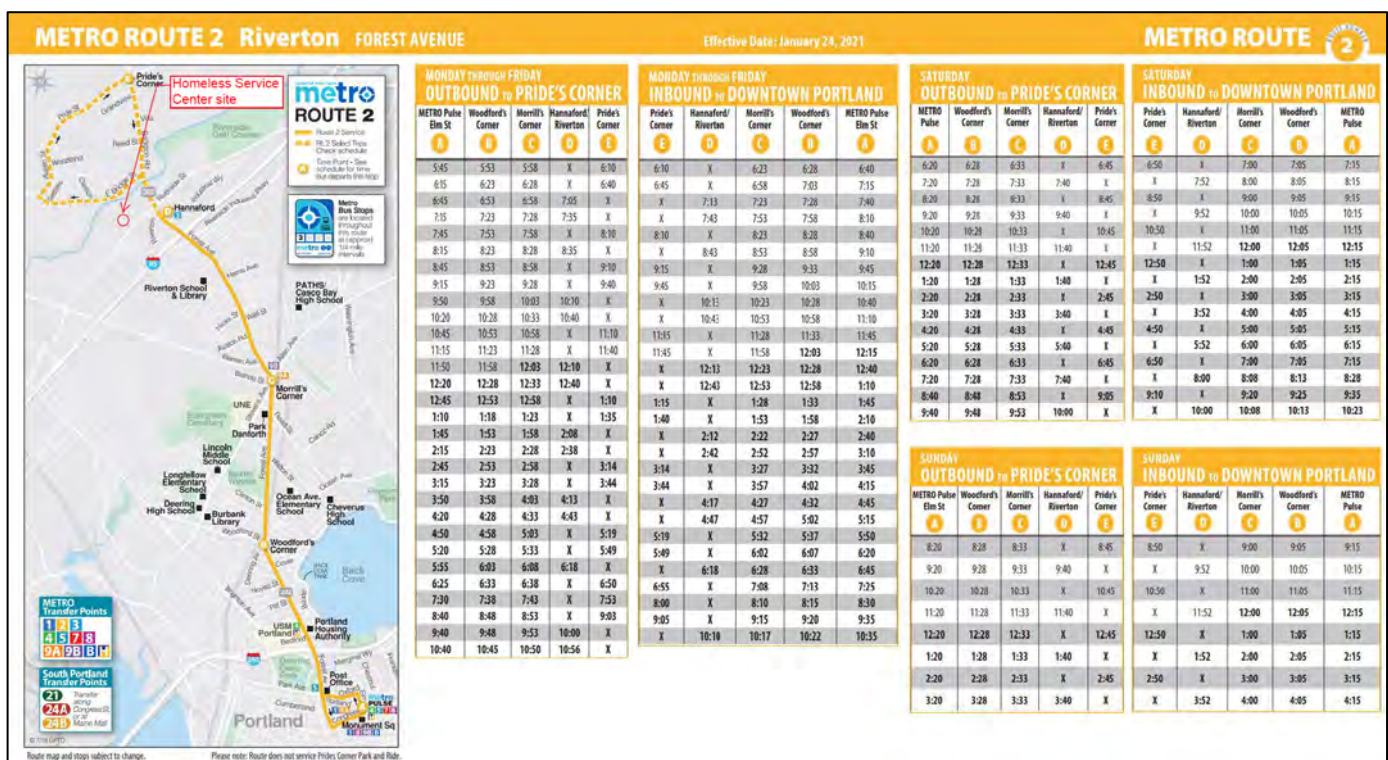


FIGURE 1 – METRO ROUTE 2 MAP AND SCHEDULE

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.

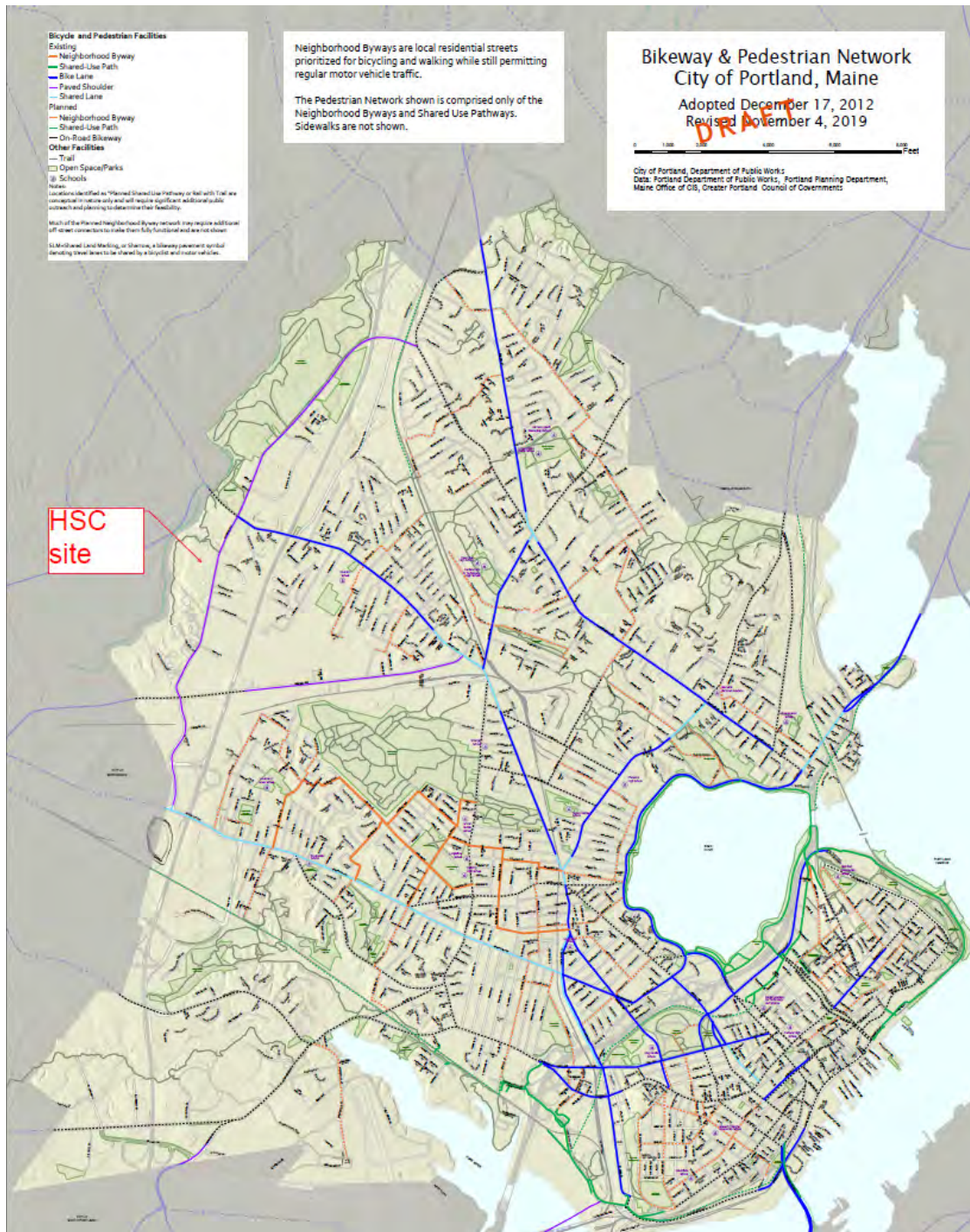


FIGURE 2 – BIKEWAY & PEDESTRIAN NETWORK MAP (CITY DPW)

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
Guest Name Printed

Date

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.

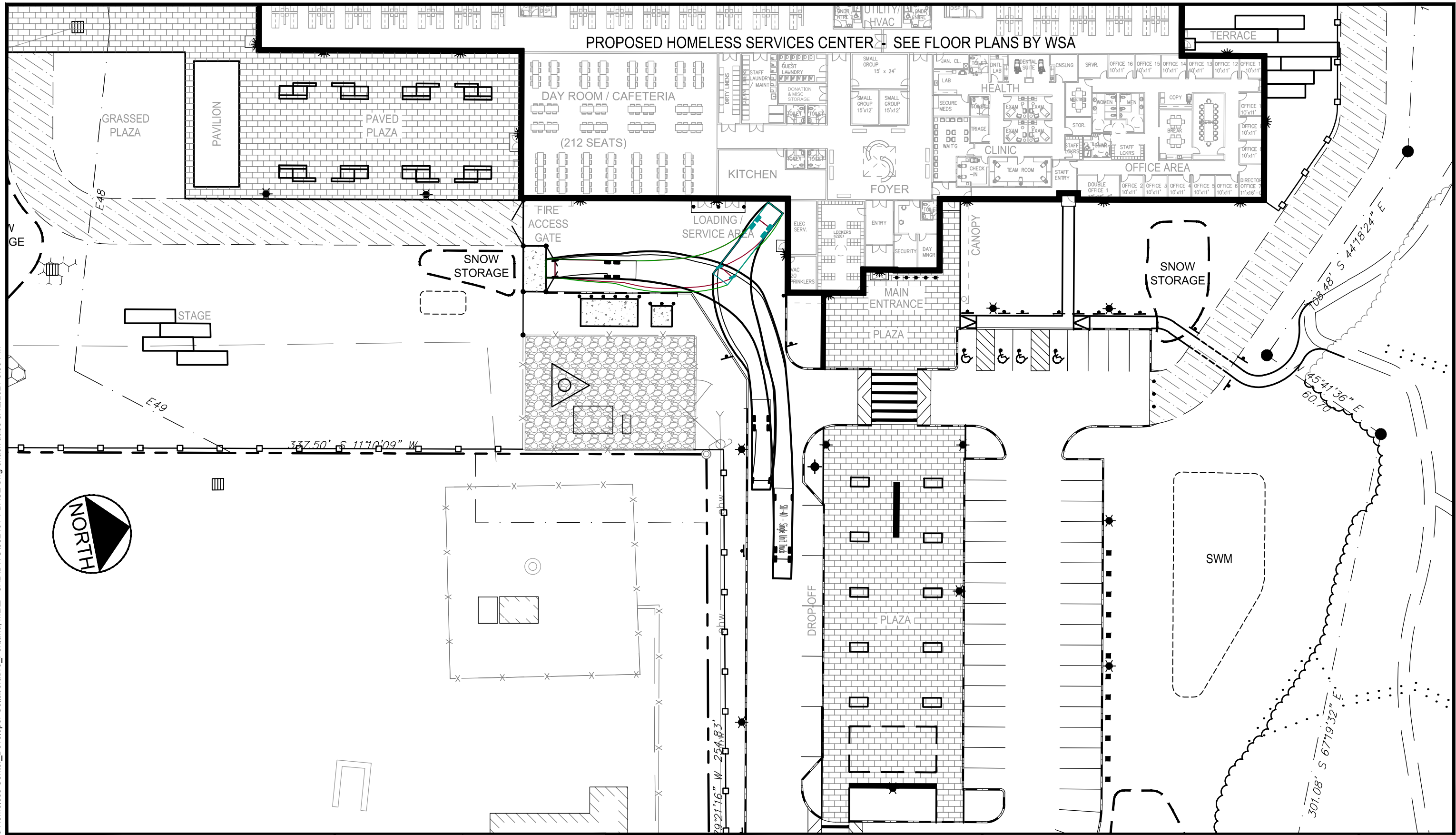
Staff conduct half hour perimeter checks on all of our 24-hour shifts, these will include the perimeter of our property and neighboring areas.

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

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-PBASE.dwg chuck.dube 8/12/2021 3:06 PM





**GORRILL
PALMER**

www.gorrillpalmer.com
207.772.2515

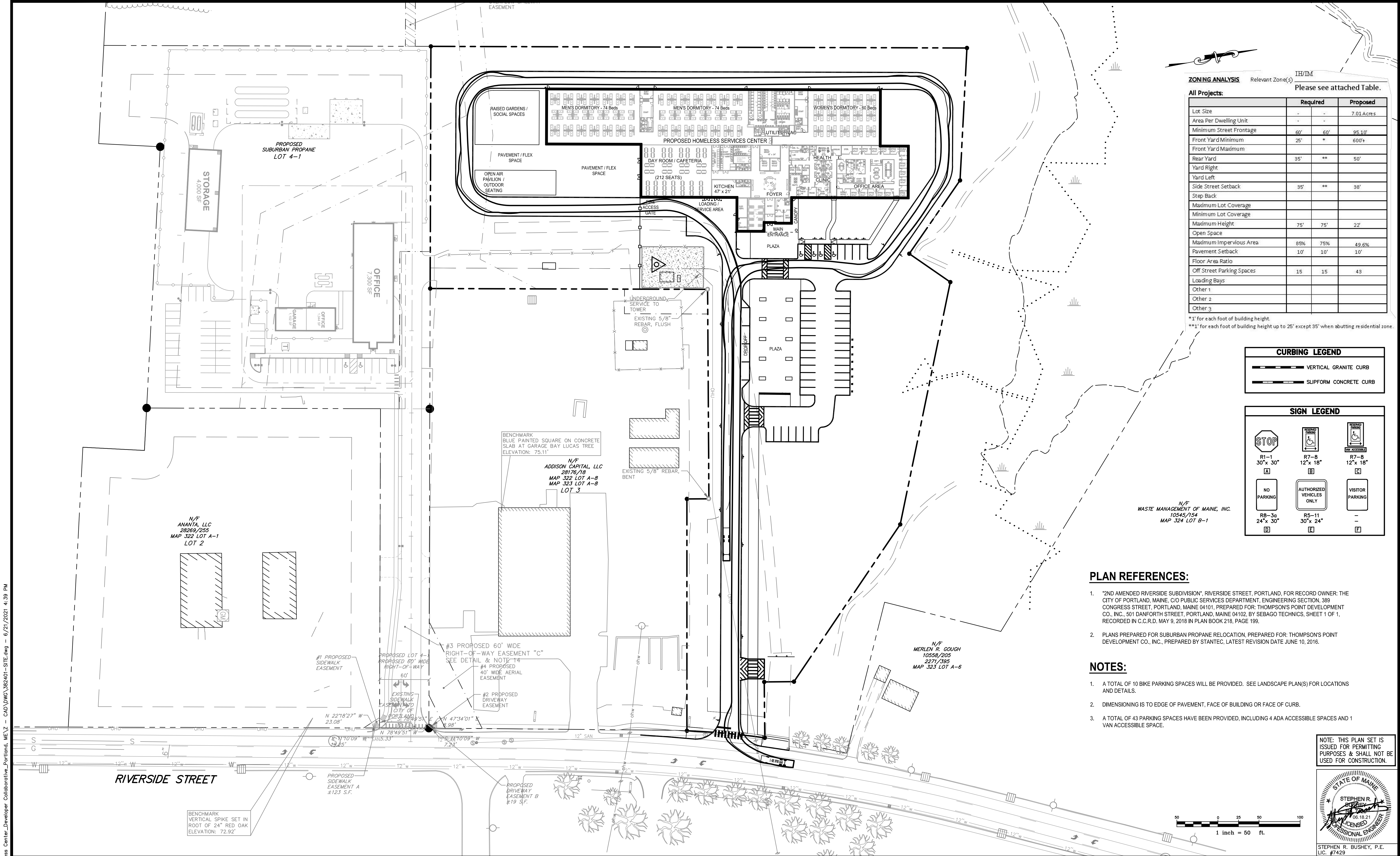
DRAWN:	CDD	DATE:	AUG. 11, 2021
DESIGNED:	SRB	SCALE:	1" = 40'
CHECKED:	SRB	JOB NO.	3824.01
FILE NAME:	382401-XBASE		

HOMELESS SERVICES CENTER
654 RIVERSIDE STREET, PORTLAND, MAINE

GARBAGE TRUCK ACCESS /
TURNING MOVEMENTS

FIGURE
1

U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-SITE.dwg - 6/21/2021 4:39 PM



ZONING ANALYSIS

Relevant Zone(s)

IH/IM

Please see attached Table.

All Projects:

	Required	Proposed
Lot Size	-	-
Area Per Dwelling Unit	-	-
Minimum Street Frontage	60'	60'
Front Yard Minimum	25'	*
Front Yard Maximum		
Rear Yard	35'	**
Yard Right		
Yard Left		
Side Street Setback	35'	**
Step Back		
Maximum Lot Coverage		
Minimum Lot Coverage		
Maximum Height	75'	75'
Open Space		
Maximum Impervious Area	85%	75%
Pavement Setback	10'	10'
Floor Area Ratio		
Off Street Parking Spaces	15	15
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

SUPPFORM CONCRETE CURB

SIGN LEGEND

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

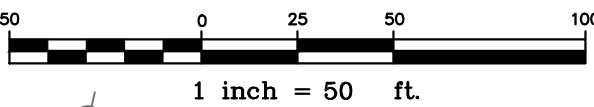
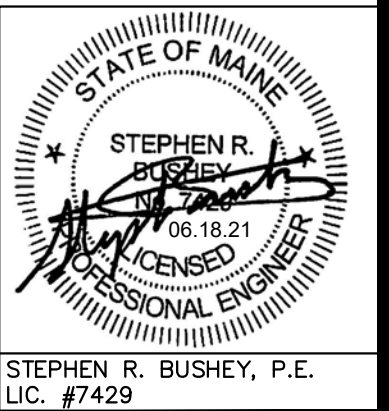
PLAN REFERENCES:

- "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.
- PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

- A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
- DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
- 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.



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

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 Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		

Gorrell Palmer		Relationships. Responsiveness. Results. www.gorrellpalmer.com 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.	-
-------------	---

ATTACHMENT C



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 afford 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:

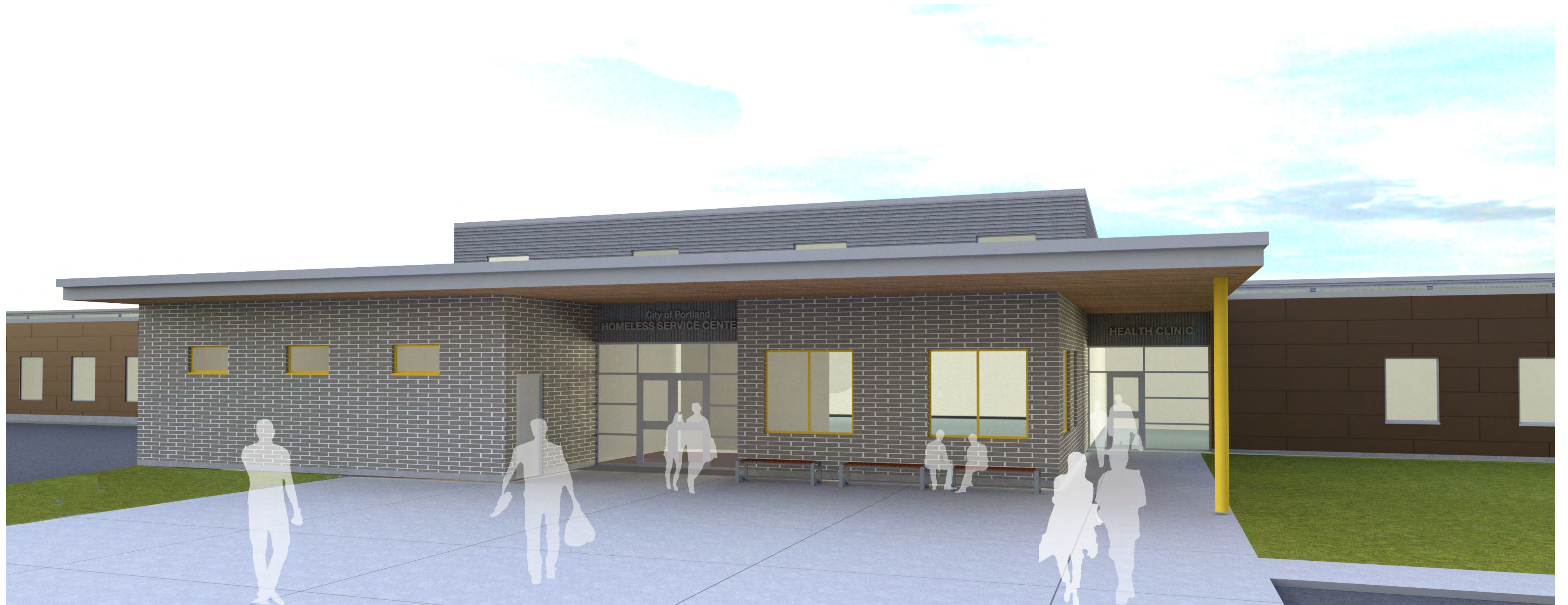
The ultimate goal of providing services for those without shelter is to become so successful at creating housing solutions for all that the shelter is no longer needed. The Planning Board asked if the building's design would allow for re-use for a different purpose in the future.

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



Entrance Plaza



Cafeteria / Dayroom



East Facade



South Facade



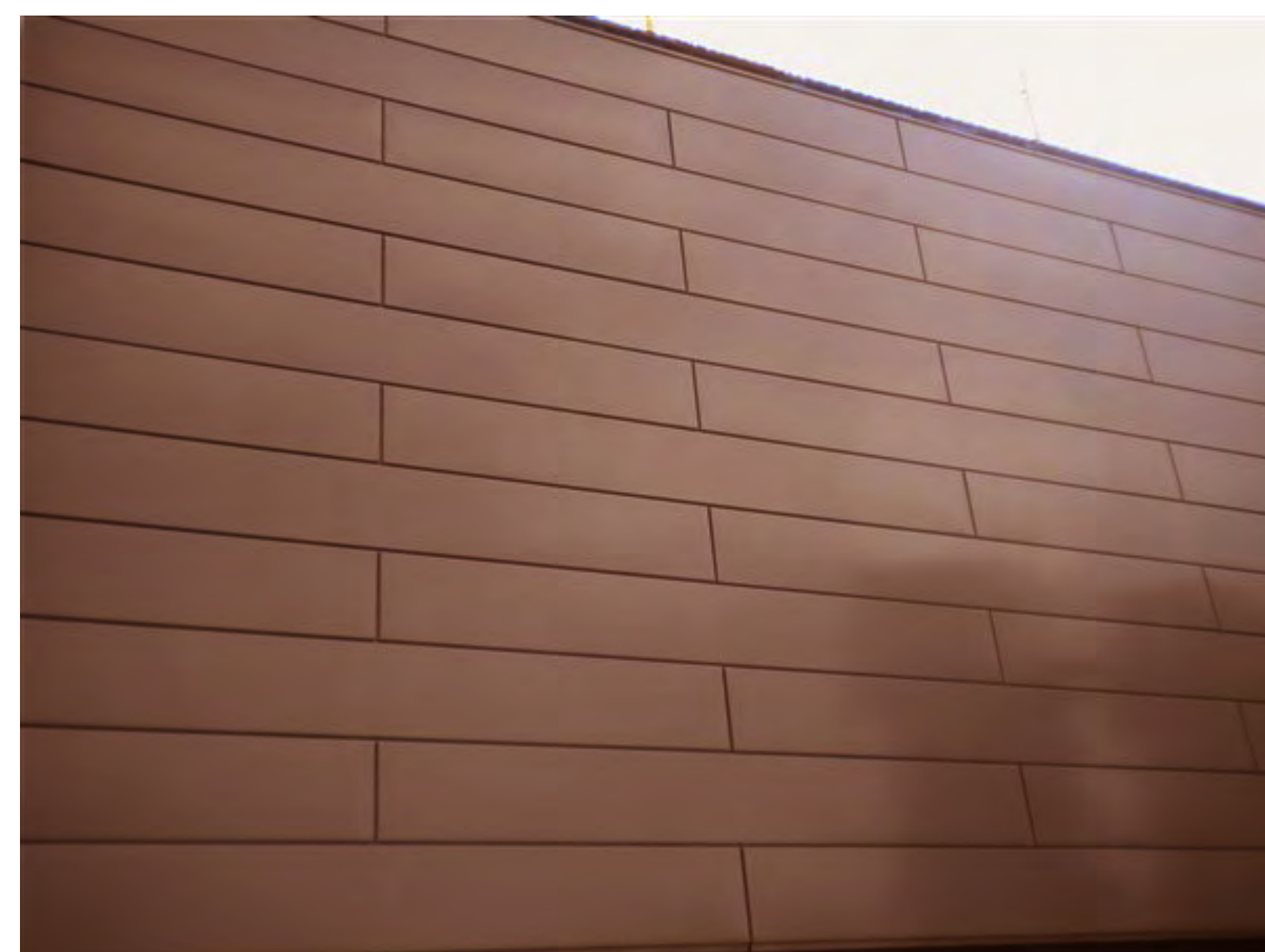
North Facade



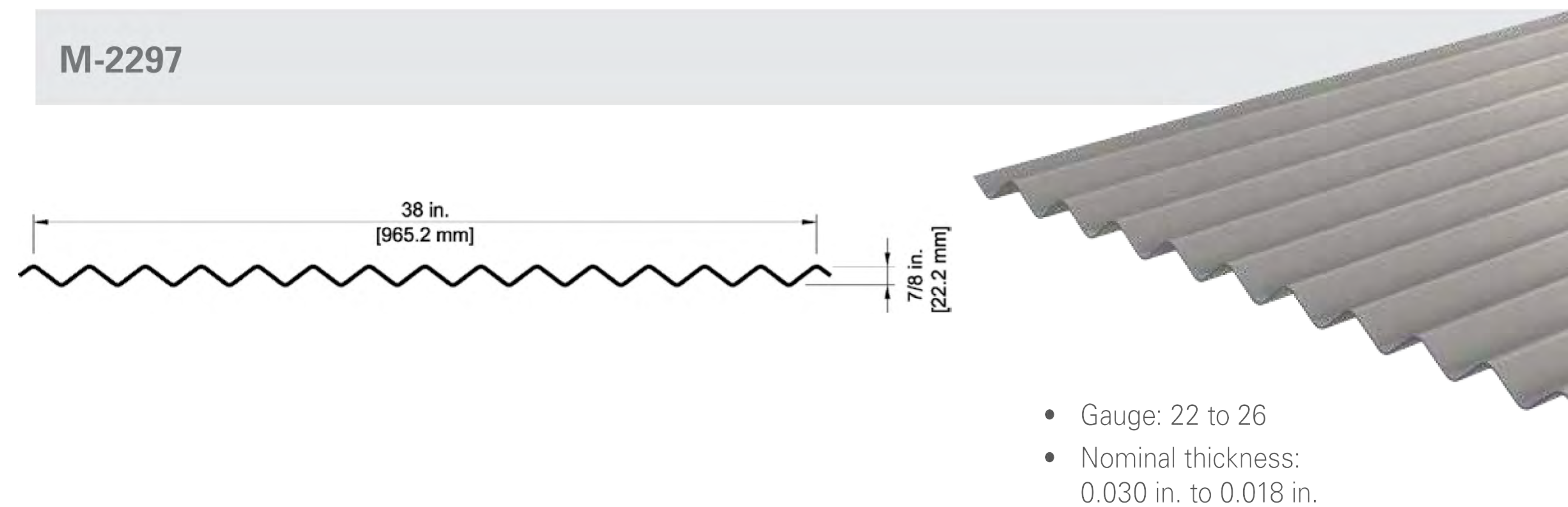
West Facade



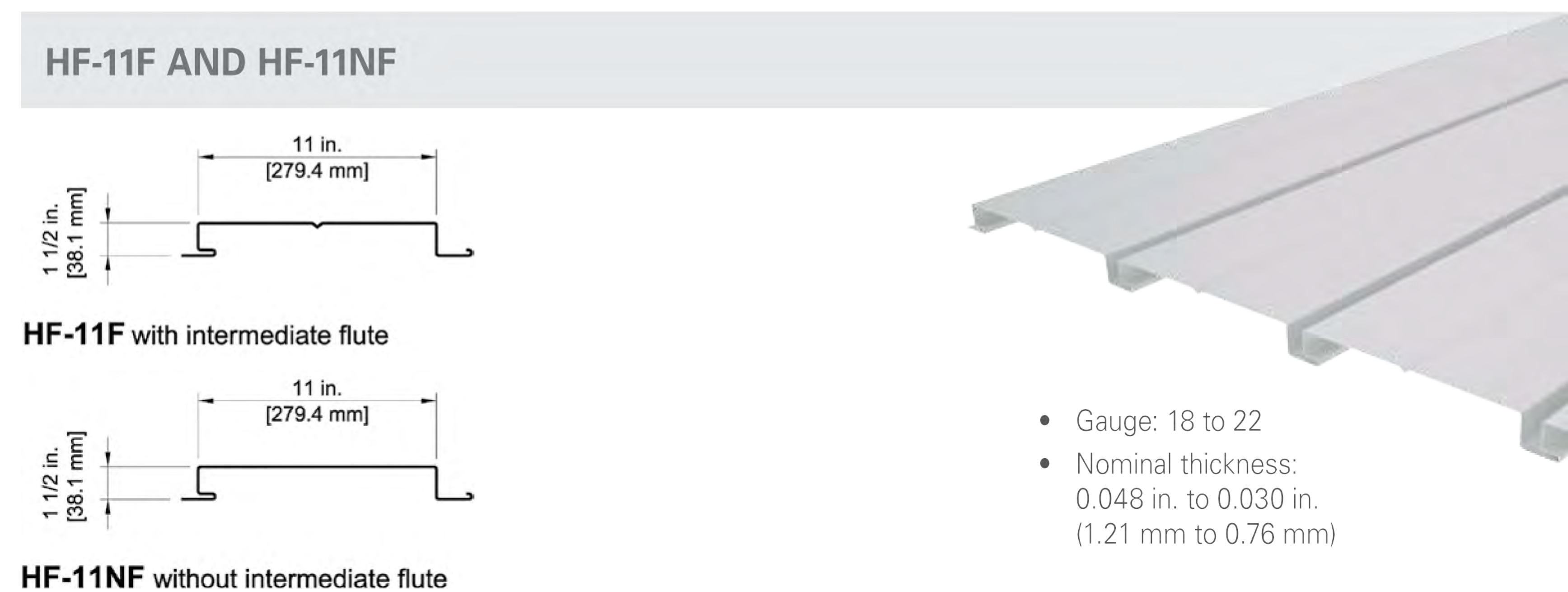
BRICK - Front Entrance Area



ALLUMINUM COMPOSITE PANELS - Office/Clinic Wing & Cafeteria



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

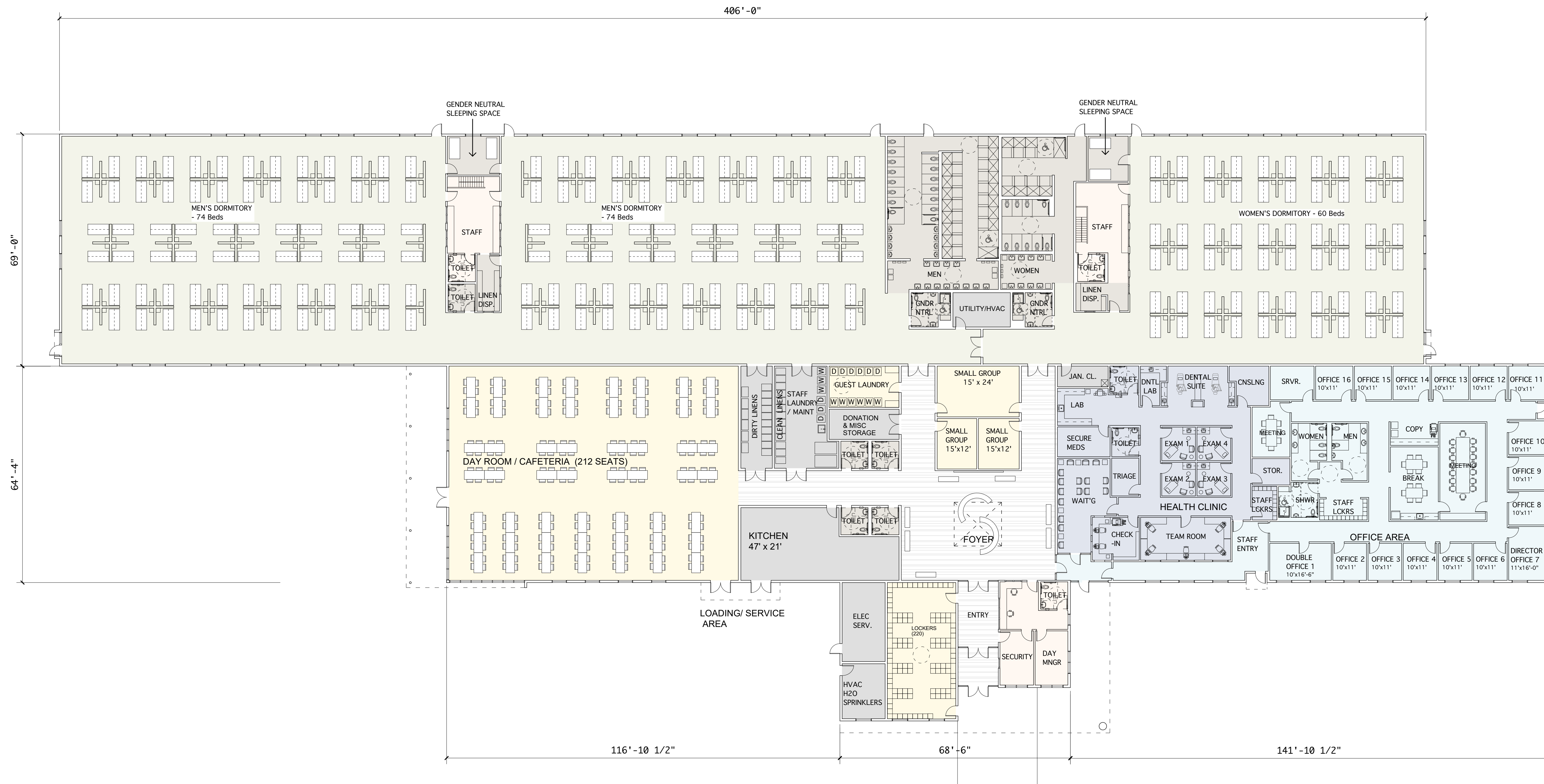


VERTICAL METAL SIDING - Lower portion of Dormitories. (Light Gray)



Winton Scott Architects

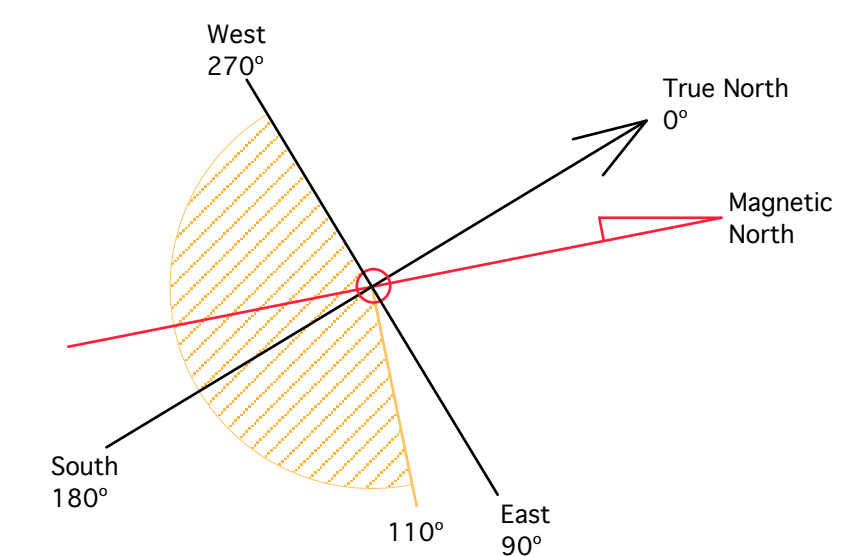
5 milk street, portland, maine 04101
• 207.774.4811 • wintonscott.com

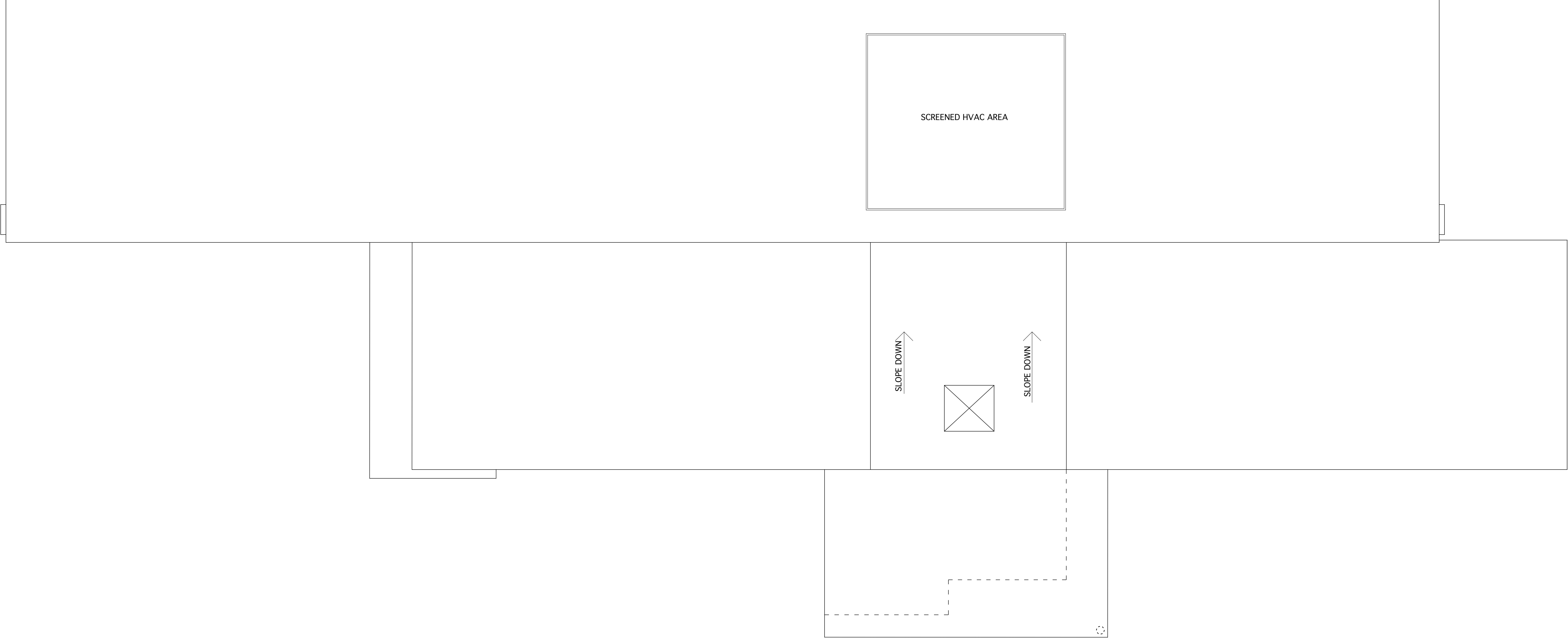


FIRST FLOOR CONCEPT PLAN

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

51,690 S.F.





ROOF PLAN

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



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**



TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
1.0	INTRODUCTION	1
2.0	EXISTING SITE CONDITIONS	1
3.0	PROPOSED PROJECT	3
4.0	REFERENCES.....	4
5.0	MODELING SOFTWARE.....	4
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
13.0	PERMIT REQUIREMENTS	8
14.0	CONCLUSIONS.....	9
15.0	ATTACHMENTS	9

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 Trails¹. 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.

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® system² 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 redispersed 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

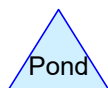
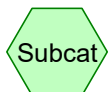
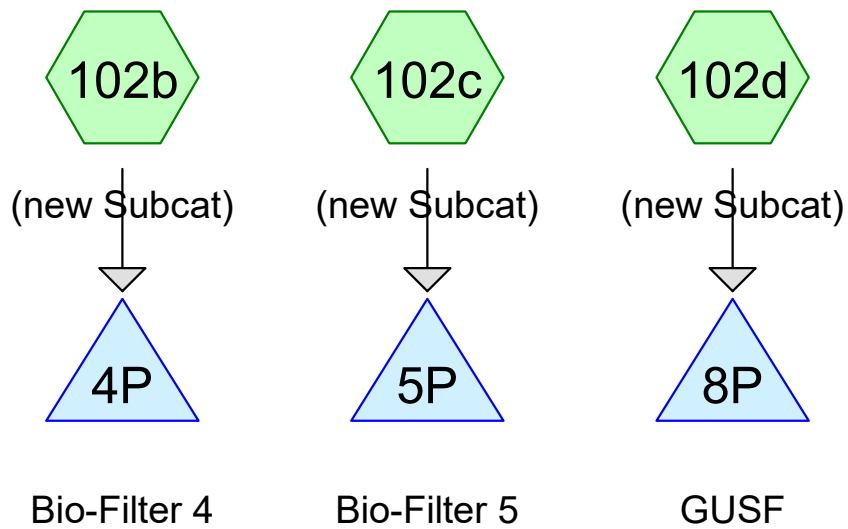
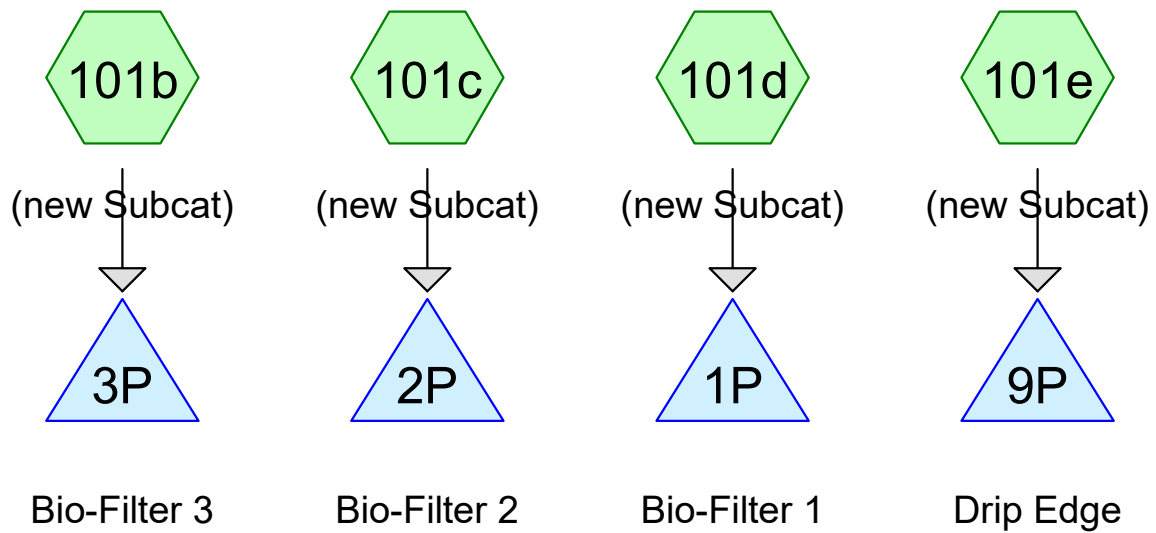
BMP Summary

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



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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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: $T_c < 2dt$ 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 ' 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 ' 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 ' 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/s²
C: 0.6 Orifice/Grate

ATTACHMENT D
FOCALPOINT® DESIGN WORKSHEET/HYDROCAD REPORT

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: = **$((A \times 1.0) + (B \times 0.4)) \times 174$** = 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 ft³
- 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 ☐

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:



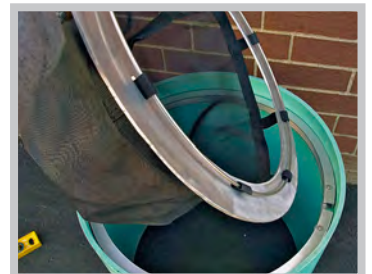
Pretreatment - Rain Guardian Turret



Pretreatment - Rain Guardian Foxhole



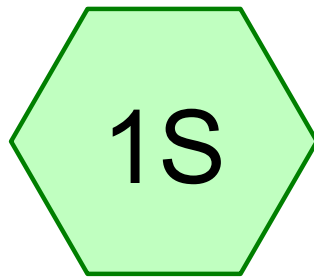
Pretreatment - PreTx



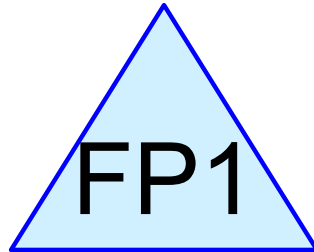
Bypass protection - Domed overflow with filter insert

For additional information please visit: www.acfenvironmental.com

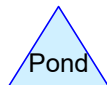
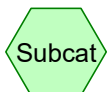
Contact Rob Woodman - Senior Stormwater Engineer
Cell: 207.272.4431 | Email: rwoodman@acfenv.com



FP1



FP-1



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

Portland Homeless Services Center FocalPoint Model Type III 24-hr 0.95-in Rainfall=0.95"

Prepared by {enter your company name here}

Printed 8/10/2021

HydroCAD® 10.10-5a s/n 11828 © 2020 HydroCAD Software Solutions LLC

Page 3

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

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
I.	INTRODUCTION	1
	A. Guidelines Overview.....	1
	B. Responsible Party	2
II.	PROJECT OVERVIEW	2
III.	STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS.....	3
	A. Stormwater Inlets.....	3
	B. Tributary Drainage System.....	3
	C. Grassed Underdrained Soil Filter	4
	D. Bio-Retention Filters.....	6
	E. Level Lip Spreaders	8
	F. Proprietary Treatment Devices (FocalPoint®).....	8
	G. Outlet Control Devices	9
	H. Litter	9
IV.	PROGRAM ADMINISTRATION.....	9
	A. General.....	9
	B. Record Keeping.....	10
	C. Contract Services	10

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 be 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 lien 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 lien if 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



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

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\GAButters\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



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.

Ms. Alison Sirois
July 23, 2021
Page 5



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

u:\3824.01_portland homeless center_developer collaborative_portland, melp applications\stateltr_sirois_slda_07.23.2021.docx

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 Plan¹ for the project area.

The City has engaged DC Predevelopment LLC in response to RFP #21041². 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 Trails³. 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 of 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:
 - o 4 exam rooms
 - o Reception and waiting area
 - o Patient/staff bathrooms
 - o Lab
 - o Storage
 - o 2 offices
 - o 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
 - o Cover Letter/Project Description/Operational Key Plan/Operations Management Plan
 - o Major Site Plan Application Checklist/Conditional Use Application
 - o Right, Title and Interest
 - o Zoning Assessment
 - o Existing and/or Proposed Easements (please see Survey Plan)
 - o Waiver Request and Waiver Table
 - o Financial Capacity
 - o Technical Capability
- Transportation
 - o Transportation Narrative
- Environmental and Landscape Features & Stormwater
 - o Narrative to Address Standards
- Public Infrastructure and Safety
 - o Narrative to Address Standards
- Site Design
 - o 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

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, MEIP Applications\Local\major site plan\app_docs\1_ltr_grimando_major site plan_06.18.2021.docx



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-Site²

- 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 Development³

- 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
Guest Name Printed

Date

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.

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

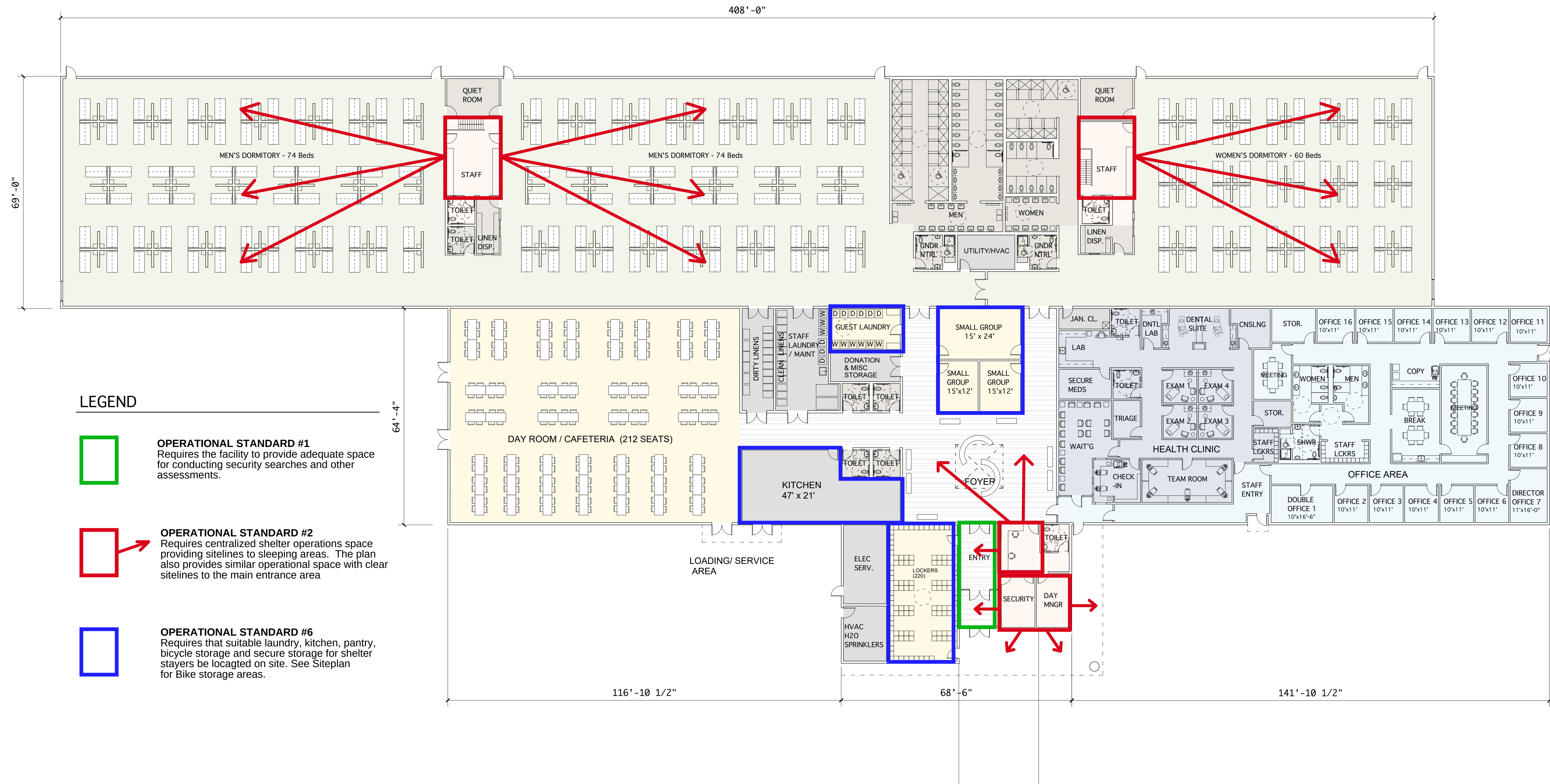
BUILDING CONCEPT SET

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

OPERATIONAL STANDARDS KEY PLAN

A1.2

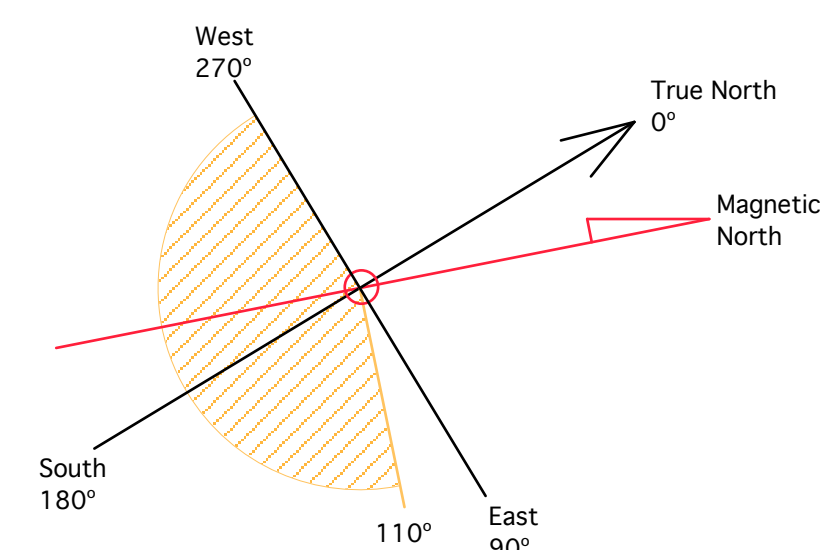
JUNE 14, 2021



OPERATIONAL STANDARDS KEY PLAN

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

51,690 S.F.



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

☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
☒	NA	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	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
☒	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
☐	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	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

☒	N/A	Project Description Cover letter with detailed project description
☒	N/A	Completed Checklist – Conditional Use (this document)
☒	N/A	Evidence of Right, Title and Interest Deeds, leases, or purchase and sales agreements

CONDITIONAL USE STANDARDS AND CRITERIA

☒	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.
☒	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.
☒	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.
☒	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.

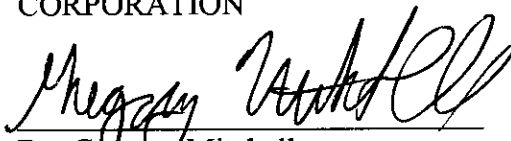
QUITCLAIM DEED WITH COVENANT

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

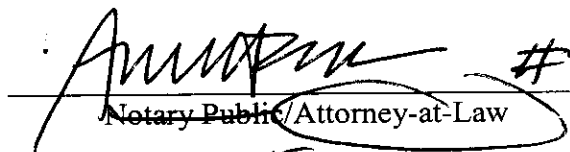
 State of Maine
 Cumberland, ss.

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,

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

 #7990
 Notary Public/Attorney-at-Law
Ann M. Freeman
 Print or Type Name

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.
<i>Technical Manual Section 5.III – Chapter 500 Flooding standard</i>	<i>MeDEP Chapter 500 provisions related to Stormwater management</i>	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.
<i>Section 14.6.1.E Transportation Standards requiring a Transportation Demand Management Plan (TDM)</i>	<i>All Commercial, Institutional, or mixed use development of 50,000 SF or more total floor area shall design and implement a TDM plan</i>	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.



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:

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



TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
1.0	Introduction	1
2.0	Existing Site Conditions	2
3.0	Proposed Project.....	4
4.0	References	4
5.0	Modeling Software.....	4
6.0	Presentation of Analysis.....	5
7.0	Assumptions.....	5
8.0	Stormwater Management Objectives	5
9.0	Stormwater Management Quality Summary.....	5
10.0	Chapter 500 Treatment Percent Compliance.....	7
11.0	Erosion Control	7
12.0	Operations and Maintenance.....	7
13.0	Permit Requirements.....	7

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 Trails¹. 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)

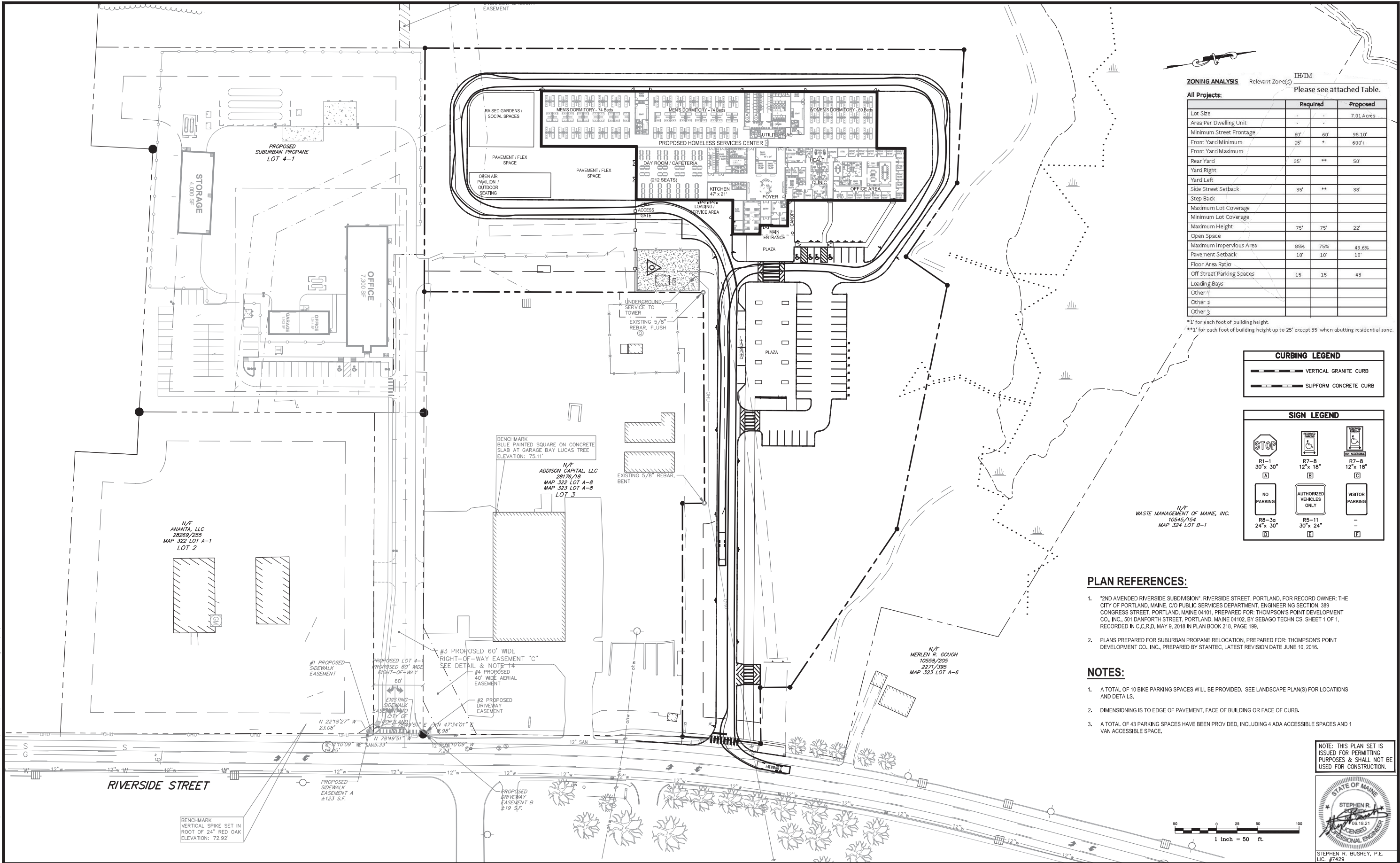
- *Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3)*
 - *Emergency vehicle access*
 - *Consistency with public safety standards (Technical Manual, Section 3)*
- a. The site has been designed to promote a safe and inviting visitor experience. 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.

U:\3824.01_Perland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-SITE.dwg - 6/21/2021 4:39 PM



ZONING ANALYSIS Relevant Zone(s) TH/TM
Please see attached Table.

All Projects:	Required	Proposed
Lot Size	-	7.01 Acres
Area Per Dwelling Unit	-	-
Minimum Street Frontage	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'	22'
Open Space	-	-
Maximum Impervious Area	85%	49.6%
Pavement Setback	10'	10'
Floor Area Ratio	-	-
Off Street Parking Spaces	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"	R7-8 12"x 18"	R7-8 12"x 18"
A	B	C
NO PARKING	AUTHORIZED VEHICLES ONLY	VISITOR PARKING
R8-3a 24"x 30"	R5-11 30"x 24"	-
D	E	F

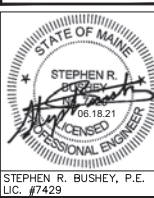
PLAN REFERENCES:

- "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 TECHNIQS, SHEET 1 OF 1, RECORDED IN C.C.R.D. MAY 9, 2018 IN PLAN BOOK 218, PAGE 189.
- PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

- A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
- DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
- 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.



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.		



Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

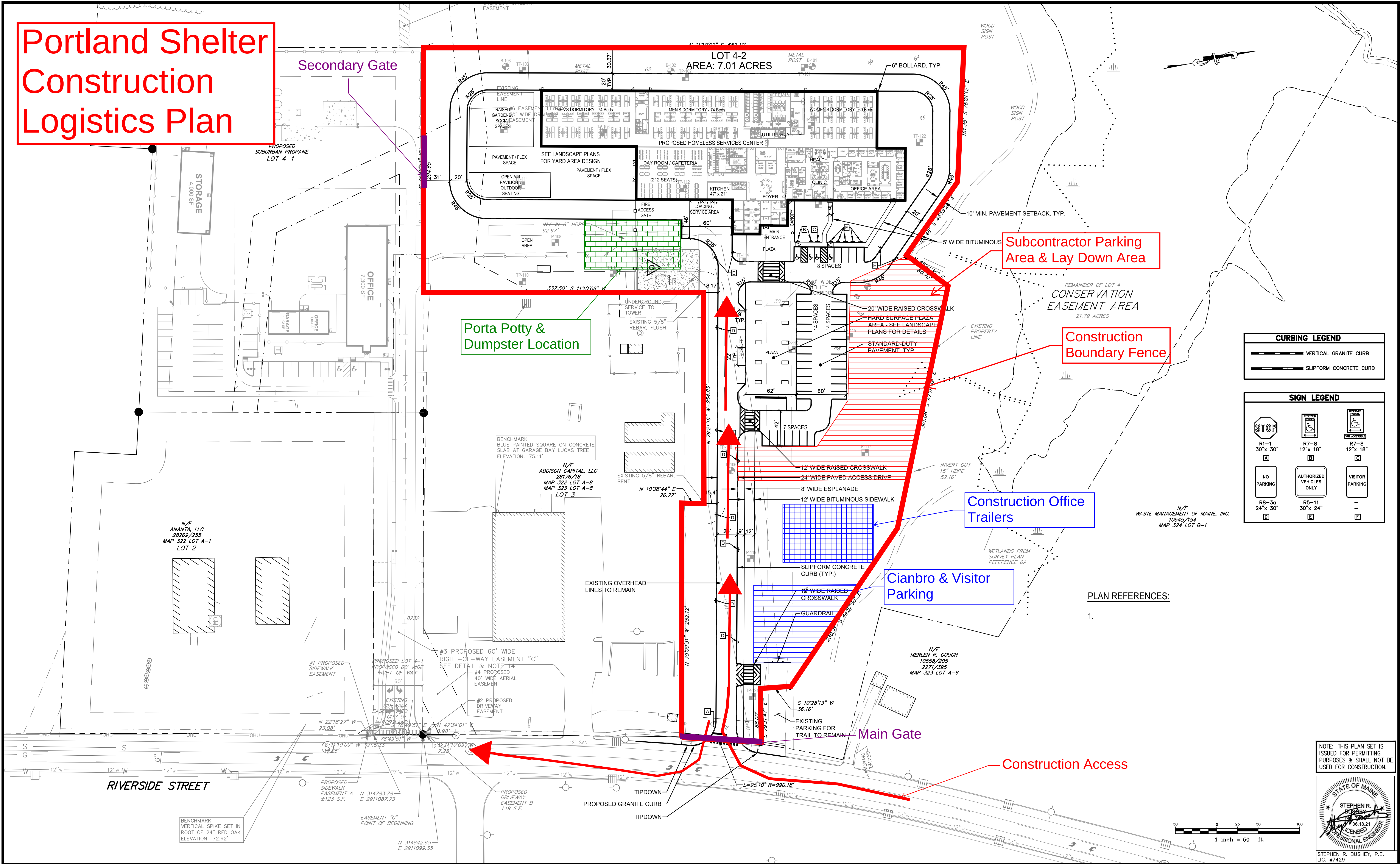
Drawing Name:	SITE LAYOUT PLAN WITH AERIAL FIRE TRUCK ACCESS
Project:	Homeless Services Center 654 Riverside Street, Portland, Maine
Client/Owner:	DC Predevelopment LLC 100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No.	-
-------------	---

CONSTRUCTION MANAGEMENT PLAN

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

Portland Shelter Construction Logistics Plan

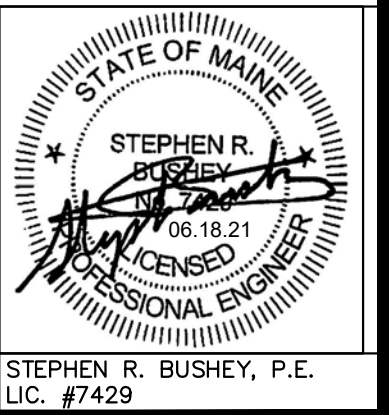


CURBING LEGEND	
	VERTICAL GRANITE CURB
	SLIPFORM CONCRETE CURB

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

PLAN REFERENCES:
1.

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



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 Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		



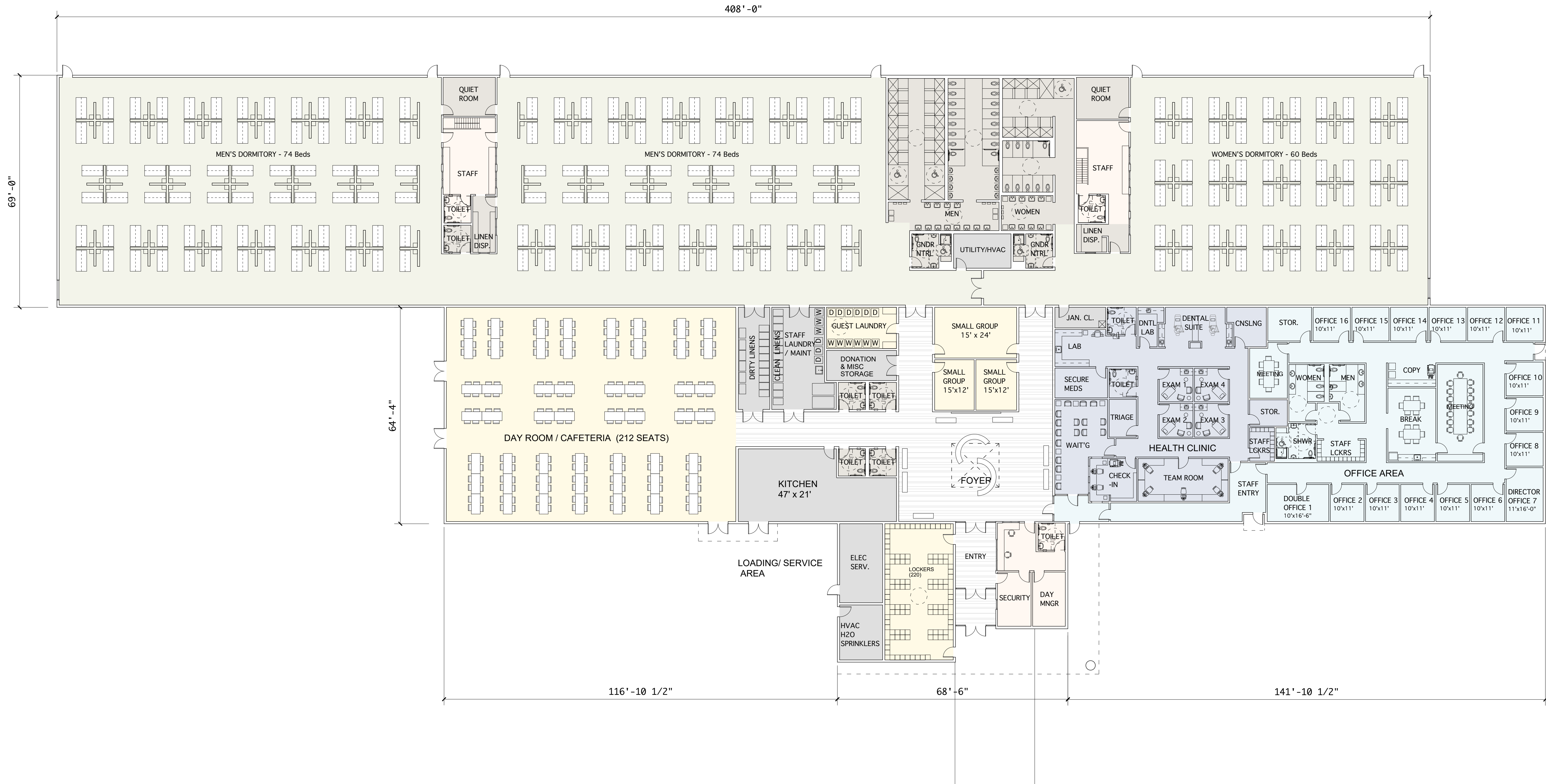
**GORRELL
PALMER**

Relationships. Responsiveness. Results.
www.gorrellpalmer.com
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

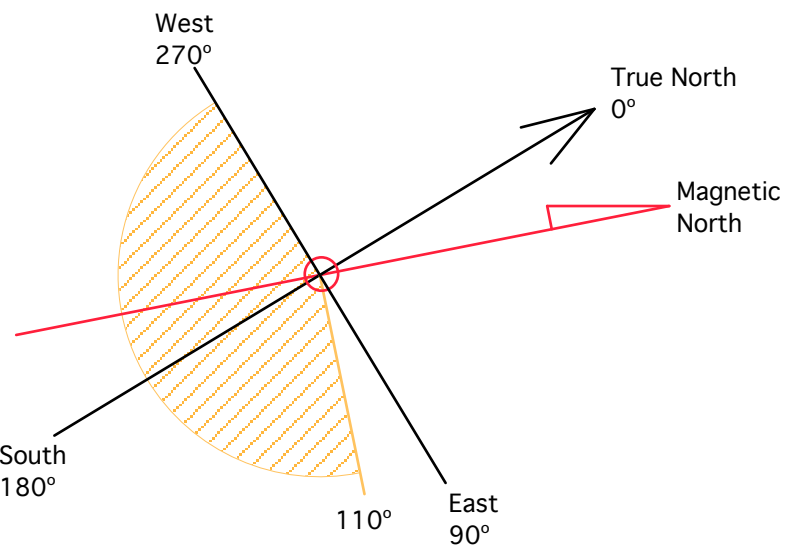
U:\3824.01\Portland Shelter Construction Logistics Plan.dwg - 6/18/2021 11:57 AM



FIRST FLOOR CONCEPT PLAN

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

51,690 S.F.



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

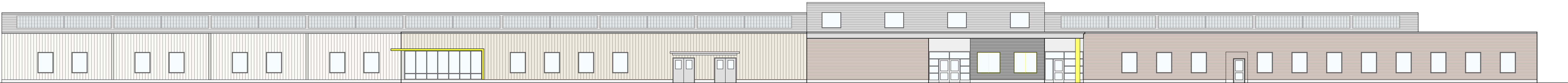
BUILDING CONCEPT SET

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

BUILDING ELEVATIONS

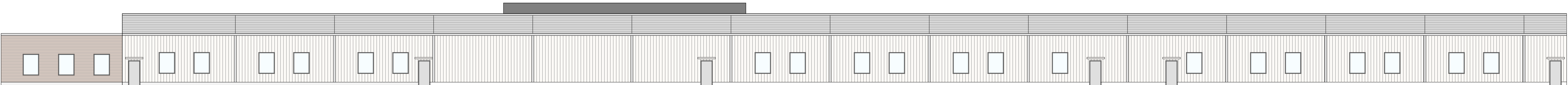
A2.1

JUNE 14, 2021



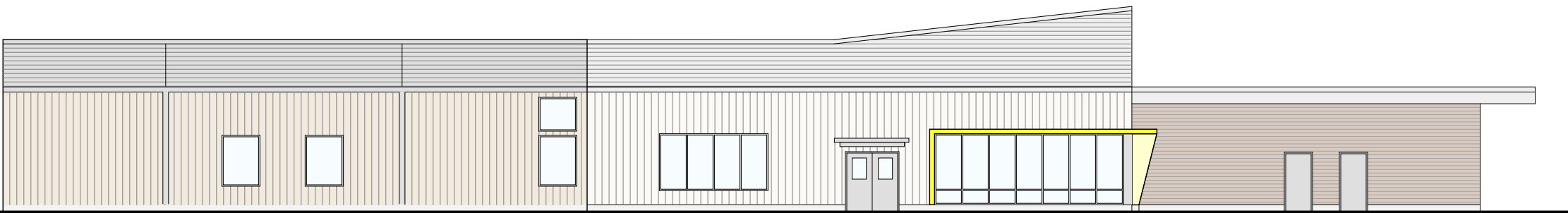
EAST ELEVATION

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"

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

INDEX

C-1.0	COVER SHEET
C-1.1	GENERAL NOTES & LEGEND
C-1.2	2nd AMENDED RIVERSIDE SUBDIVISION (BY SEBAGO TECHNICS, INC.)
*C-2.0	EXISTING CONDITIONS & REMOVALS PLAN
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
C-8.1	SITE DETAILS
C-8.2	STORM DRAIN & UTILITY DETAILS
C-8.3	WATER DETAILS
C-8.4	ELECTRIC & UTILITY DETAILS
C-8.5	EROSION CONTROL DETAILS
C-8.6	EROSION CONTROL NOTES
*C-9.0	ACCESS DRIVE PLAN & PROFILE
*C-10.0	STORM DRAIN PROFILES
*C-10.1	STORM DRAIN PROFILES
*C-11.0	UTILITY PROFILES
*C-11.1	UTILITY PROFILES
L-1	SITE LIGHTING / PHOTOMETRICS PLAN (BY SWANEY LIGHTING ASSOCIATES, INC.)
*W-1	PRE-DEVELOPMENT WATERSHED MAP
*W-2	POST-DEVELOPMENT WATERSHED MAP

*NOT INCLUDED IN THIS SUBMISSION

SITE DEVELOPMENT PLANS

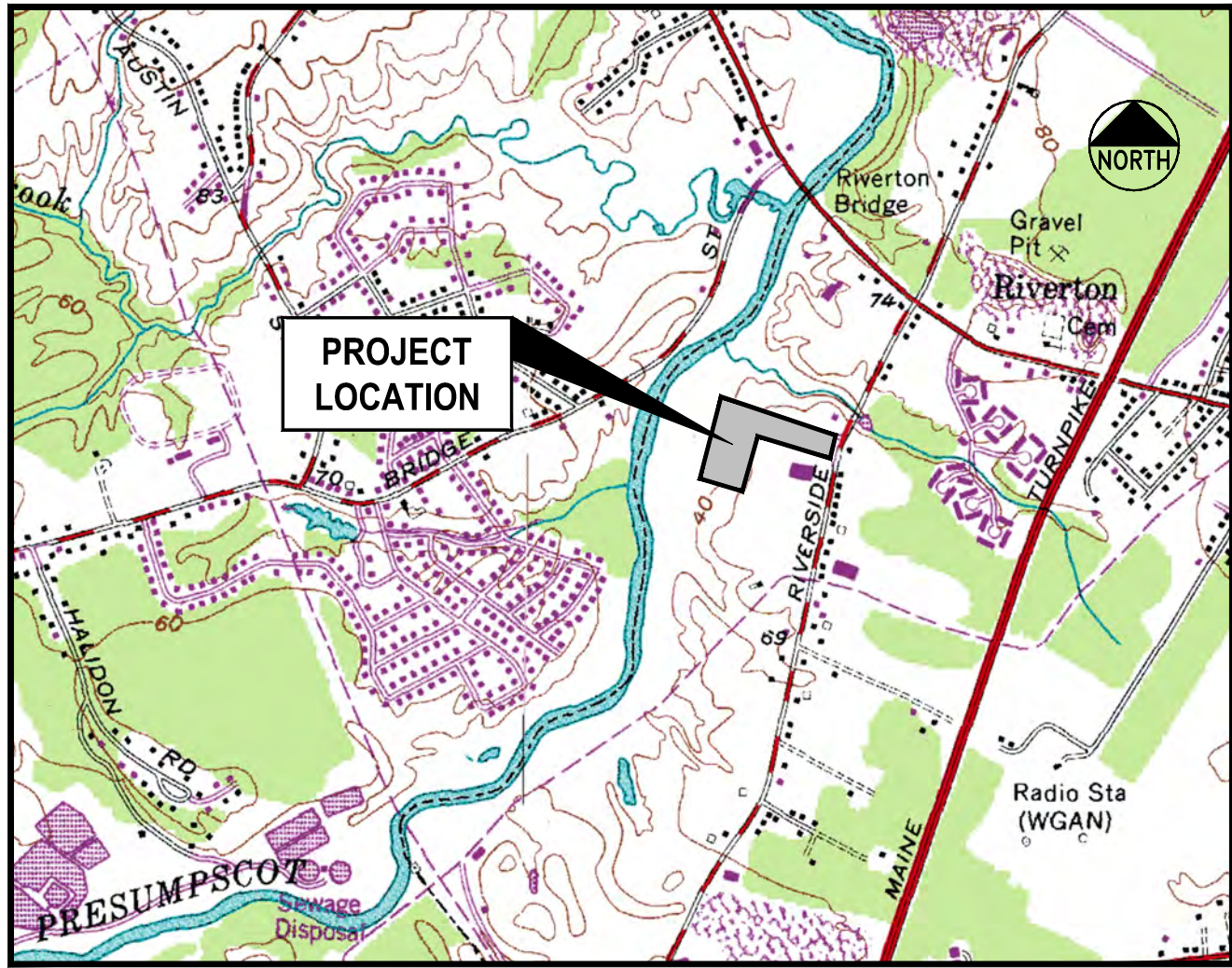
FOR

Homeless Services Center

654 RIVERSIDE STREET, PORTLAND, MAINE

JUNE 2021

PERMIT DOCUMENTS



LOCATION MAP
N.T.S.

CONSULTANT LIST

CIVIL ENGINEER:
Gorrill Palmer Consulting Engineers, Inc.
707 SABLE OAKS DRIVE, SUITE 30
SOUTH PORTLAND, MAINE 04106
207.772.2515
CONTACT: STEPHEN BUSHEY
sbushey@gorrillpalmer.com

ARCHITECT:
Winton Scott Architects
5 MILK STREET
PORTLAND, MAINE 04101
207.774.4811
CONTACT: STEPHEN WEATHERHEAD
wintonscott.com

SURVEYOR (TOPOGRAPHY AND BOUNDARY):
Sebago Technics
75 JOHN ROBERTS ROAD, SUITE 4A
SOUTH PORTLAND, MAINE 04106
888.976.1123
CONTACT:

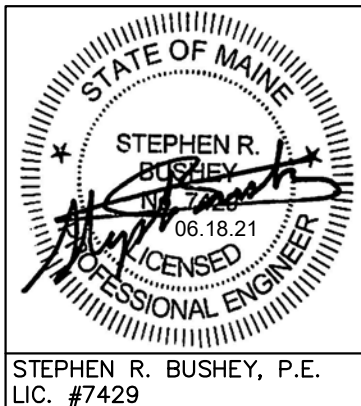
GEOTECHNICAL ENGINEER:
S. W. Cole Engineering, Inc.
286 PORTLAND ROAD
GRAY, MAINE 04039
207.657.2866
CONTACT: TIM BOYCE, P.E.

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.



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:

LOCAL

MAJOR SITE PLAN APPROVAL:

GOVERNING BODY:

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103
207.874.8608
CONTACT: KEVIN KRAFT

STATUS/DATE ISSUED:

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.

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-COVER.dwg - 6/21/2021 3:50 PM

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		
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.		



GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
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

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 EXCAVATING 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 THROUGHOUT THE LIFE OF THE PROJECT.

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.

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:

<u>LOCATION</u>	<u>MINIMUM COMPACTION</u>
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.

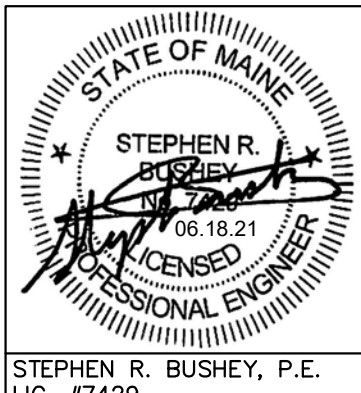
1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE SITE WORK CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. 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.

1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSEYMEN, 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.

- 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 CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991"

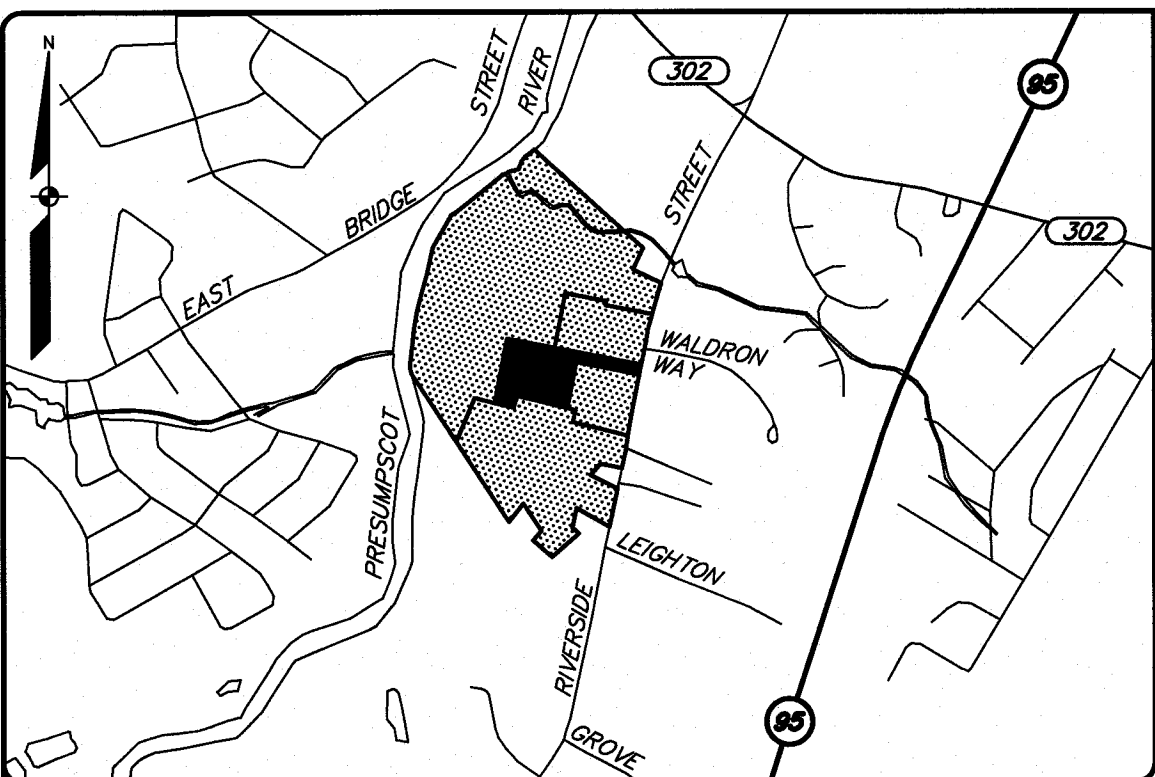
<u>EXISTING</u>	<u>LEGEND</u>	<u>PROPOSED</u>
	ZONING LINE	
	EXISTING STRUCTURE	
	EDGE OF TRAVEL WAY, PAVEMENT, ROADS, DRIVES	
	CURBING	
	PROPERTY LINE	
	EASEMENT LINE	
	OVERHEAD ELECTRIC LINES / OVERHEAD WIRES	
	UNDERGROUND ELECTRIC LINE	
	UNDERGROUND TELEPHONE LINE	
	WATER LINE	
	WATER GATE VALVE	
	STORM DRAIN LINE	
	SANITARY SEWER LINE	
	ROADWAY PAVEMENT STRIPING	
	GAS	
	FENCE	
	EXISTING CONTOUR LINE	
	EXISTING WETLANDS	
	UTILITY POLE	
	SIGN	
	LIGHT POLE	
	CATCH BASIN	
	SEWER MANHOLE	
	ELECTRICAL/COMMUNICATIONS VAULT	
	ELECTRICAL/COMMUNICATIONS PULL BOX	
	HYDRANT	
	TREES, LANDSCAPING	
	TREELINE / EDGE OF BRUSH	
	TELEPHONE MANHOLE	
	ELECTRICAL MANHOLE	
	TEST BORING	
	WETLANDS	

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



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

[illegible]



LOCATION MAP

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 2008 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 78°01'12" W	122.53'

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
- DEED CALL
- BENCHMARK
- BUILDING
- EDGE PAVEMENT
- EDGE CONCRETE
- EDGE GRAVEL
- EDGE OF WATER
- TREELINE
- CONTOURS
- X120.00
- SPOT GRADE
- CHAIN LINK FENCE
- GAS
- WATER
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- SANITARY SEWER
- SANITARY MANHOLE
- STORM DRAIN
- DECIDUOUS TREE
- CATCH BASIN
- OVERHEAD UTILITY
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- FLOODPLAIN
- ZONE LINE
- ZONE LINE ON PL
- BORING
- EDGE WETLAND
- WETLANDS
- CURB LINE
- SHEET METAL FENCE
- GUARD RAIL
- CONCRETE BLOCK ENCLOSURE
- SIGN
- GAS
- GAS GATE VALVE
- GAS METER
- TRANSFORMER PAD
- ELECTRICAL MANHOLE
- RIPRAP
- 5/8" REBAR W/CP TO BE SET
- STRUCTURE NUMBER
- GRADE STAKE SET
- 3.5" DIAMETER PLANTED

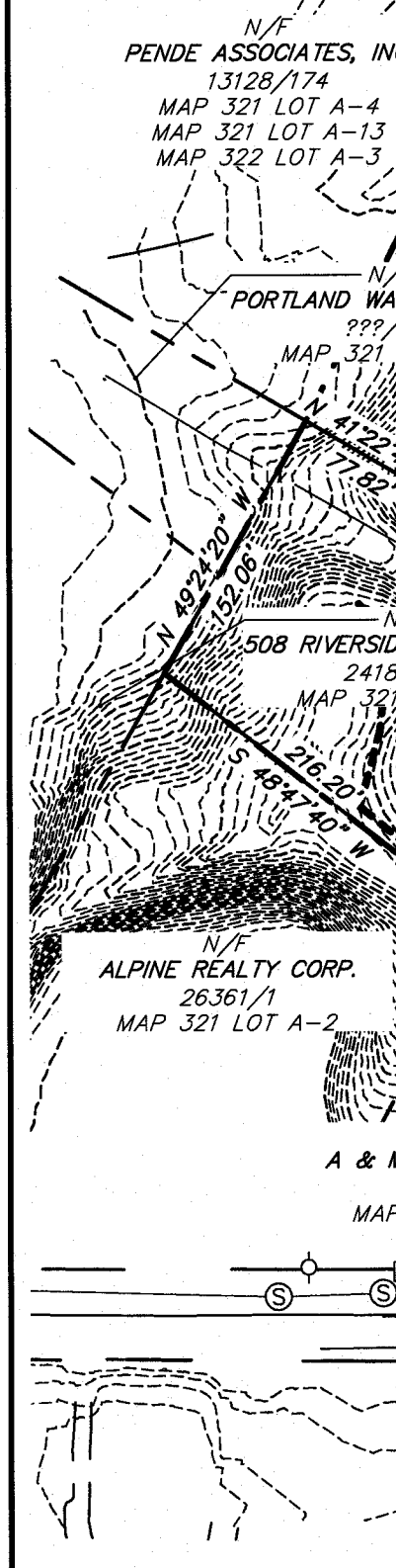
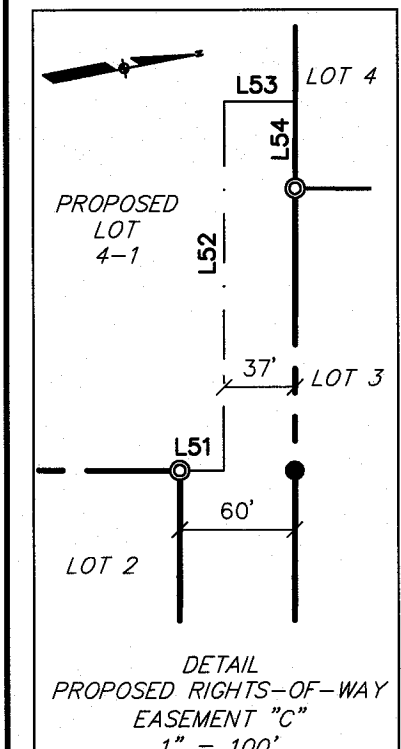
FOR CITY OF PORTLAND USE

GENERAL NOTES:

- 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.
- 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.
- 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.
- TOTAL AREA OF THE PROPOSED LOT 4-1 IS APPROXIMATELY 4.12 ACRES.
- BOUNDARY INFORMATION AS DEPICTED HEREON IS BASED ON PLAN REFERENCE 6A, 6B AND 6C HEREON. SEBAGO TECHINCS, 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 1, LLC BEING A PORTION OF LOT 4 AS DEPICTED ON THE HEREIN REFERENCED PLAN. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON PLAN REFERENCE 6A AND FIELD WORK PERFORMED BY SEBAGO TECHINCS, INC. ON THE PROPOSED SUBURBAN PROPRANE LOT AND 60-FOOT WIDE RIGHT-OF-WAY IN OCTOBER 2015.
- 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 43, (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.
- 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 CORPSSON 6.0.1 SOFTWARE, THE CHANGE FROM NAVD83 TO NGVD29 IS +0.688 FEET IN THIS VICINITY.
- 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.
- 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. HAVING AN EFFECTIVE DATE OF DECEMBER 8, 1998. PORTIONS OF THE SUBDIVISION PROPERTY IN PROXIMITY TO THE PRESUMPSCOT RIVER, ITS 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 FLOOD HAZARD AREA. PROPOSED LOT 4-1 IS PROPOSED TO BE AN UNSHADED ZONE X, AREAS DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOODPLAIN.
- THE WETLAND DELINEATION AS DEPICTED HEREON IS AS DEPICTED ON PLAN REFERENCE 6A, SEBAGO TECHINCS, INC. HAS NOT PERFORMED AN INDEPENDENT WETLAND SURVEY.
- THIS LINE REPRESENTS THE LIMITS OF THE TOPOGRAPHIC SURVEY PERFORMED BY SEBAGO TECHINCS, INC. FOR THIS PROJECT. THE REMAINING TOPOGRAPHIC INFORMATION WAS TAKEN DIRECTLY FROM PLAN REFERENCE 6A.
- THERE ARE NO BUILDINGS LOCATED ON THE PROPOSED PARCEL.
- PROPOSED LOT 4-1 IS SUBJECT TO DRAINAGE EASEMENTS REFERENCED HEREON AS DESCRIBED IN THE CORD BOOK 28269, PAGE 314, AS AMENDED AND RESTATED BY A SHARED ACCESS DRIVEWAY MAINTENANCE AGREEMENT (AMENDED AND RESTATED) OF NEAR DATE HERETHW TO BE RECORDED IN THE CORD (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 4-1 OF NEAR DATE HERETHW TO BE RECORDED IN THE CORD, AND 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 HERETHW TO BE RECORDED IN THE CORD. AS WELL AS THE TERMS AND CONDITIONS SET FORTH IN THE ABOVE REFERENCED DEED, THESE RIGHTS OF WAY MAY ALSO BE USED FOR PURPOSES OF THE INSTALLATION AND MAINTENANCE OF ALL UTILITIES.
- STORMDRAIN OVERFLOW EASEMENT AREA: LOT 4-1 SHALL RETAIN RIGHTS AND PERMISSIONS TO ACCESS STORM DRAINAGE EASEMENT AREA FOR THE PURPOSES OF INSPECTION AND 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.
- 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.
- 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 UNUSUAL CIRCUMSTANCES MAY RESULT FROM STRICT COMPLIANCE WITH THE TECHNICAL MANUAL STANDARD (SECTION 5.11E) 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 HAS WAIVED THE TECHNICAL MANUAL STANDARD (SECTION 5.11E) TO ALLOW STORMWATER MANAGEMENT AND DRAINAGE AS PROPOSED IN THE FINAL PLAN."

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'



STATE OF MAINE

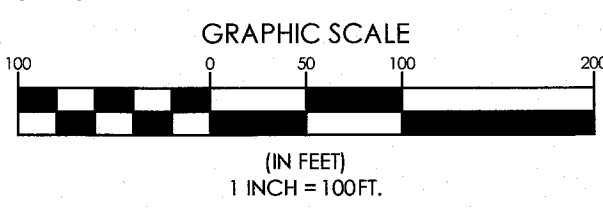
CUMBERLAND COUNTY SS REGISTRY OF DEEDS
2018 MAY 15 10:06 AM
AT 151 AND RECORDED 218 PAGE 199
PLAN BOOK
ATTEST
REGISTRAR

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'

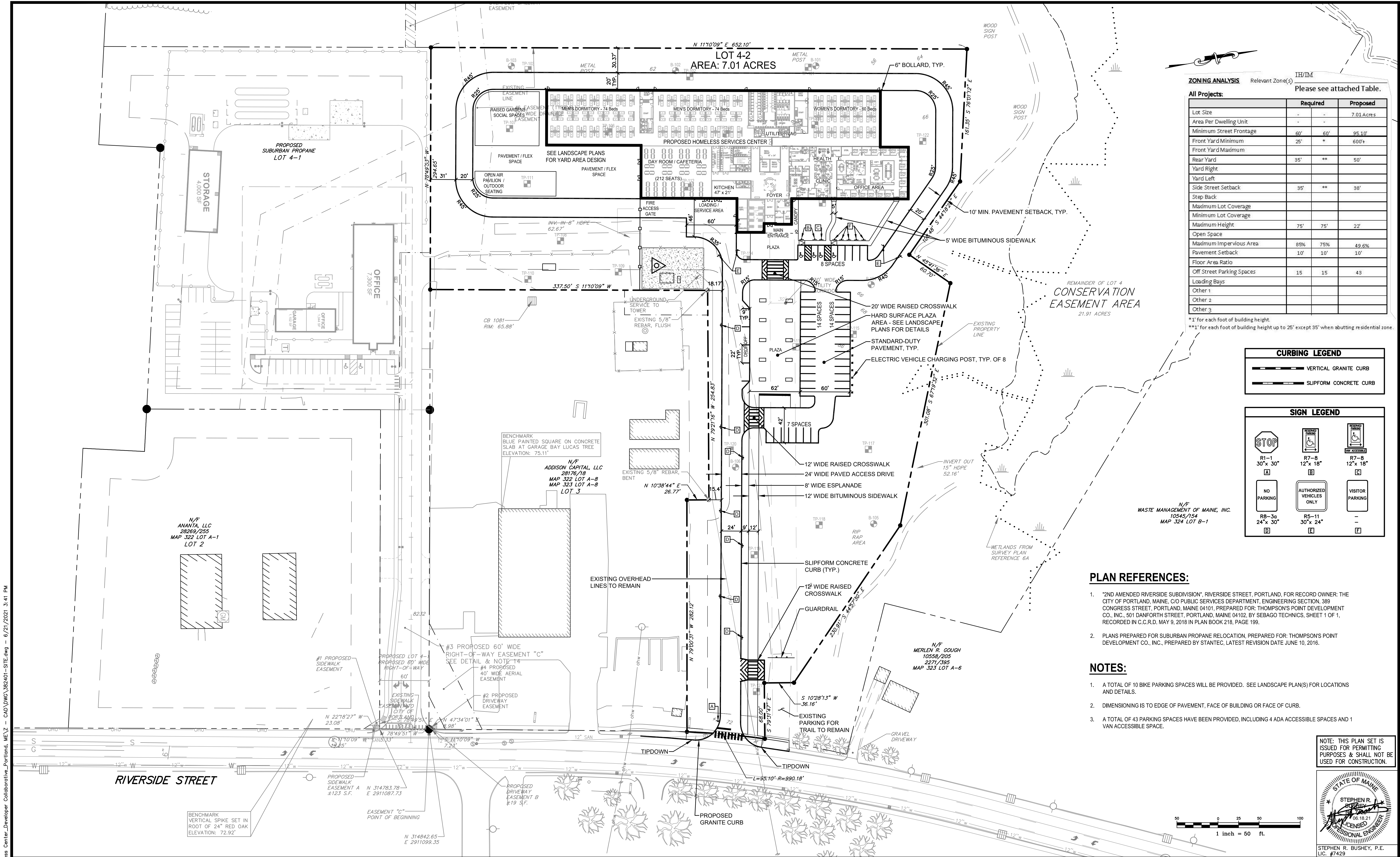
PROPOSED LOT 4-1 EASEMENT LIST:

- PROPOSED LOT 4-1 SIDEWALK EASEMENT OVER LOT 2 AT ACCESS EASEMENT "C".
- PROPOSED LOT 4-1 DRIVEWAY EASEMENT OVER LOT 3 AT ACCESS EASEMENT "C".
- AMENDED ACCESS EASEMENT "C" OVER PROPOSED LOT 4-1.
- PROPOSED 40' WIDE AERIAL UTILITY EASEMENT.
- OVERFLOW SPILLWAY OVER REMAINDER OF LOT 4.
- EXISTING DRAINAGE EASEMENT OVER PROPOSED LOT 4-1 AND REMAINDER OF LOT 4 AS DEPICTED ON PLAN REFERENCE 6A.
- SIDEWALK EASEMENT ALONG LOT 2 AND LOT 3 AT RIVERSIDE STREET AS DEPICTED ON PLAN REFERENCE 6A.
- EXISTING 60' WIDE DRAINAGE EASEMENT AS DEPICTED ON PLAN REFERENCE 6A.

PROPERTY LINE TABLE		
LINE	DIRECTION	DISTANCE
L38	S 11°10'09" W	60.00'
L41	N 78°01'12" W	119.58'
L46	S 13°58'48" W	75.00'



U:\3824.01\Portland Homeless Center Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-SITE.dwg - 6/21/2021 3:41 PM



ZONING ANALYSIS

Relevant Zone(s)

IH/TM

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"	R7-B 12"x 18"	R7-B 12"x 18"
A	B	C
R8-3a 24"x 30"	R5-11 30"x 24"	-
D	E	F

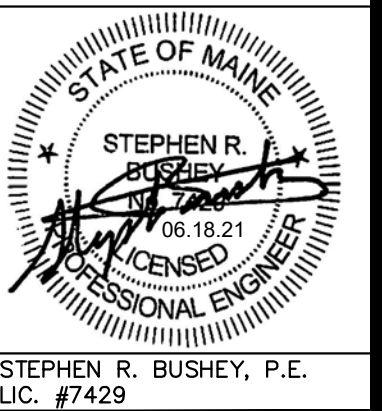
PLAN REFERENCES:

- "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.
- PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

- A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
- DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
- 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.



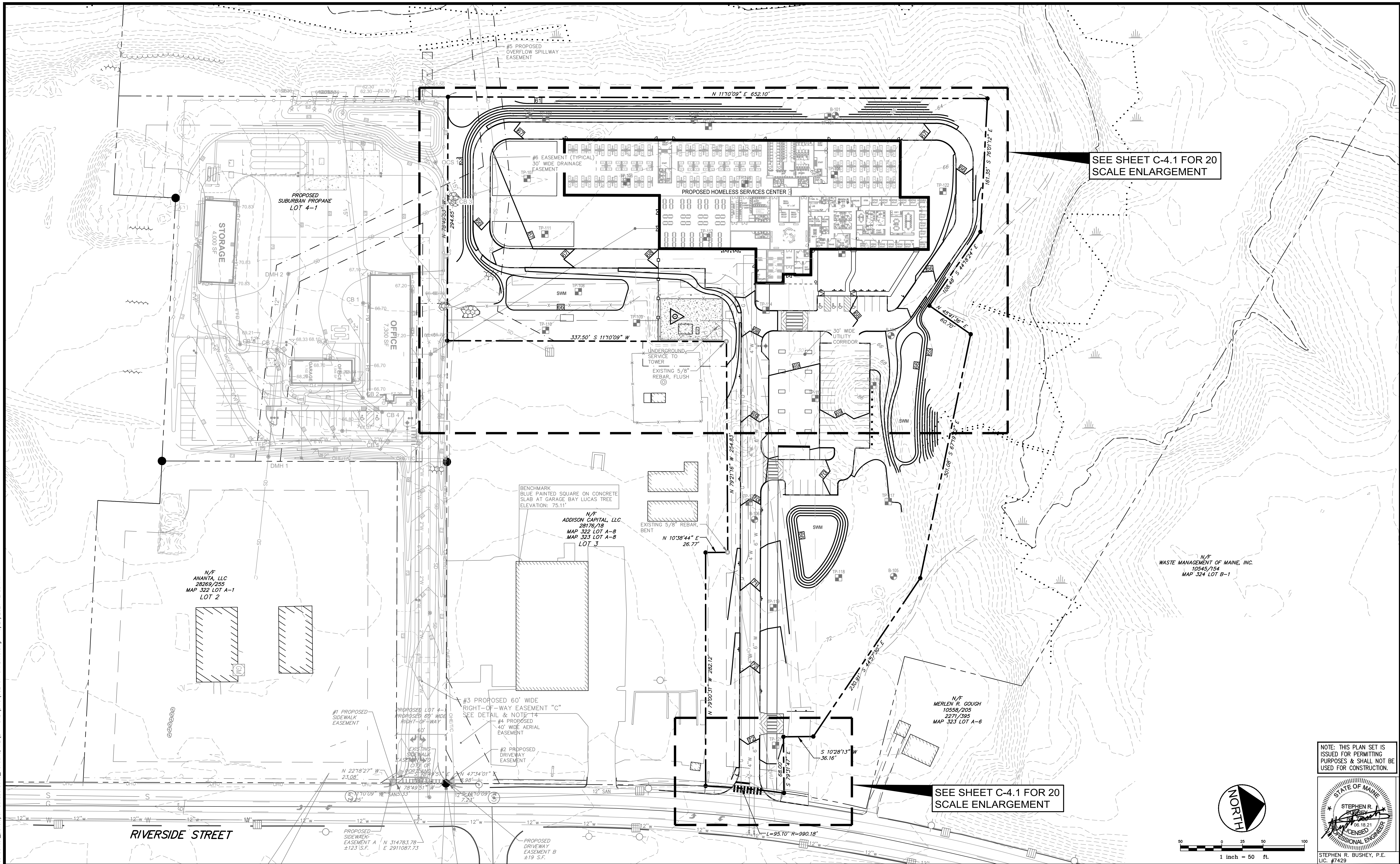
Rev.			Date	Revision
1			2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW
Rev.			Date	Revision

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 Corril Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Corril Palmer.		

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	
-------------	--	-------	--

U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-GRADING.dwg - 6/21/2021 12:56 PM



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



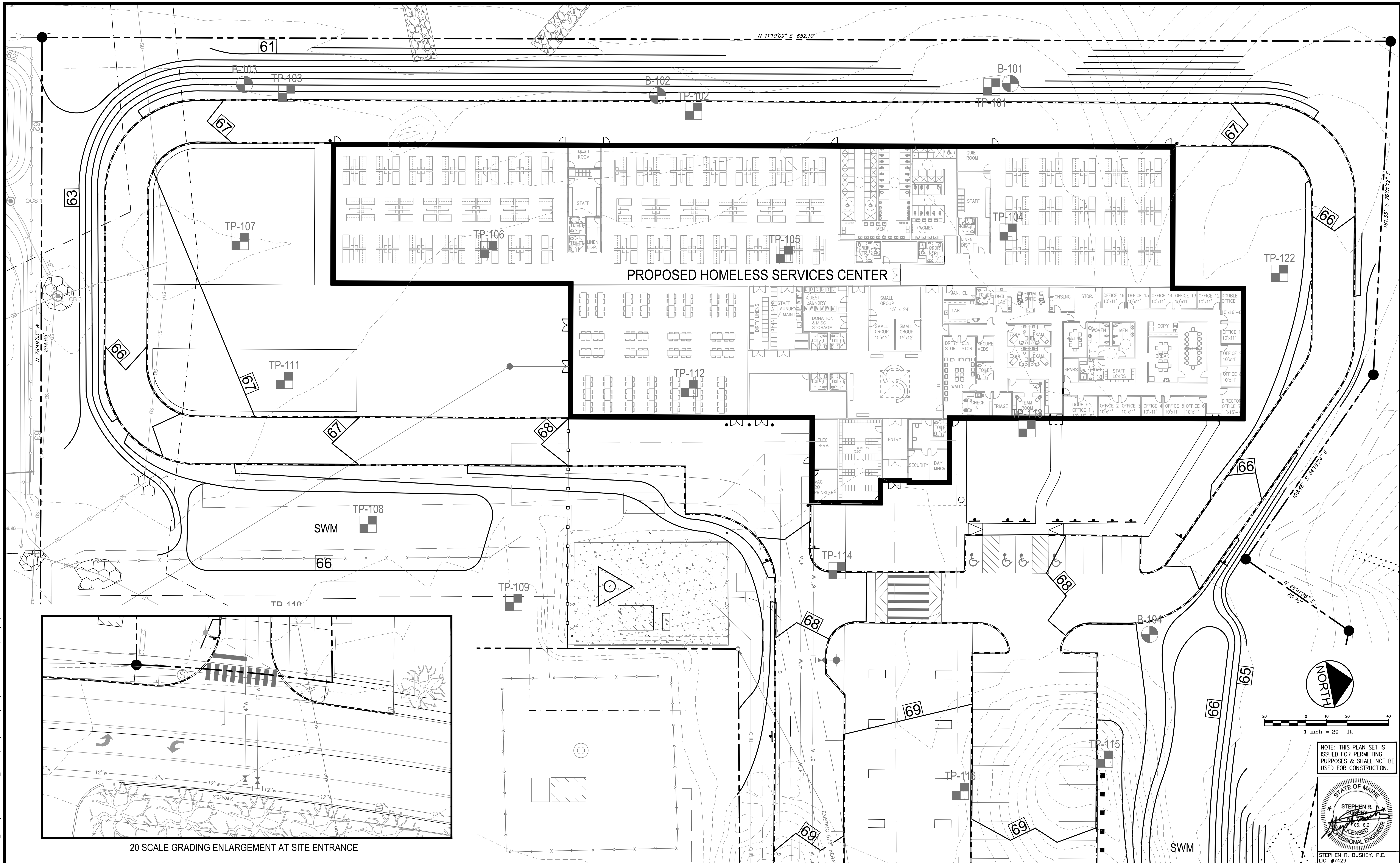
GORRELL PALMER

Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

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

U:\3824.01\Portland Homeless Center Developer Collaborative-Portland, ME\Z - CAD DWG\382401-GRADING.dwg - 6/21/2021 3:43 PM



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

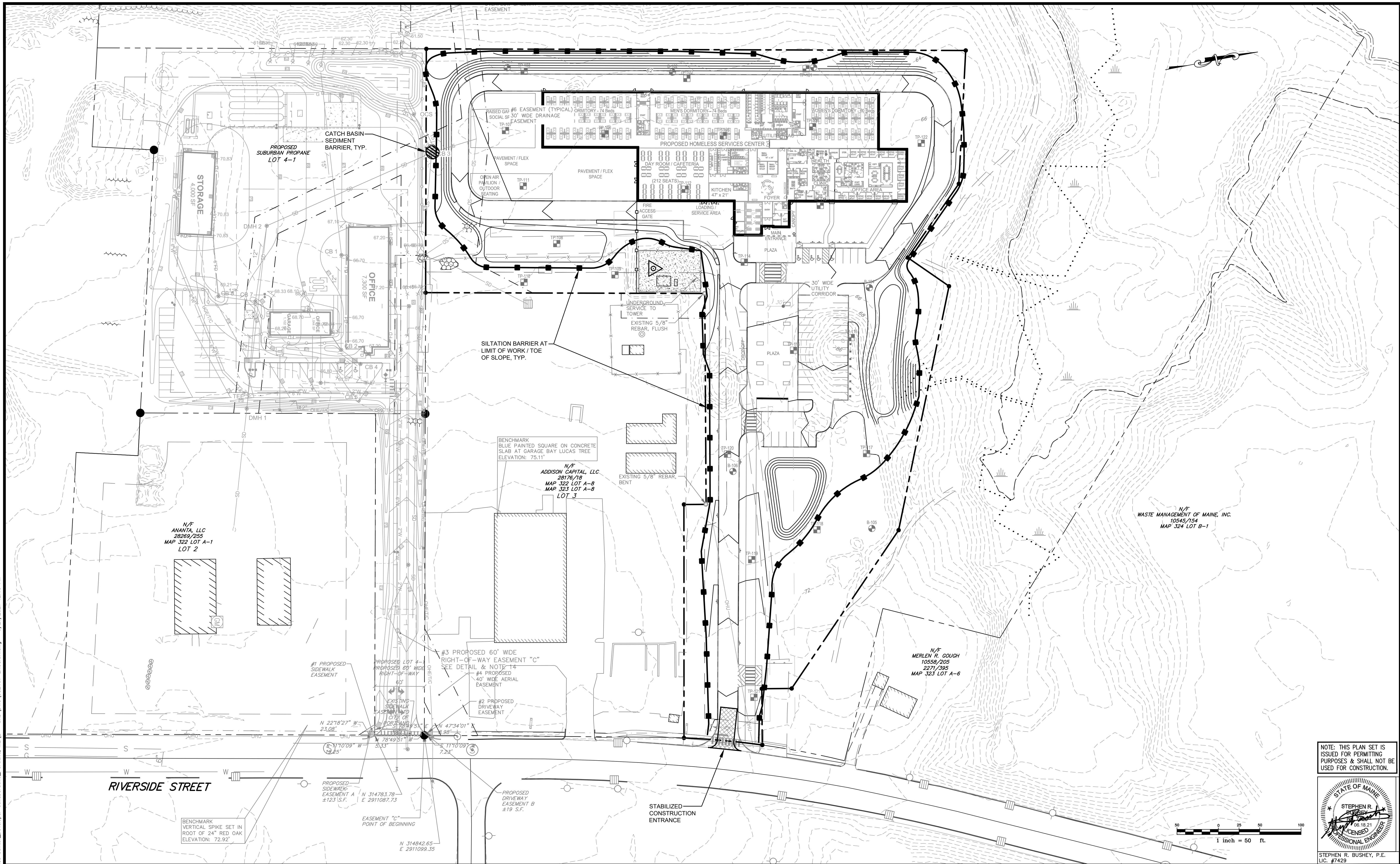


Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

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

U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD DWG\382401-EROSION.dwg - 6/21/2021 12:15 PM



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

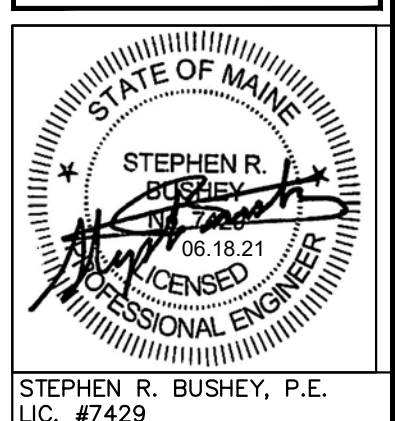


**GORRELL
PALMER**

Relationships. Responsiveness. Results.
www.gorrellpalmer.com
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

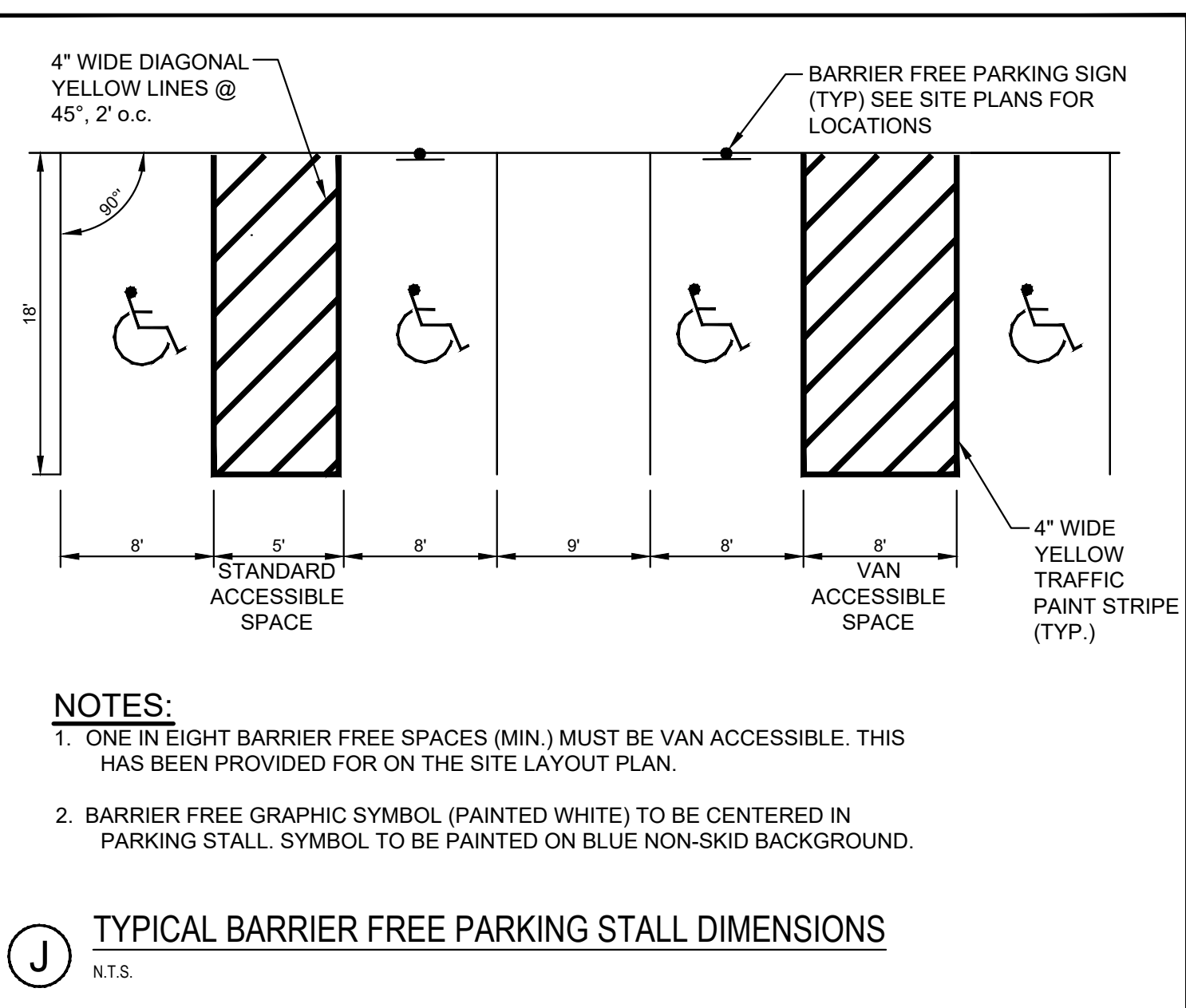
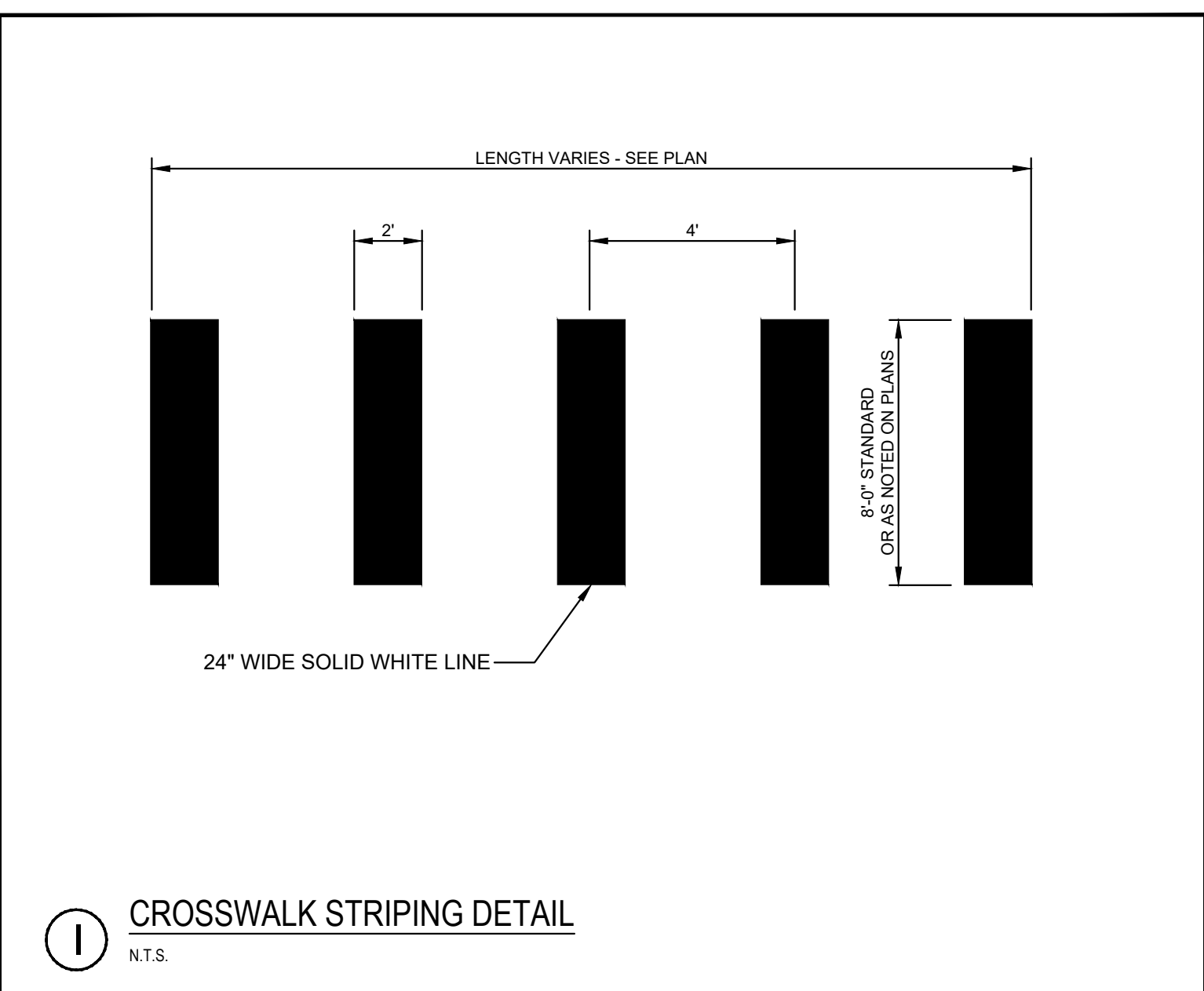
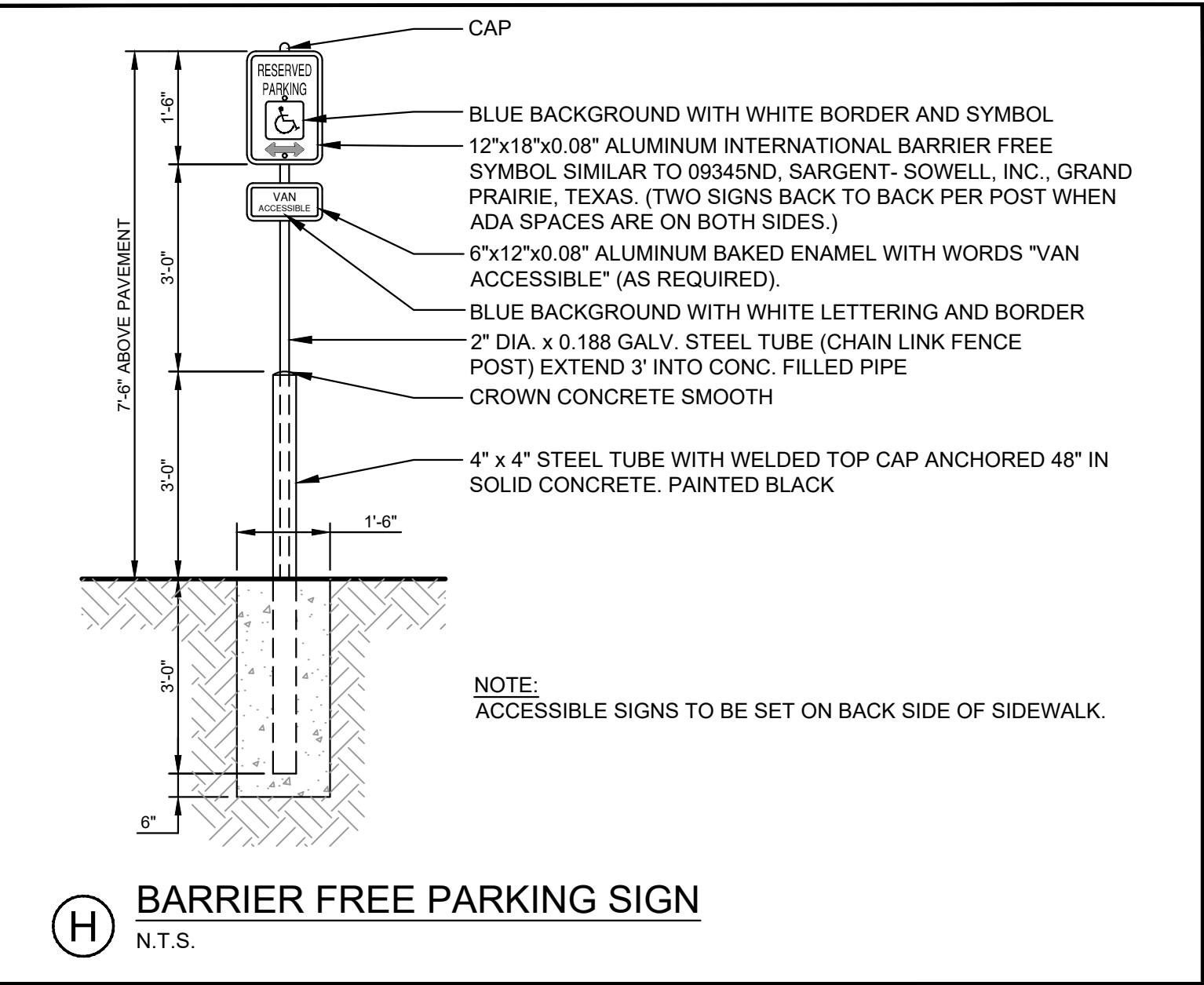
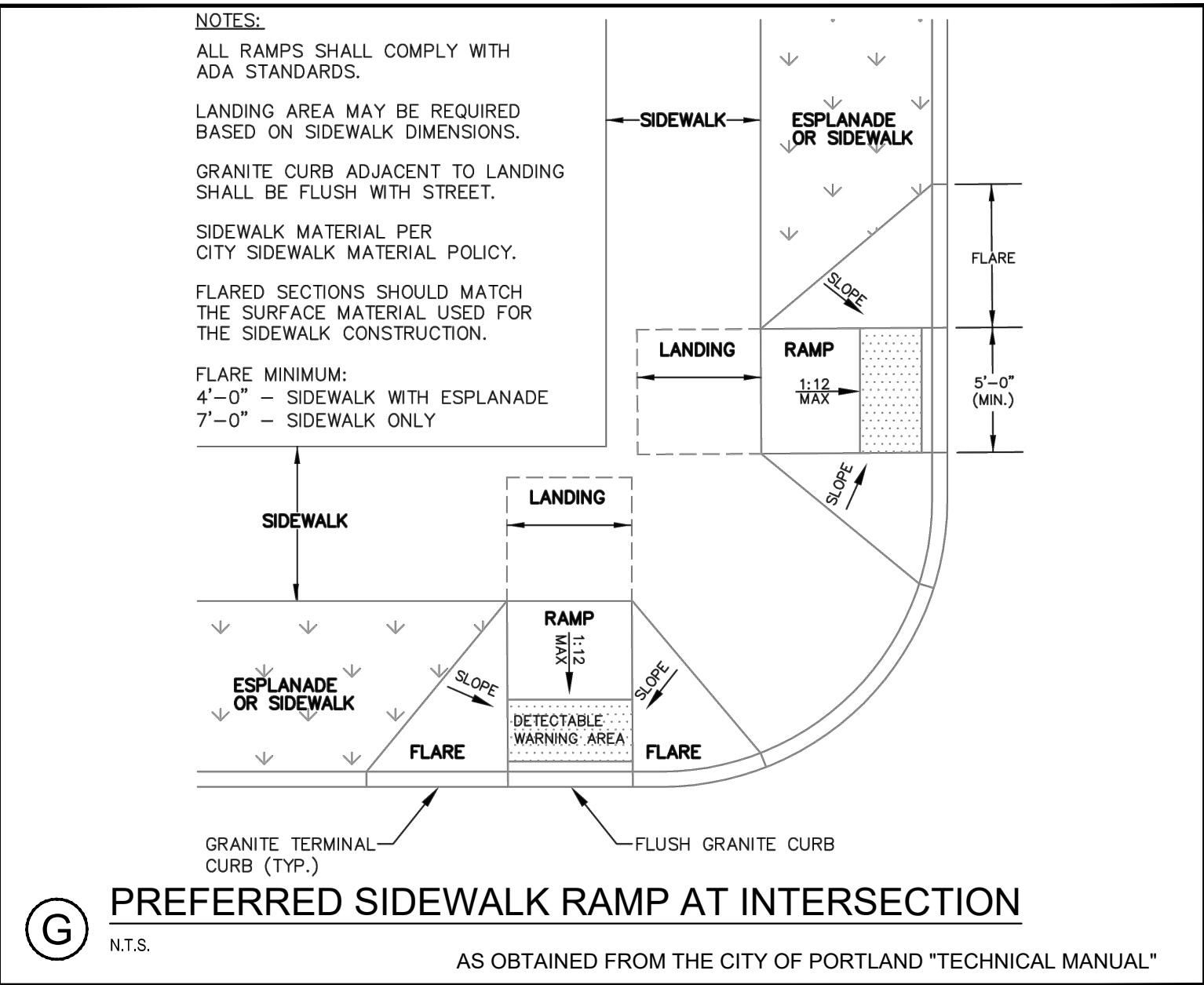
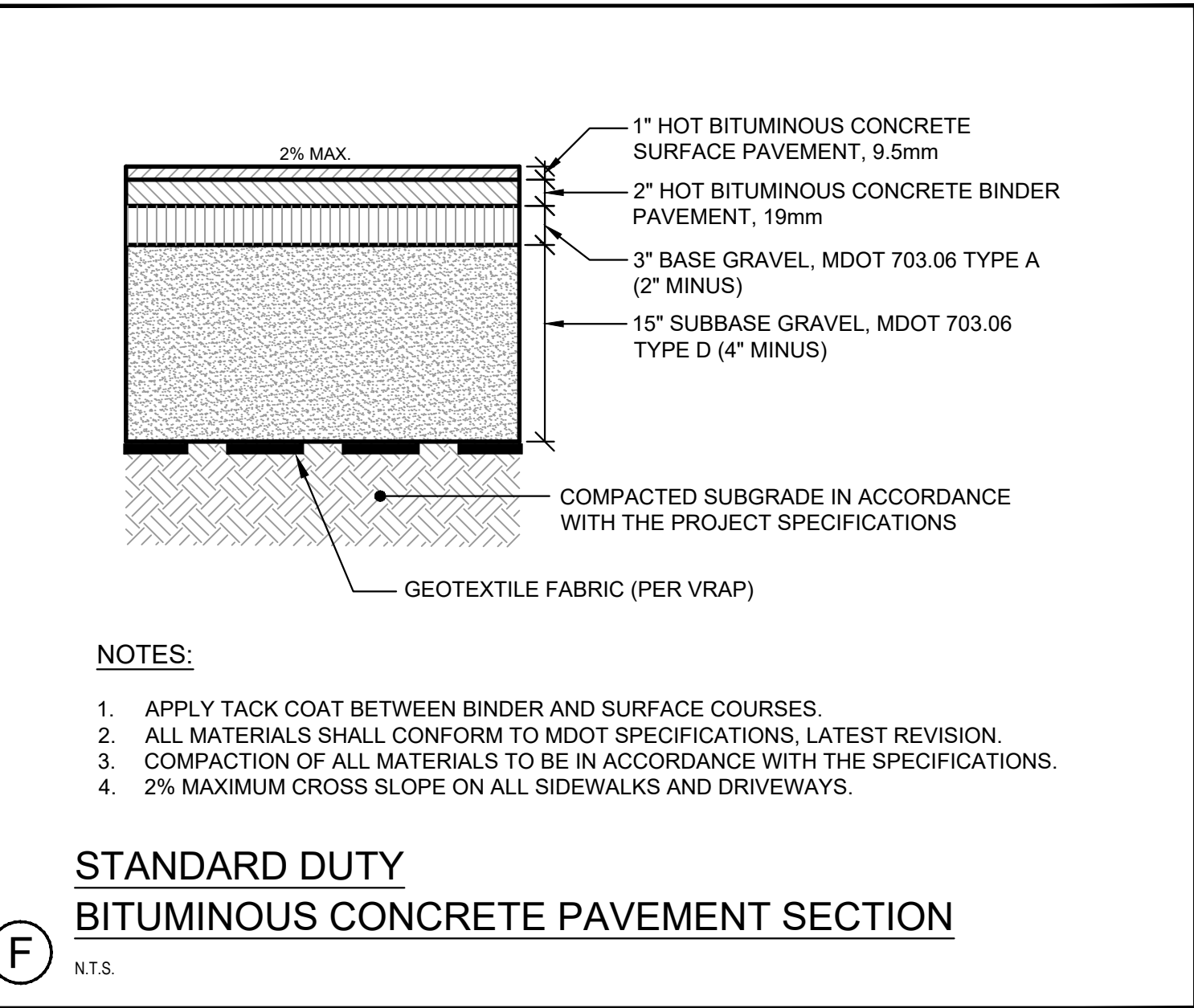
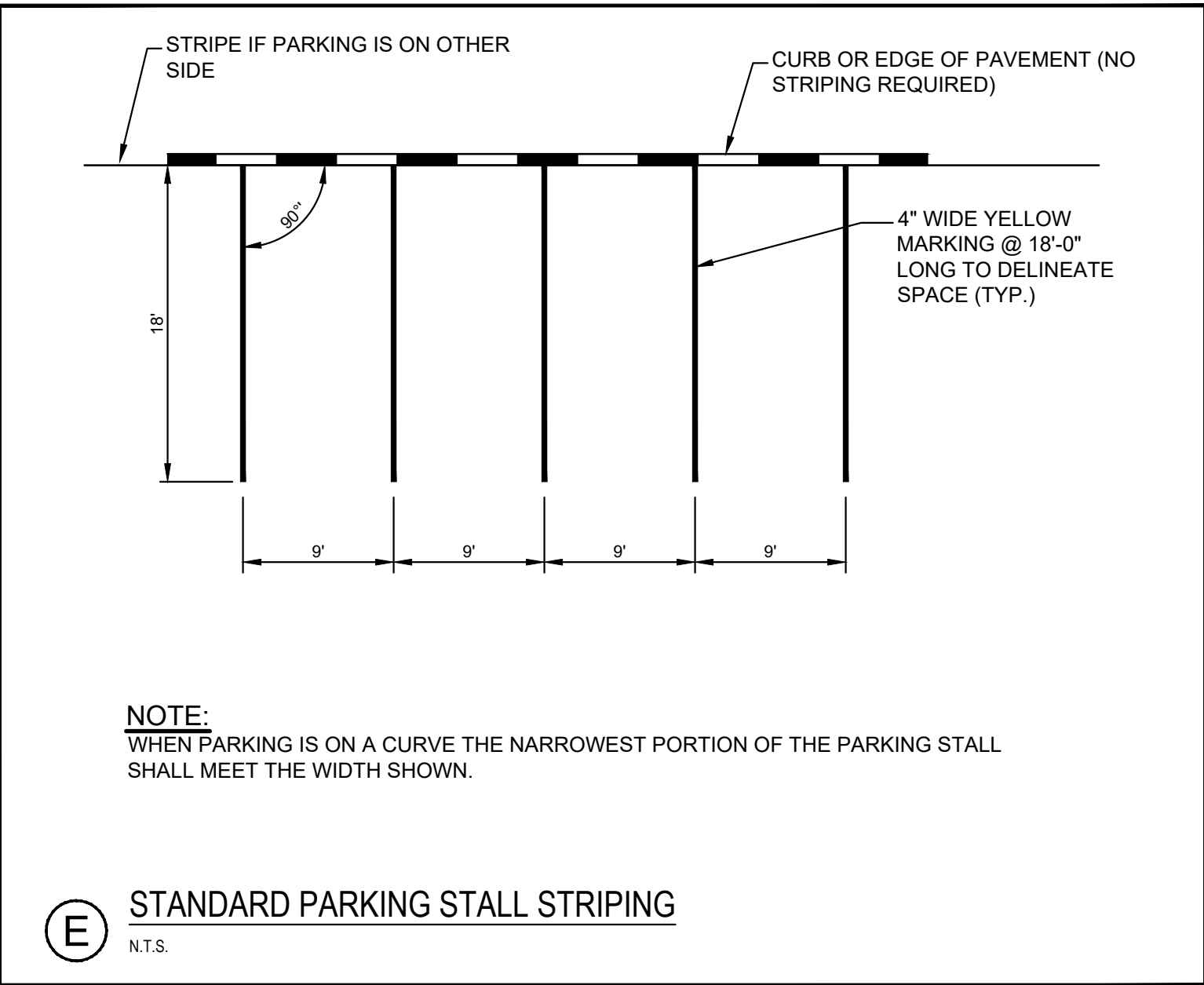
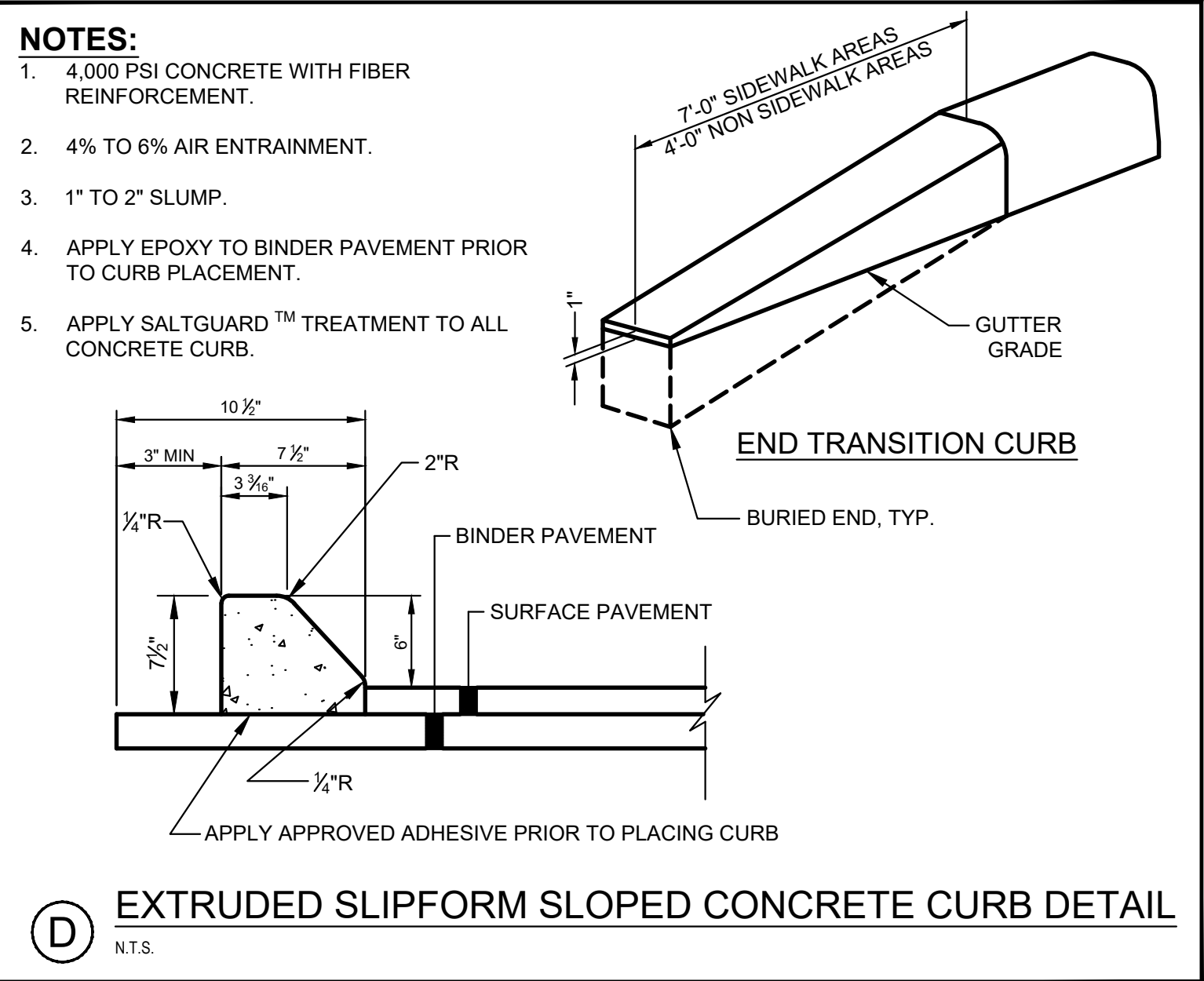
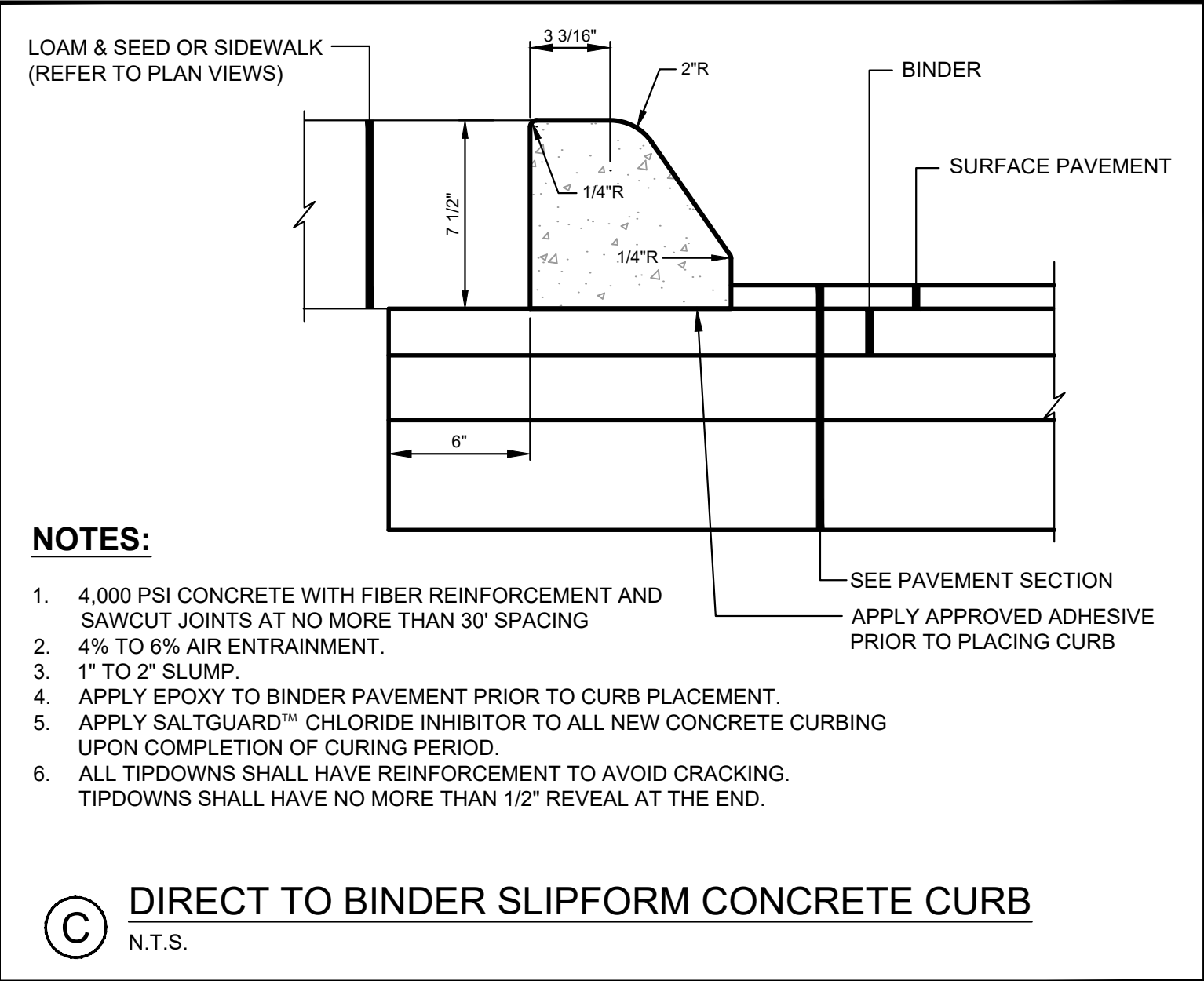
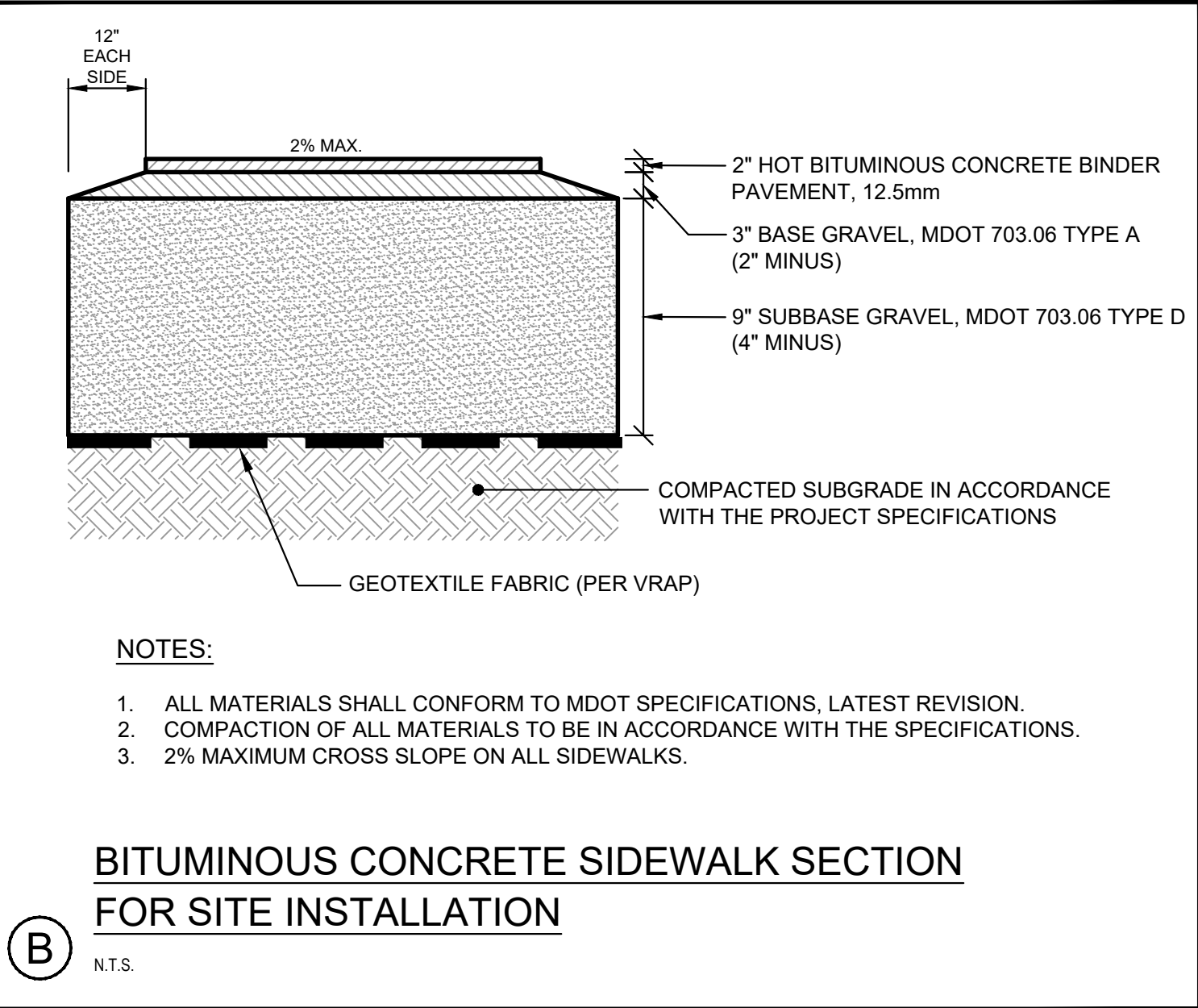
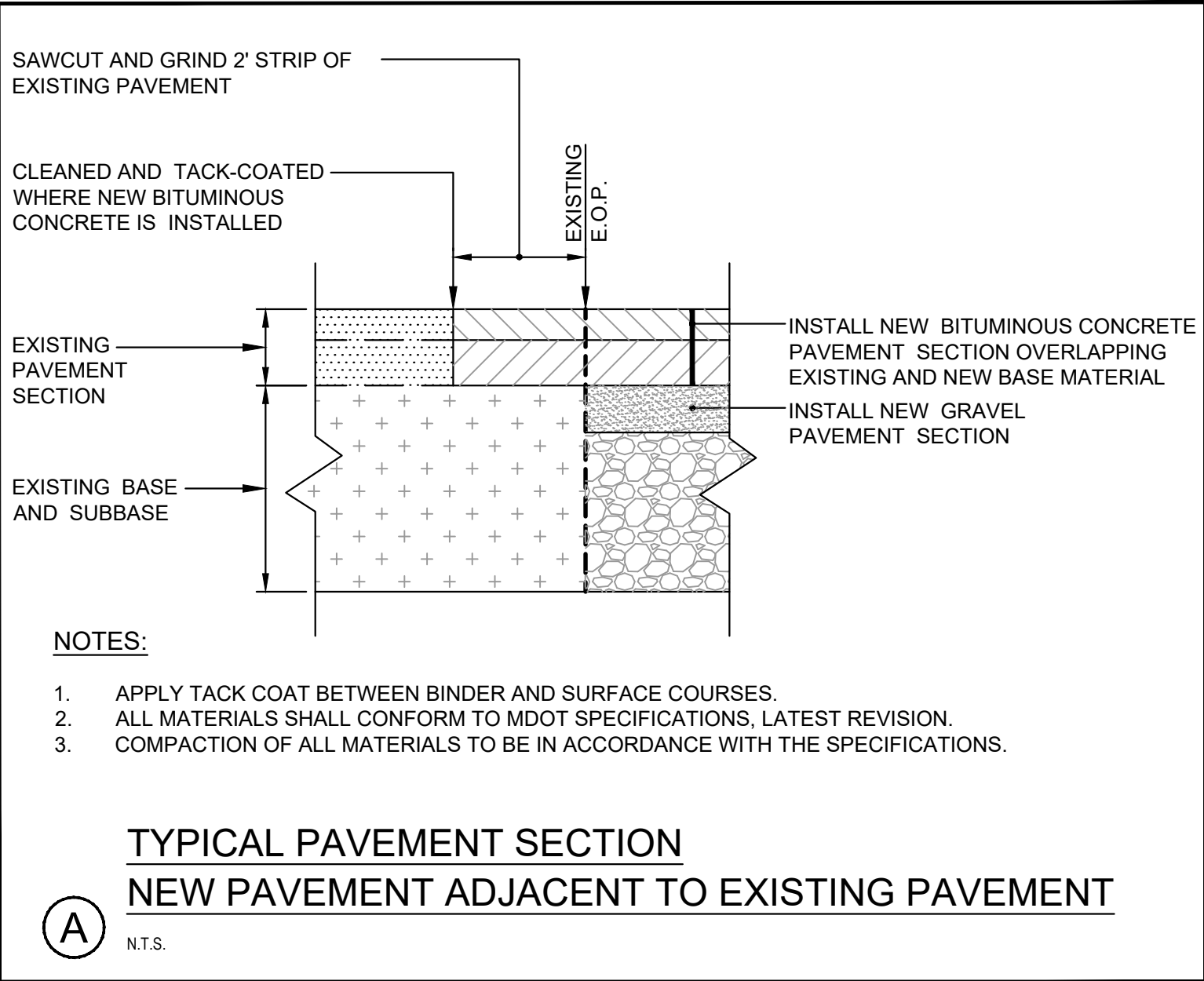
Drawing No.
C-5.0



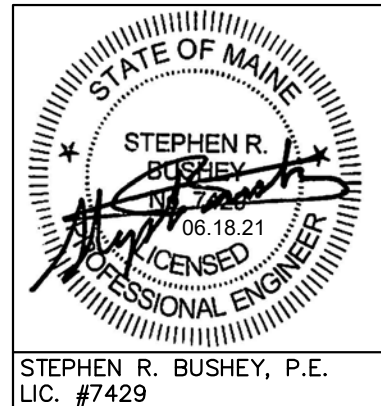
Drawing No.

C-6.0

U:\3824.01-Portland Homeless Center-Developer Collaborative-Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 6/21/2021 11:12 AM



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

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		

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.



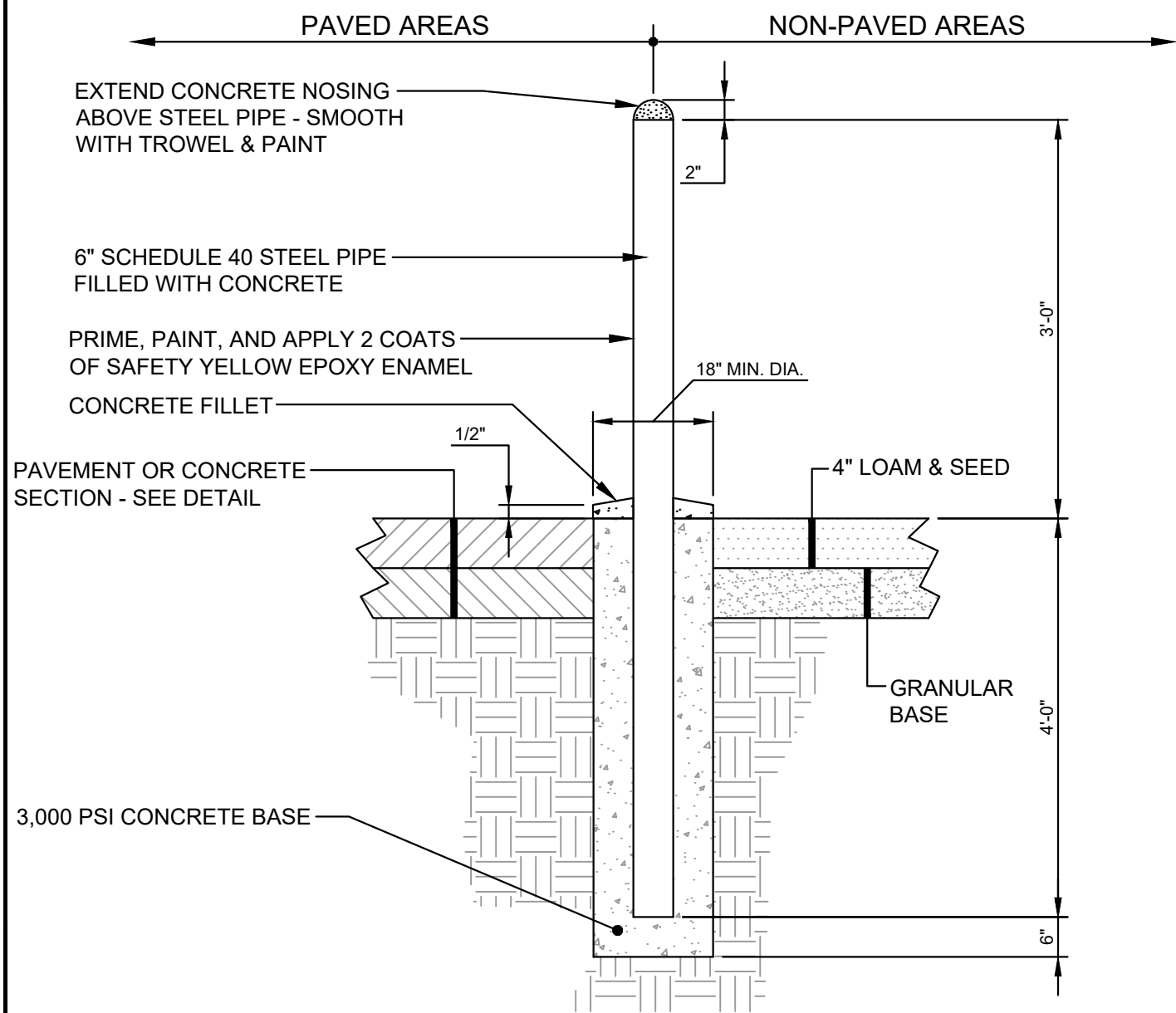
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

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.

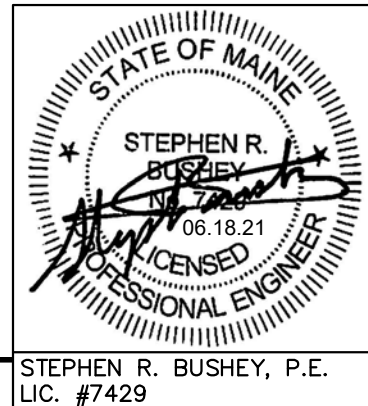
C-8.0

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 6/21/2021 11:13 AM



A PIPE BOLLARD DETAIL
N.T.S.

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



Rev.	Date	Revision

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

Design:	SRB	Draft:	CDD	Date:	JUNE 2021
Checked:	SRB	Scale:	AS NOTED	Job No.:	3824.01
File Name: 382401-DETAILS.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.					

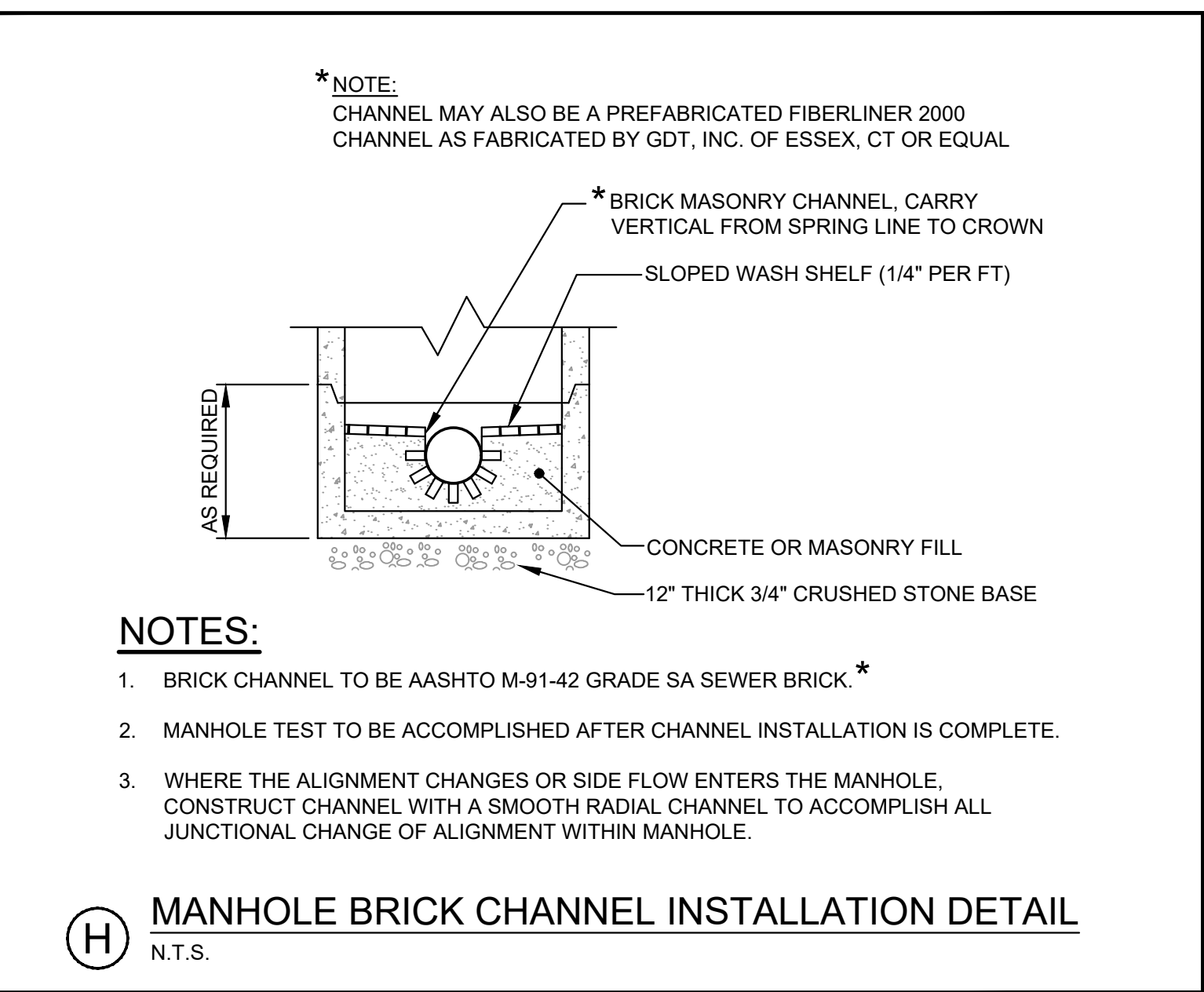
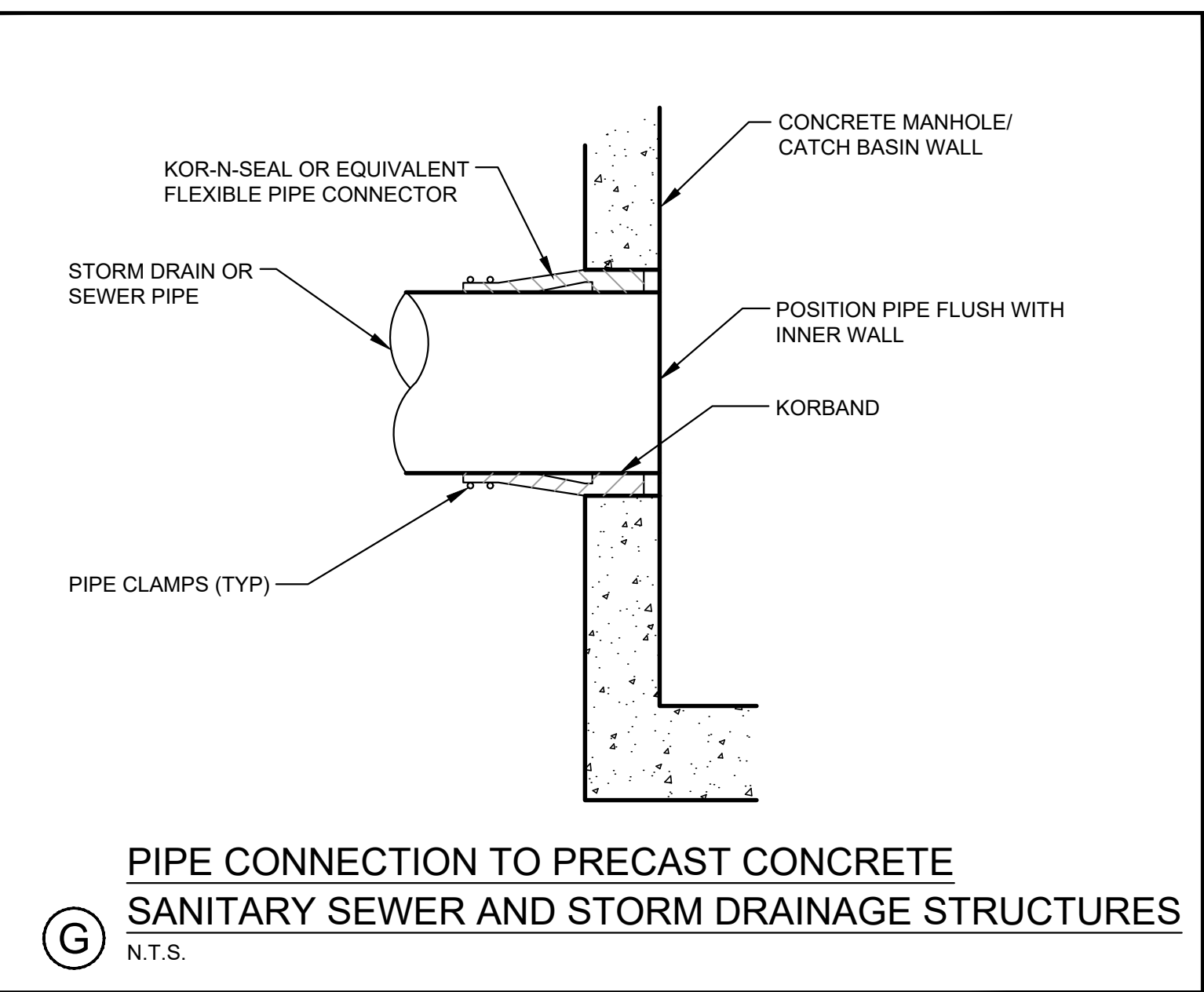
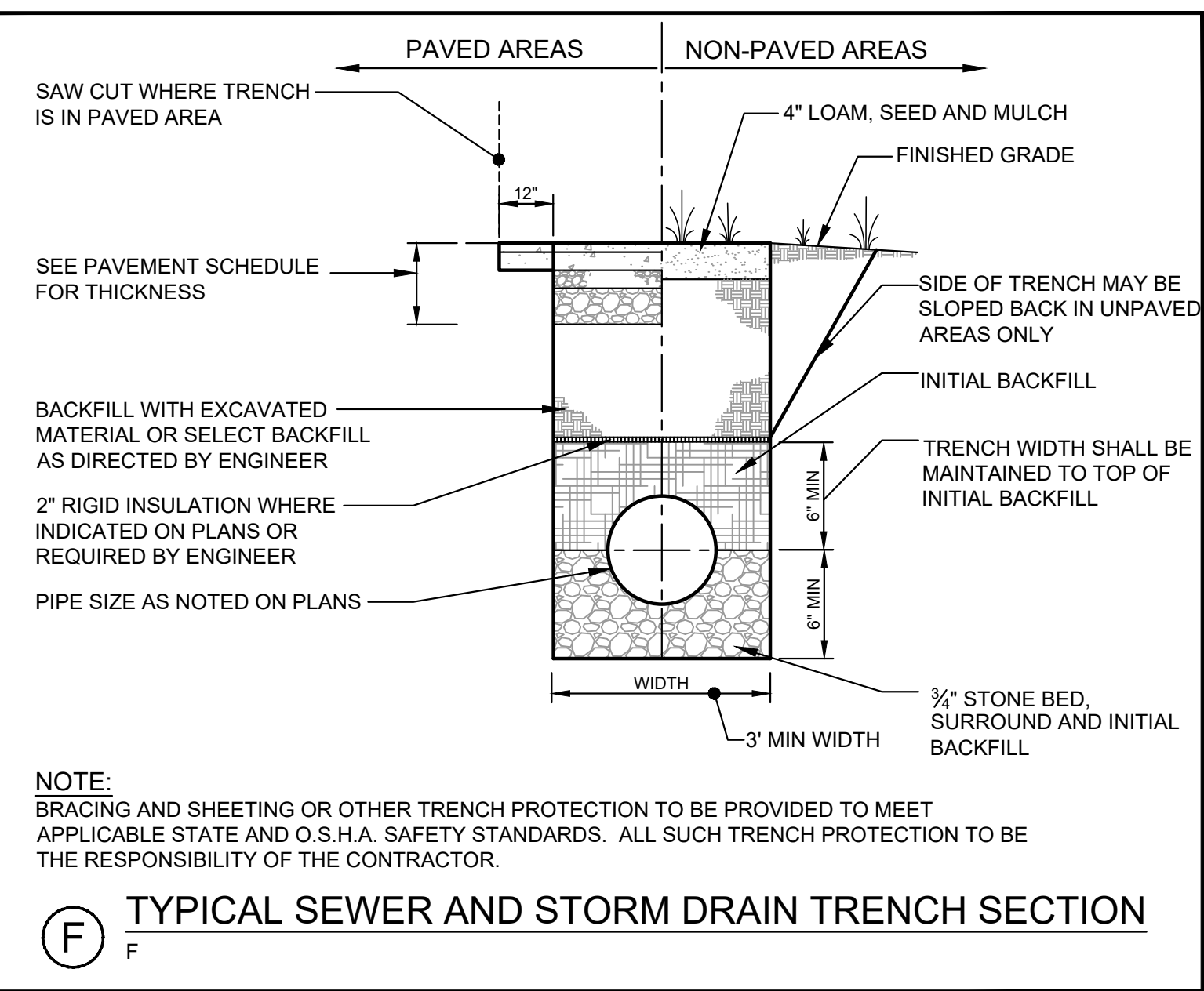
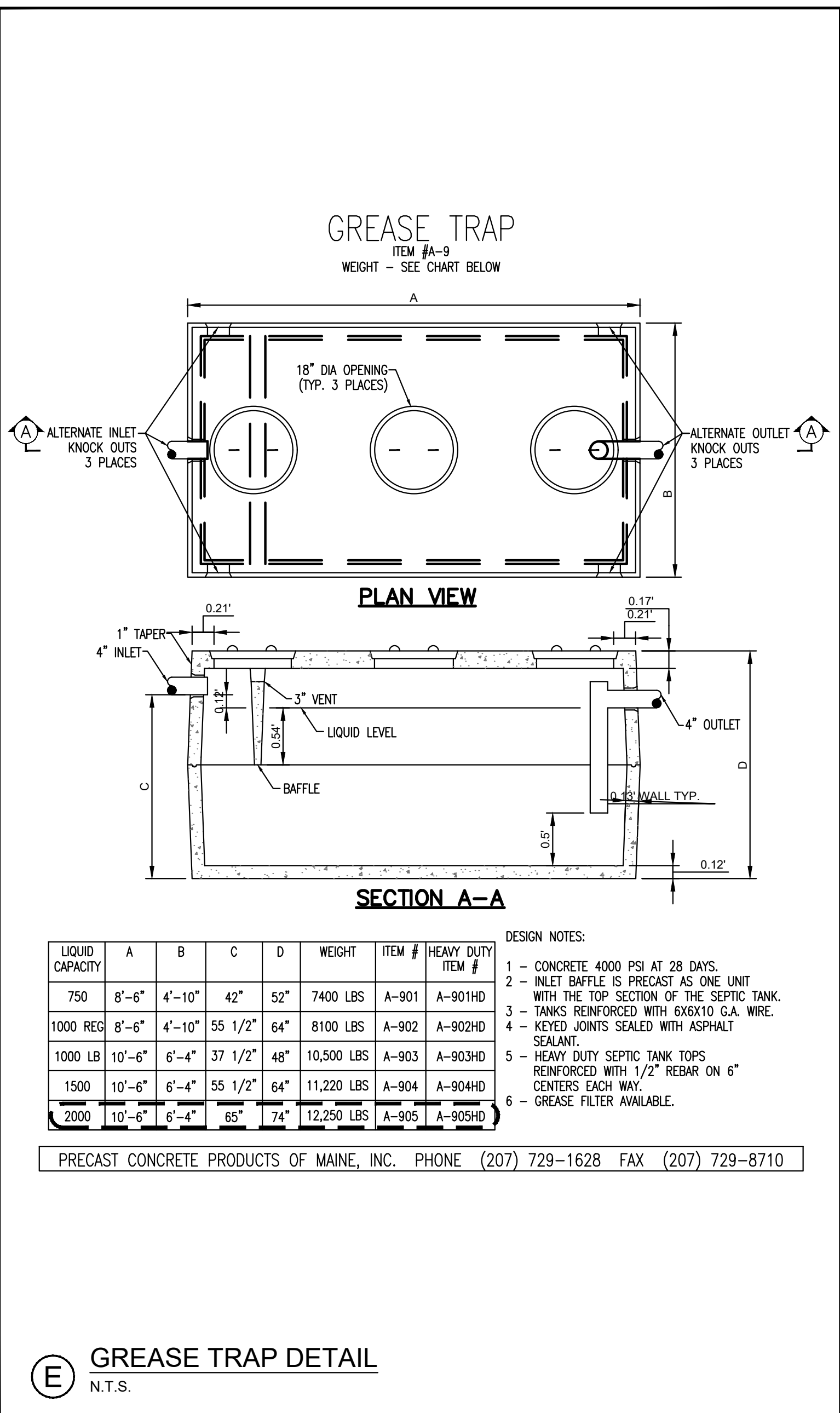
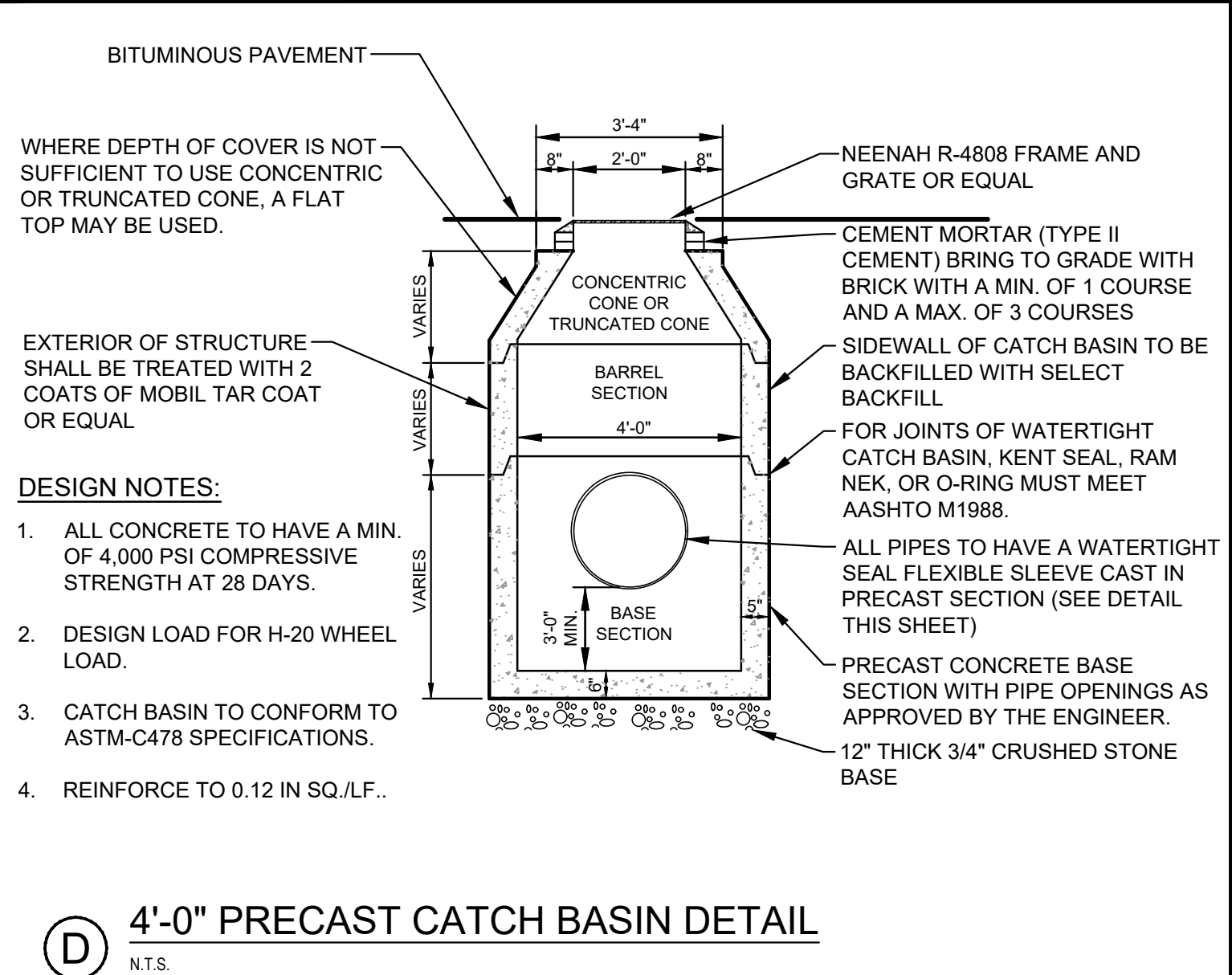
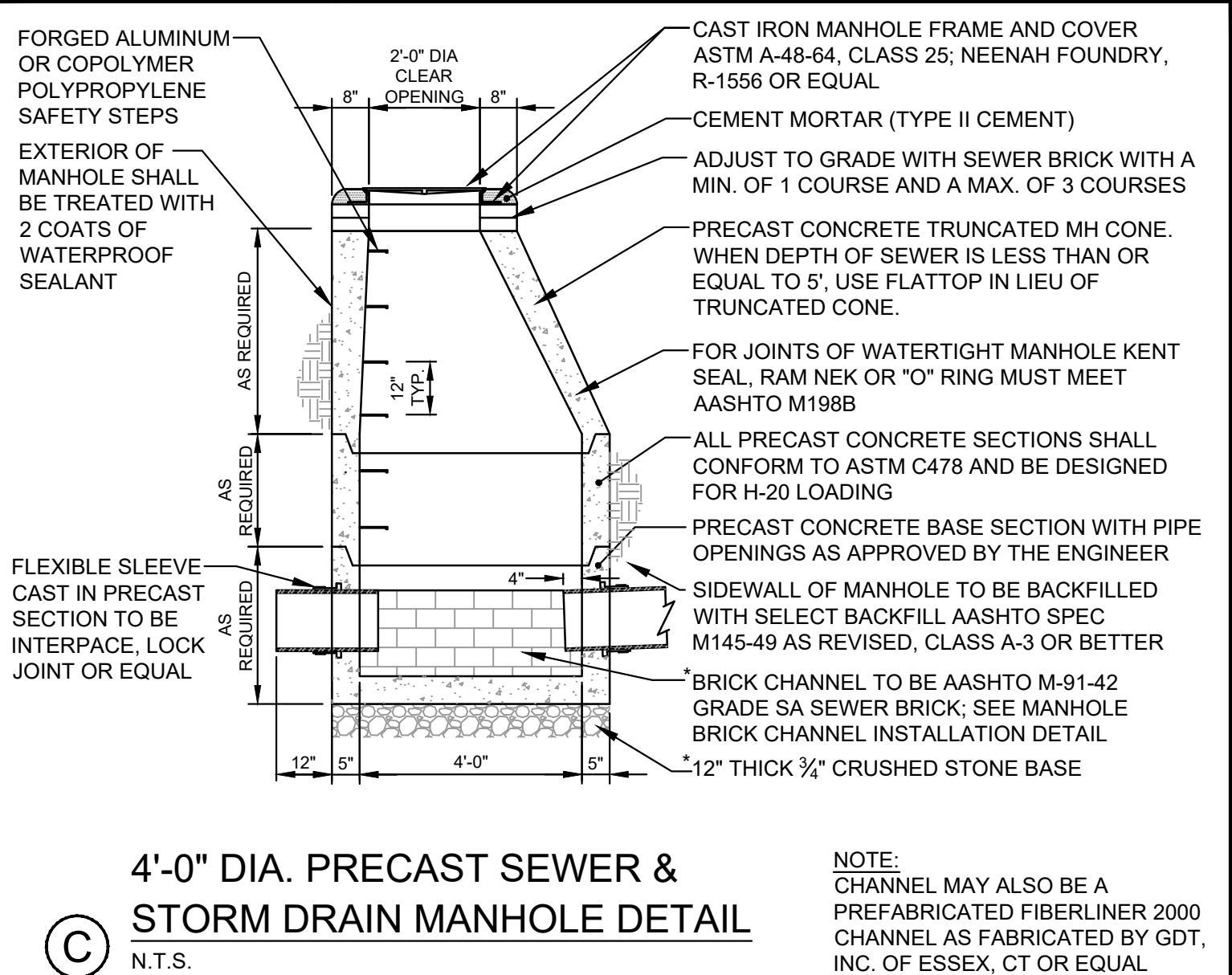
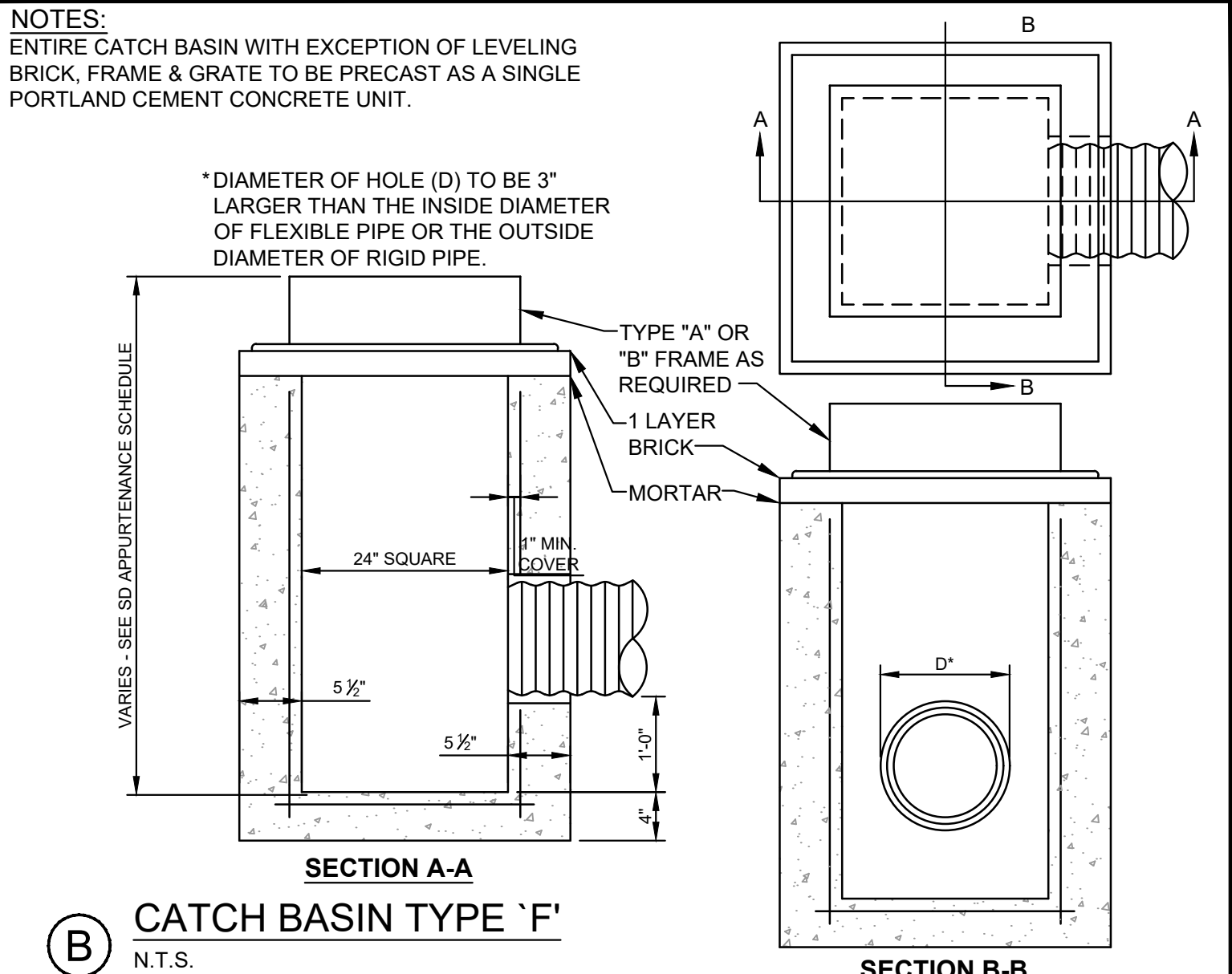
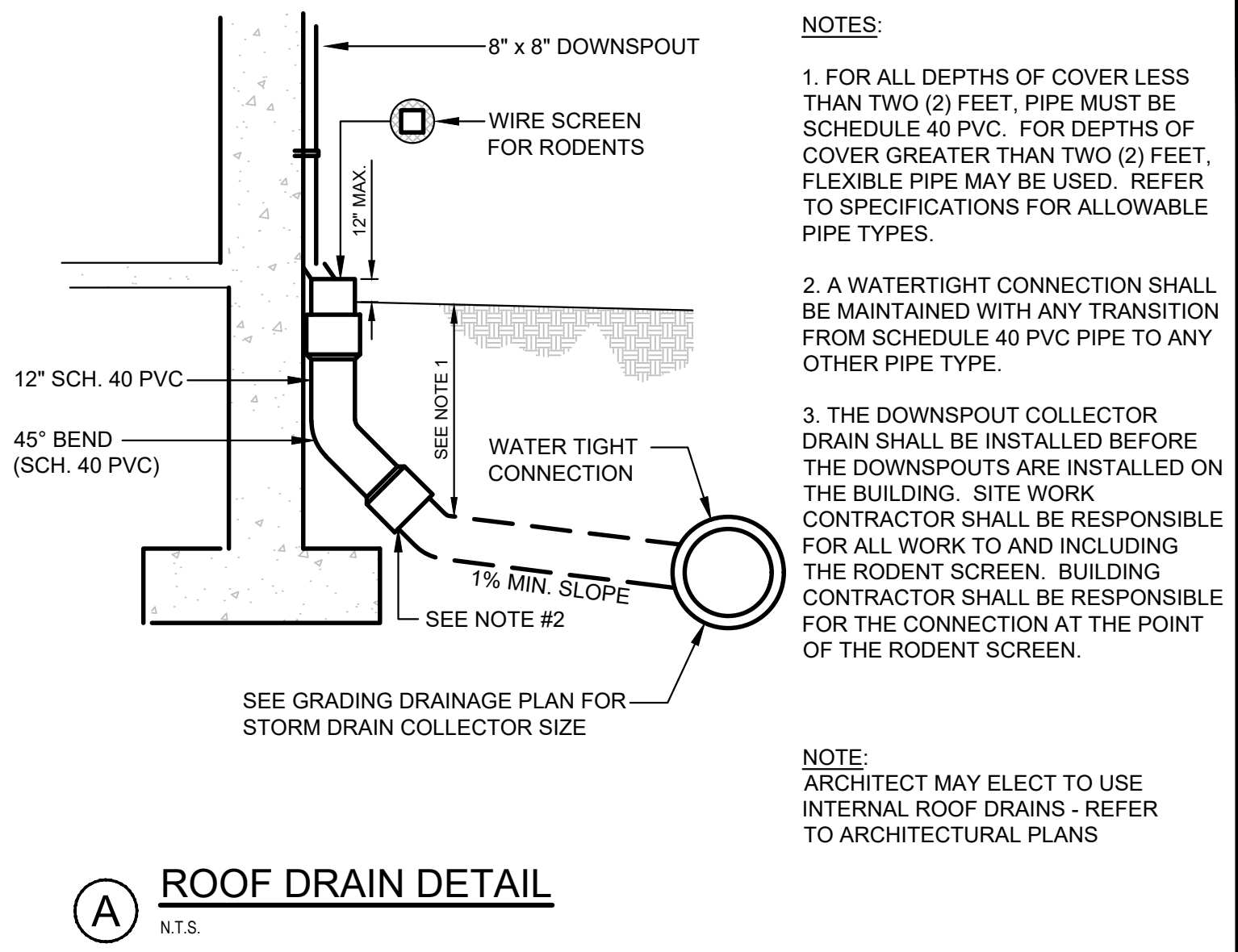


Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

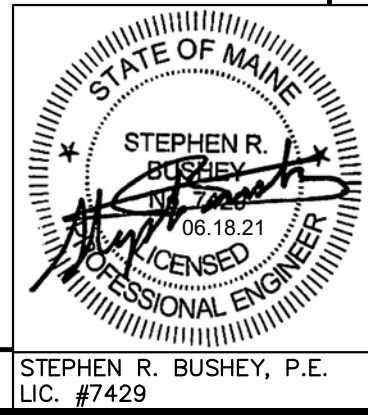
Drawing Name:	SITE DETAILS
Project:	Homeless Services Center 654 Riverside Street, Portland, Maine
Client/Owner:	DC Predevelopment LLC 100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No.
C-8.1

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 6/21/2021 11:13 AM



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



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

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		



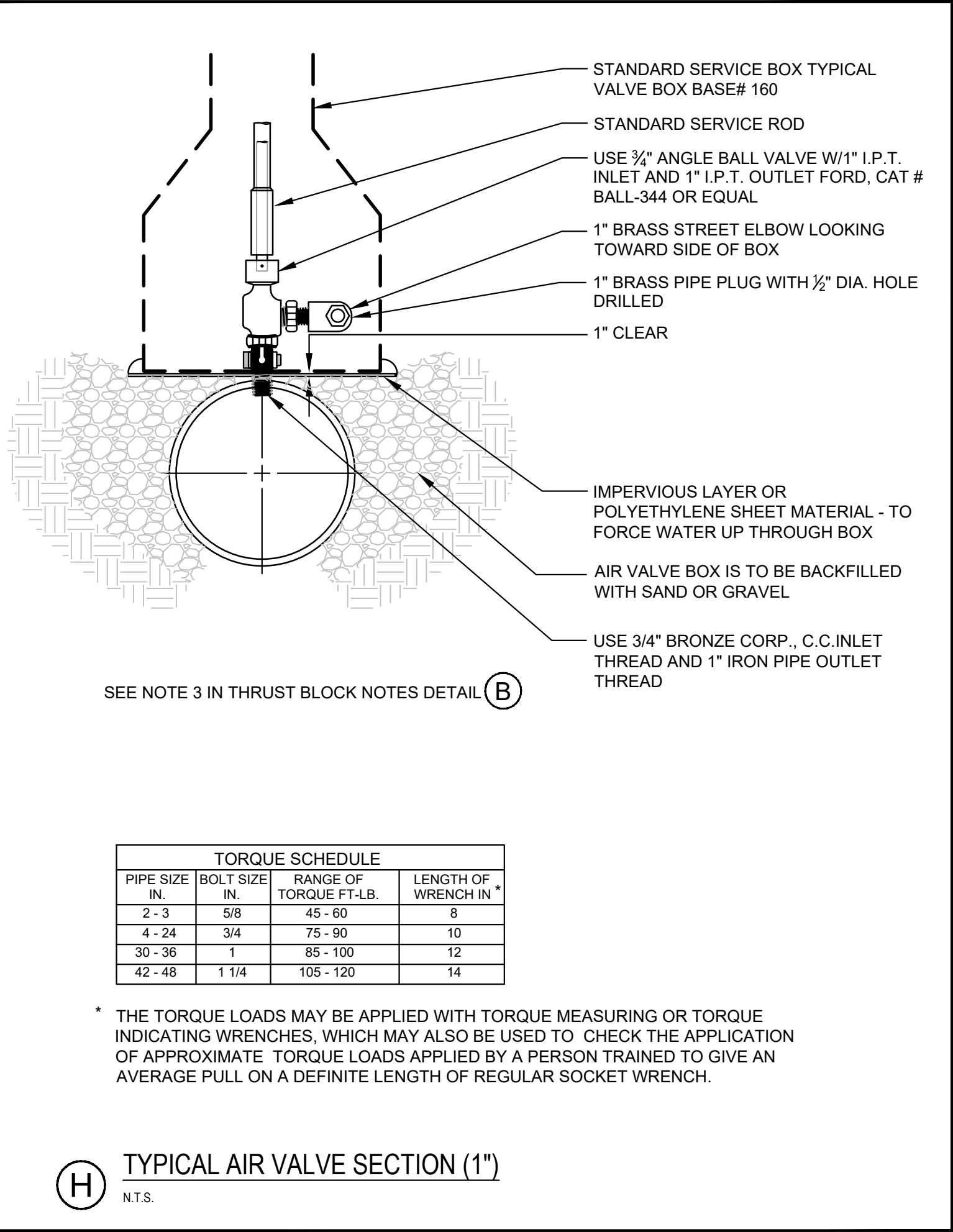
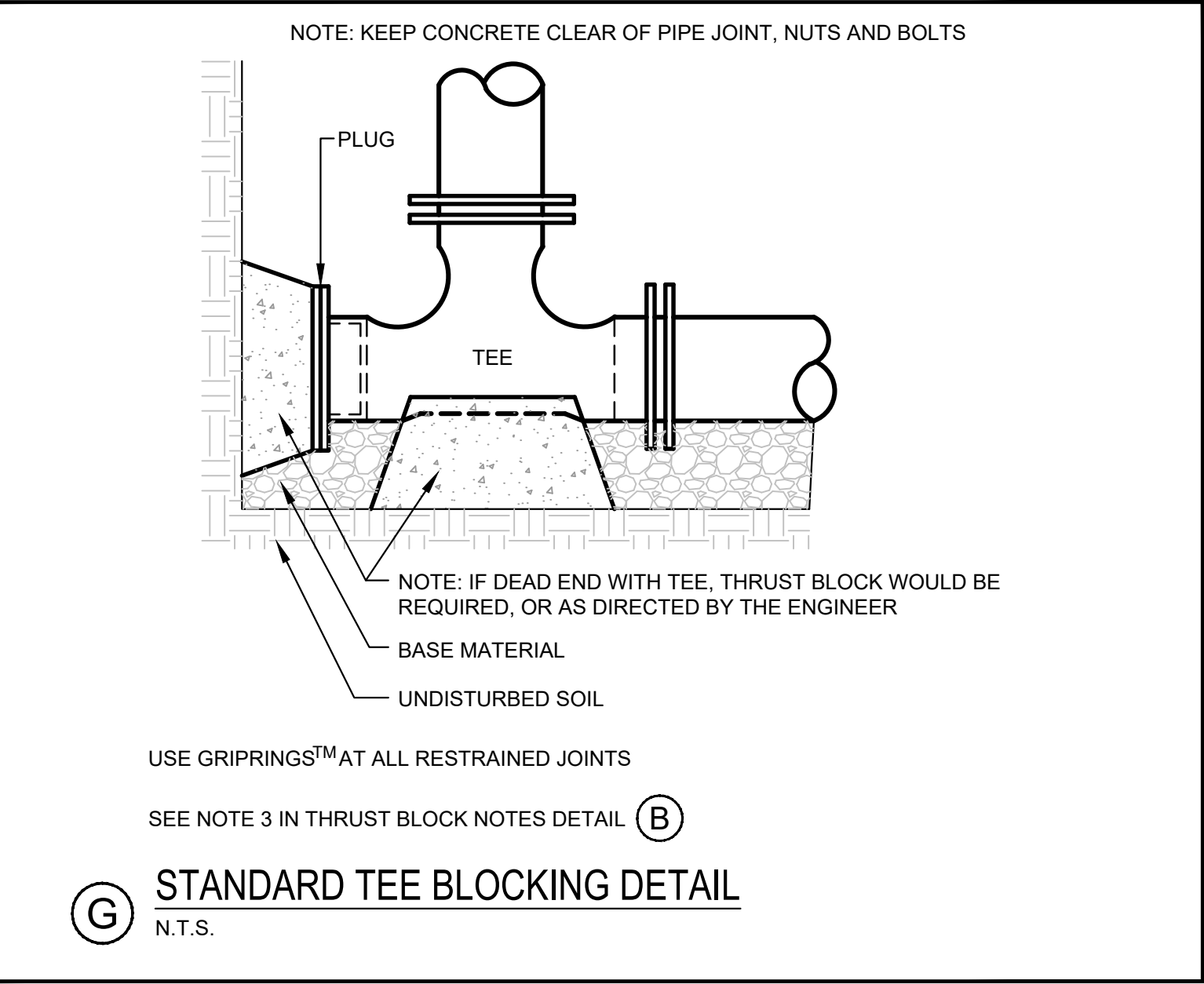
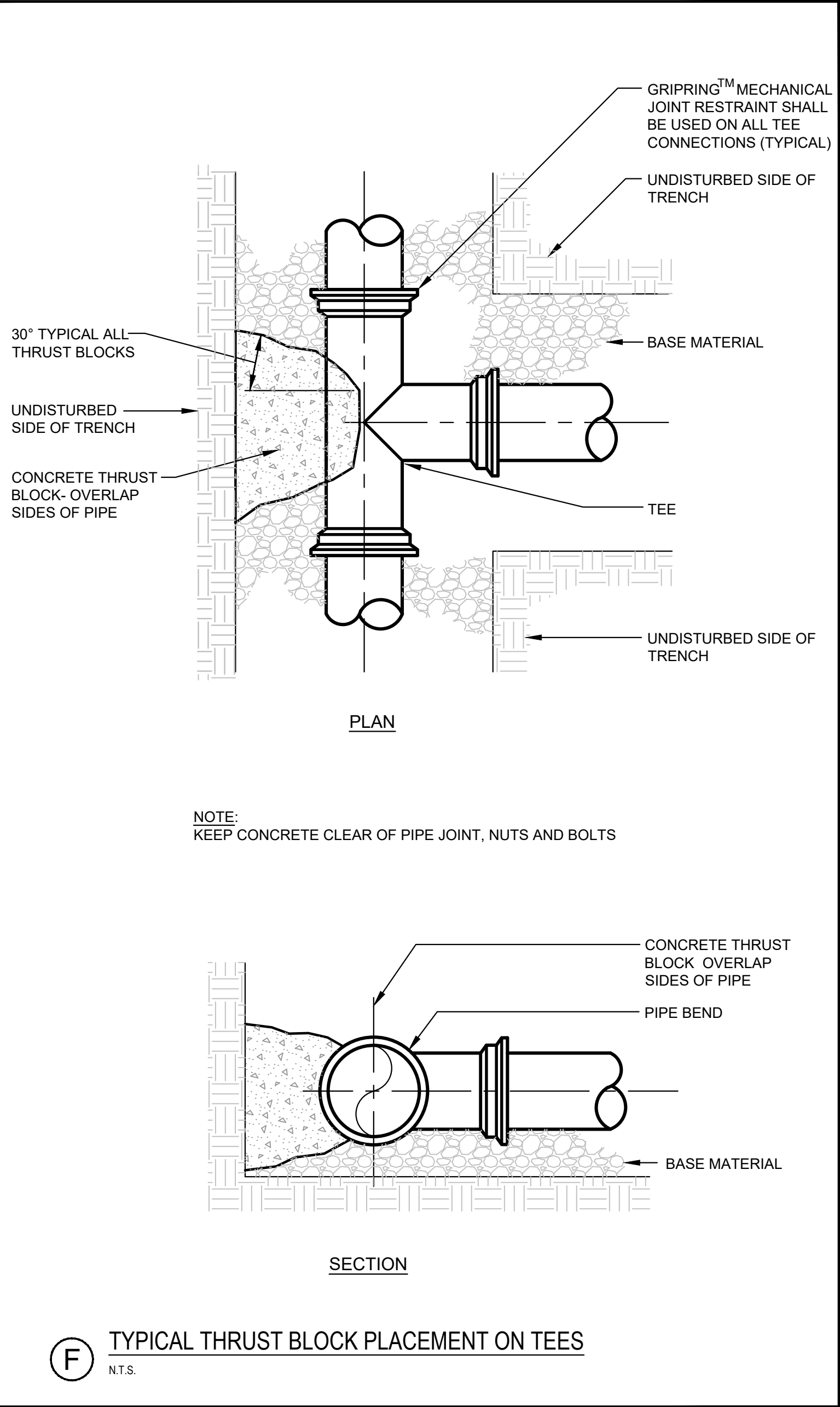
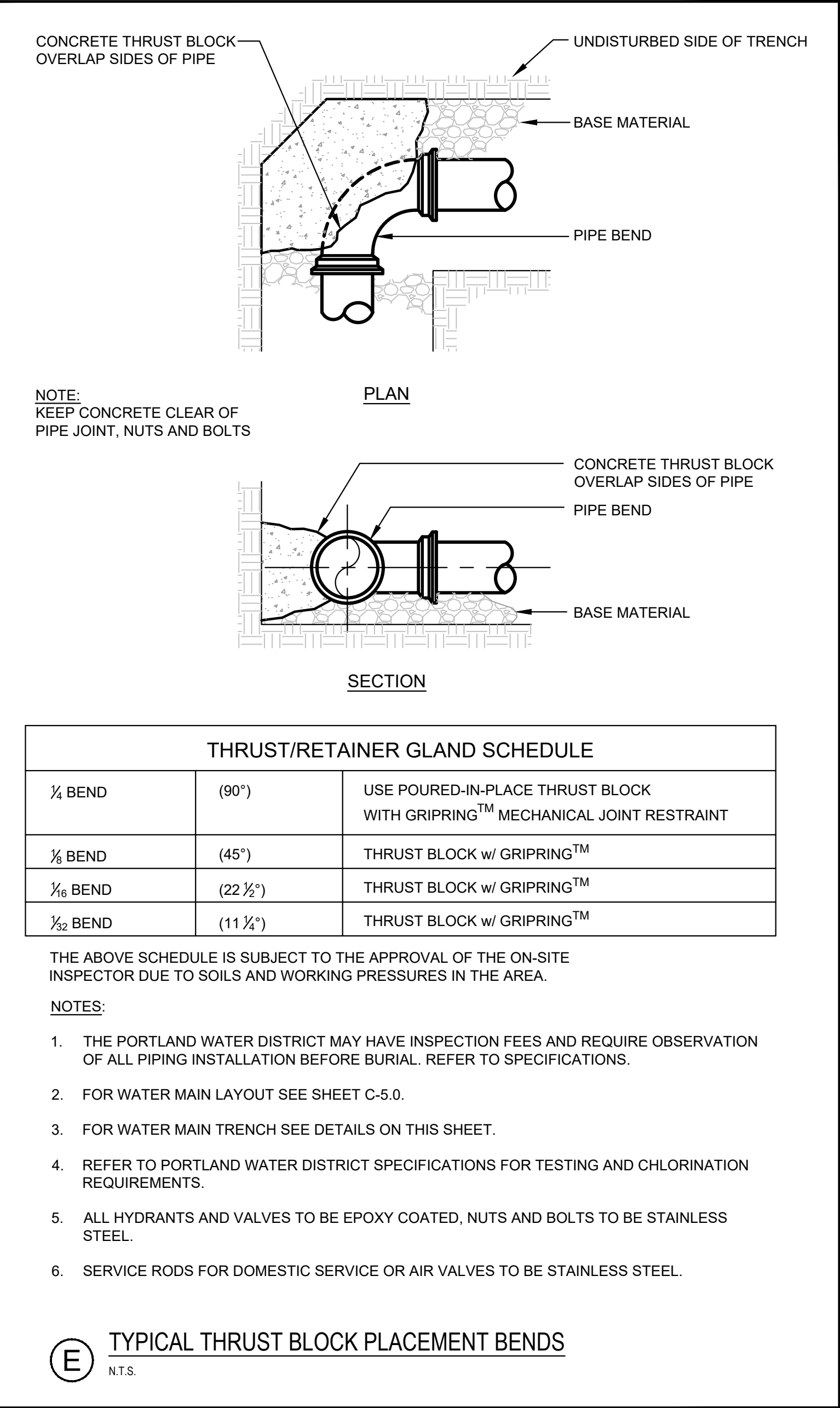
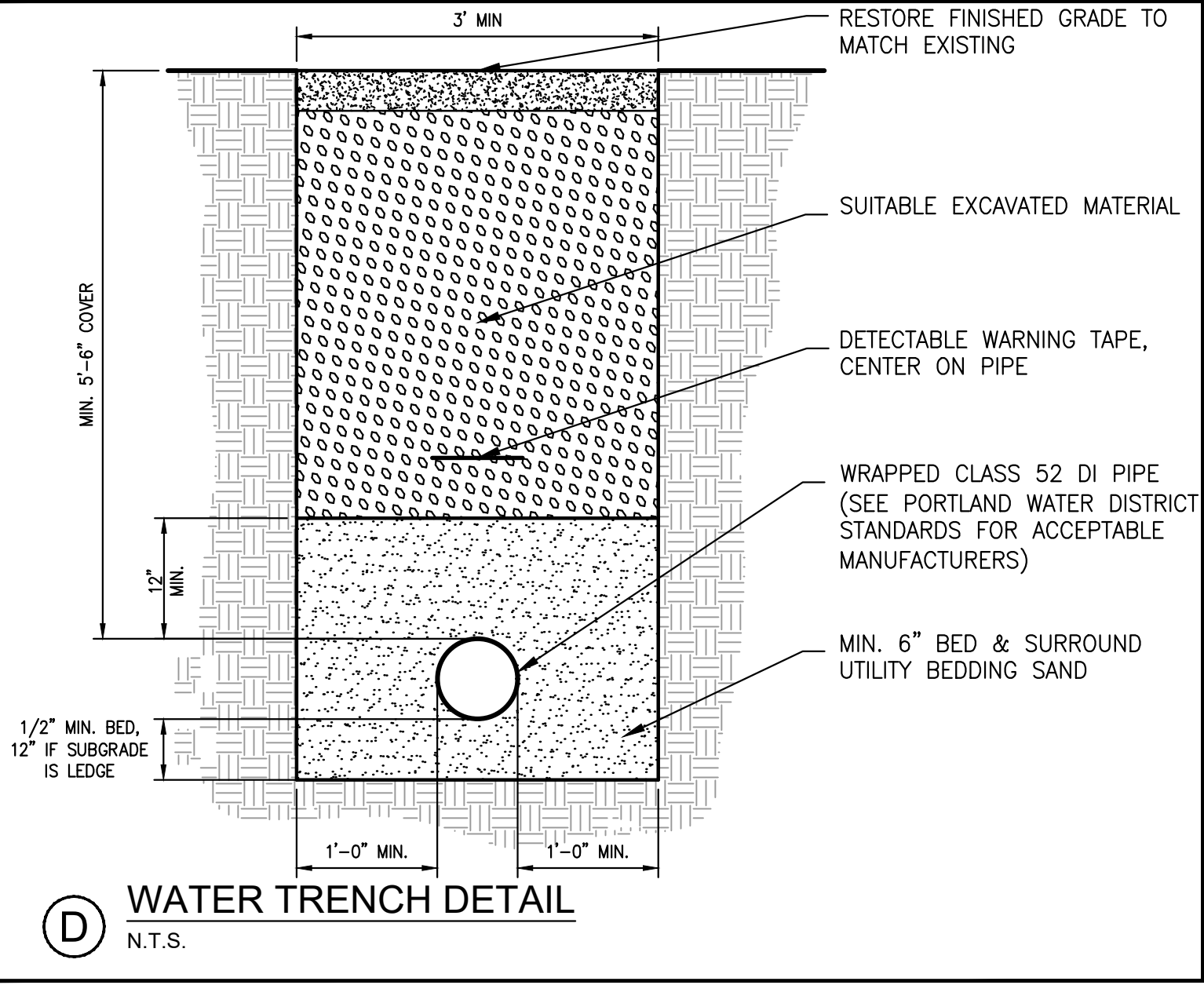
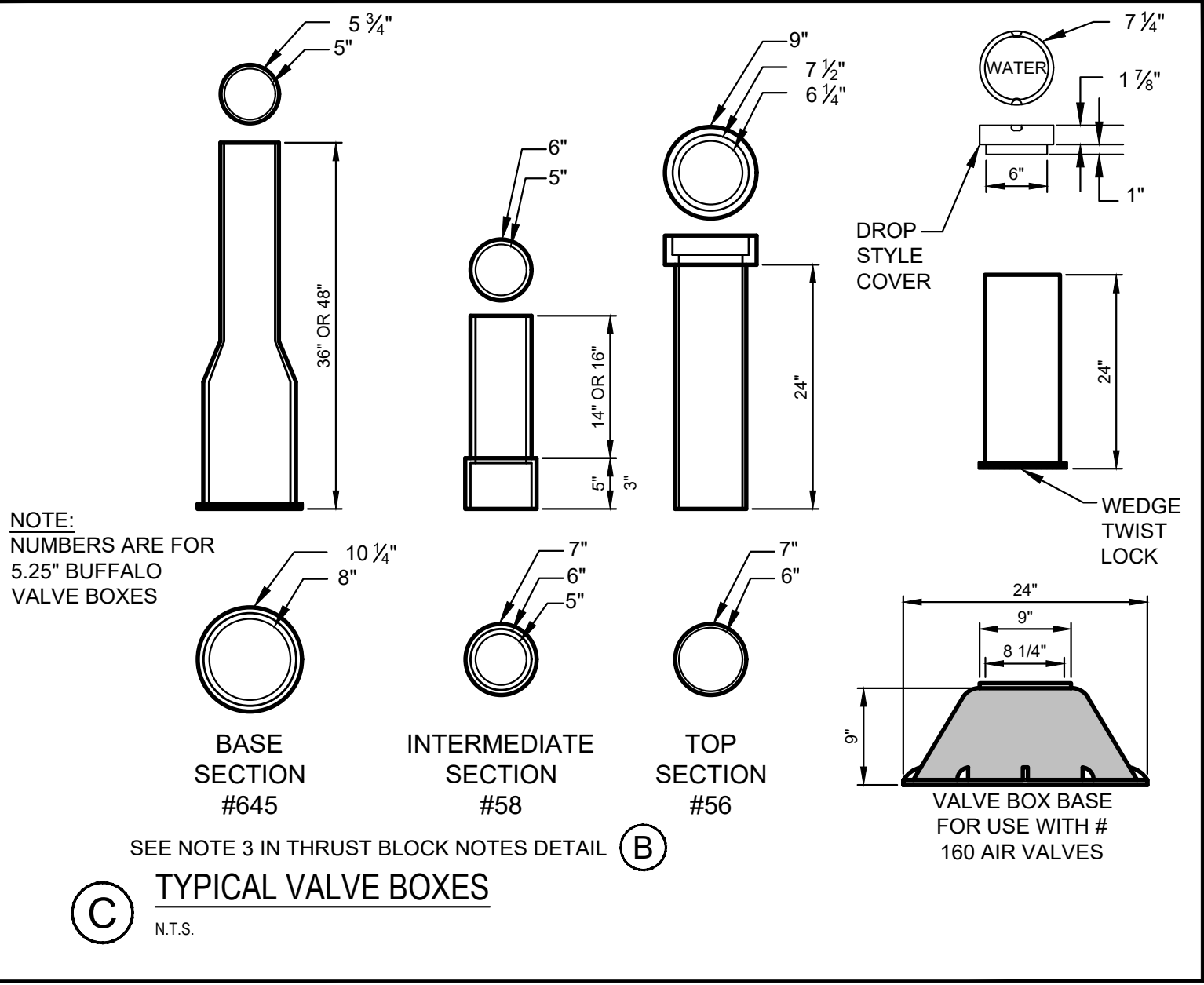
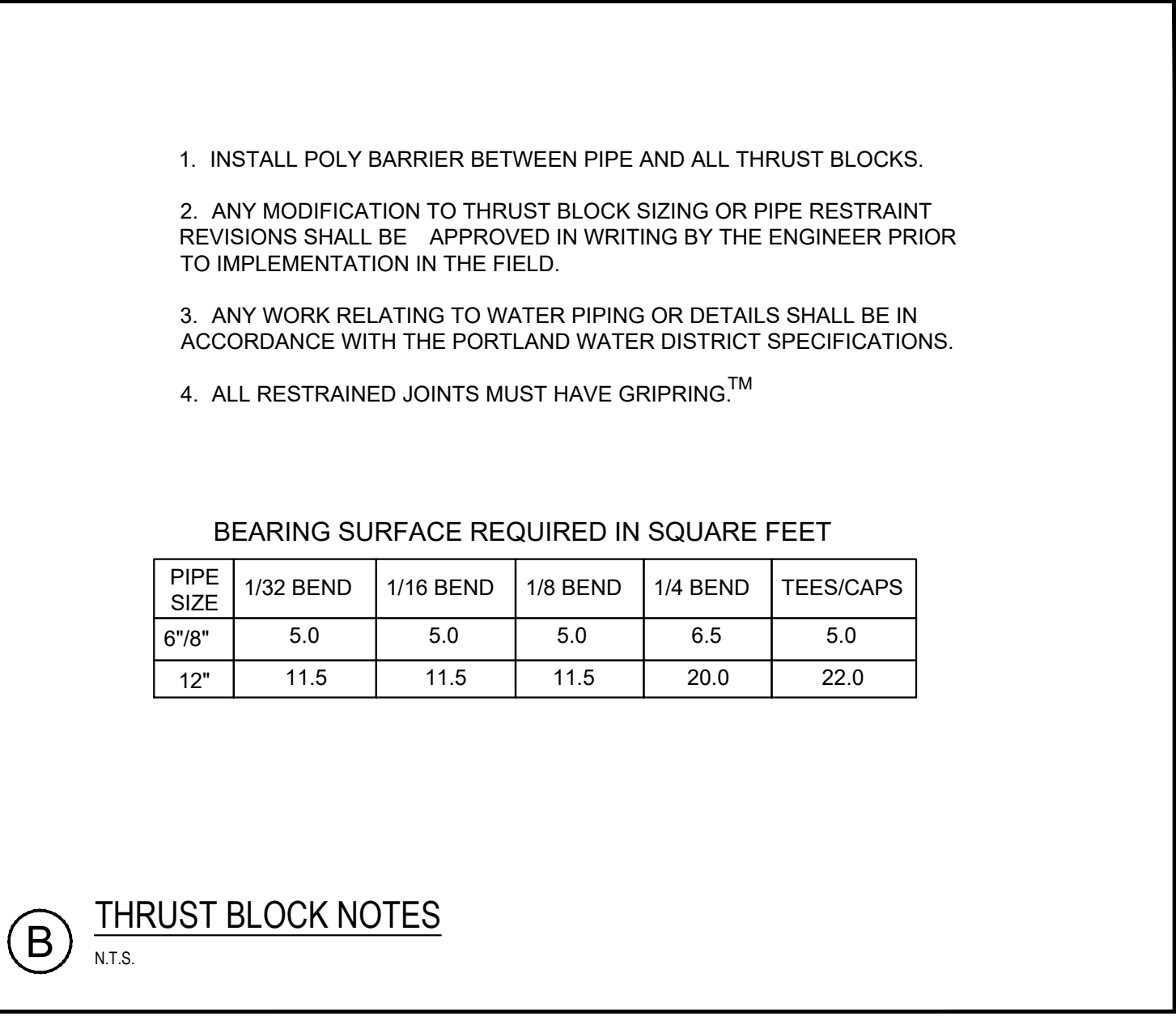
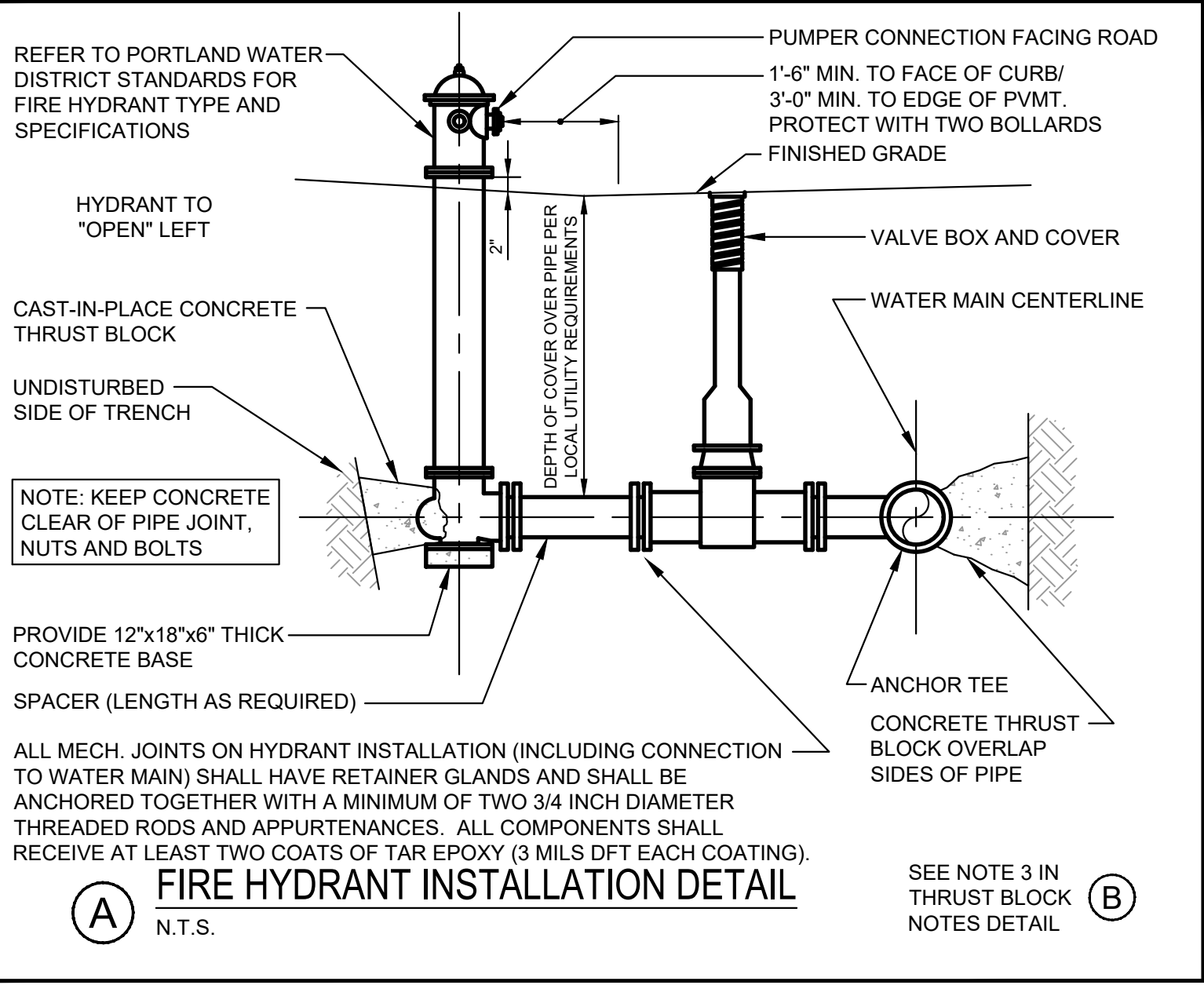
Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

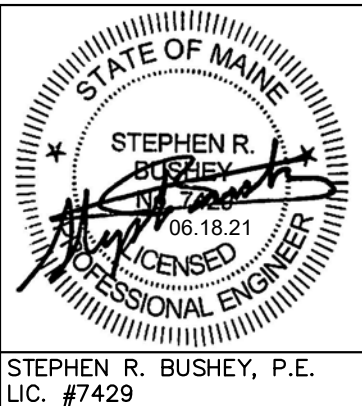
Drawing No.

C-8.2

U:\3824.01-Portland Homeless Center-Developer Collaborative-Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 6/21/2021 11:14 AM



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



Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		

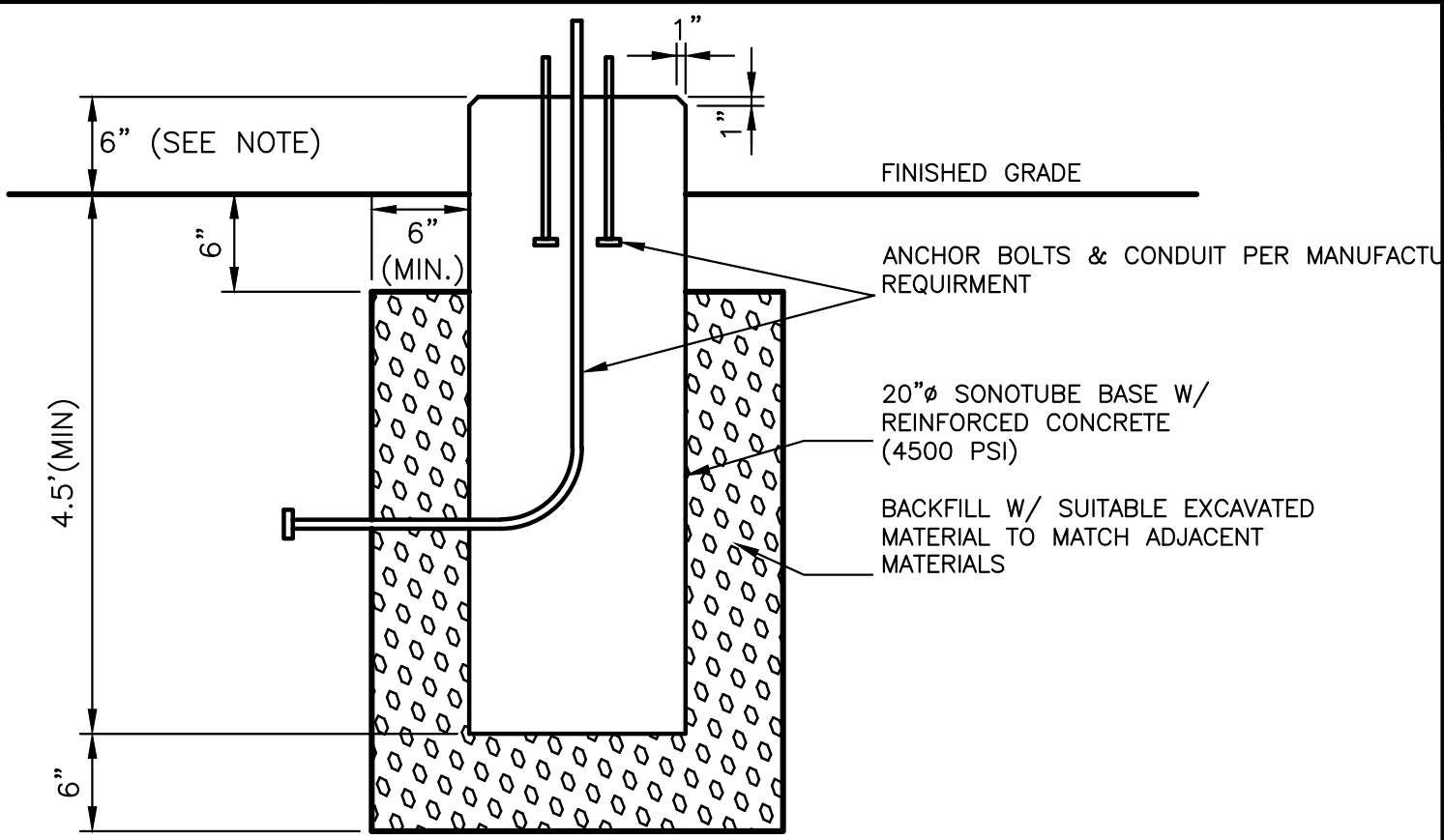


Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

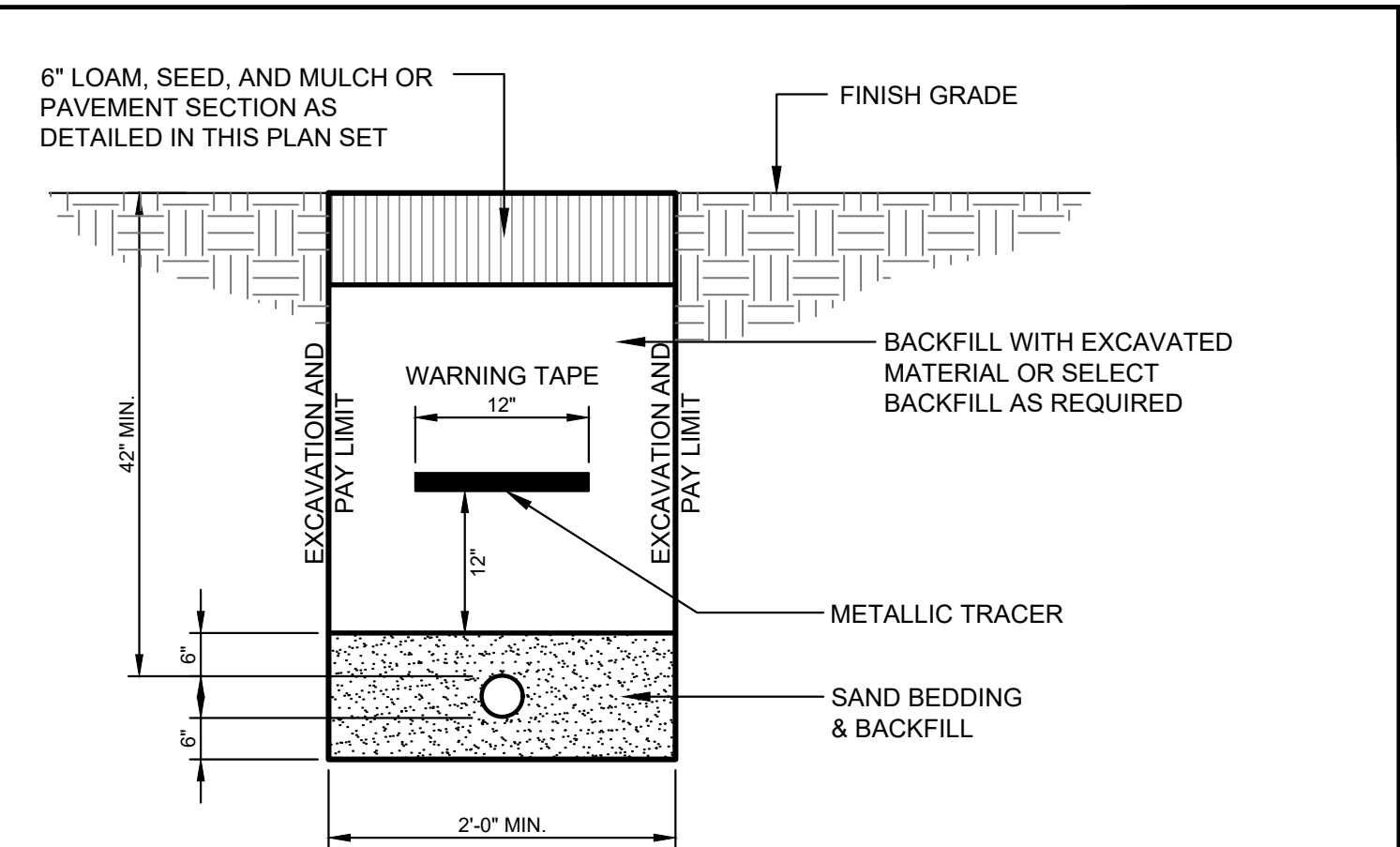
Drawing No.
C-8.3

U:\3824.01-Portland Homeless Center-Developer Collaborative-Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 6/21/2021 11:14 AM



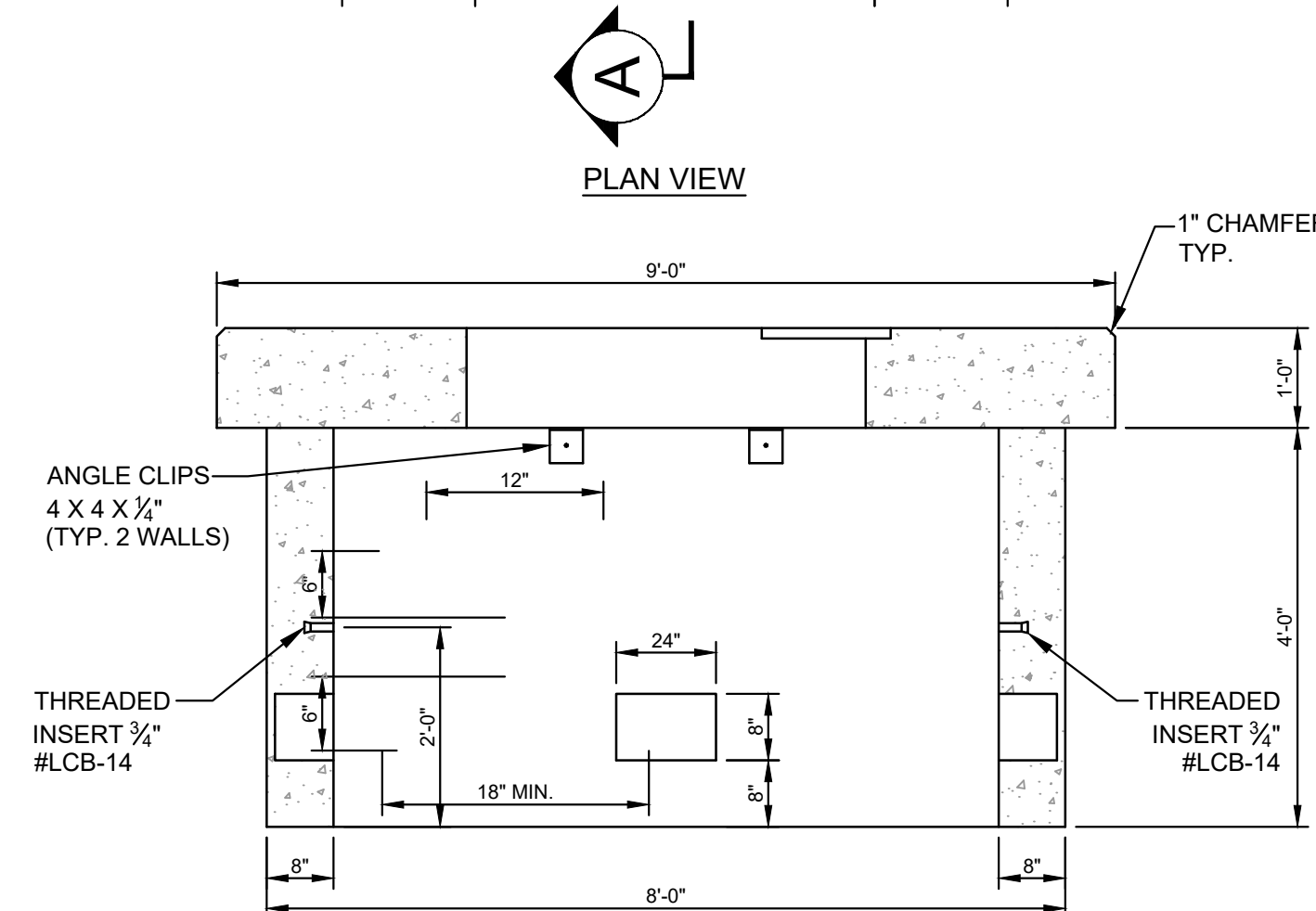
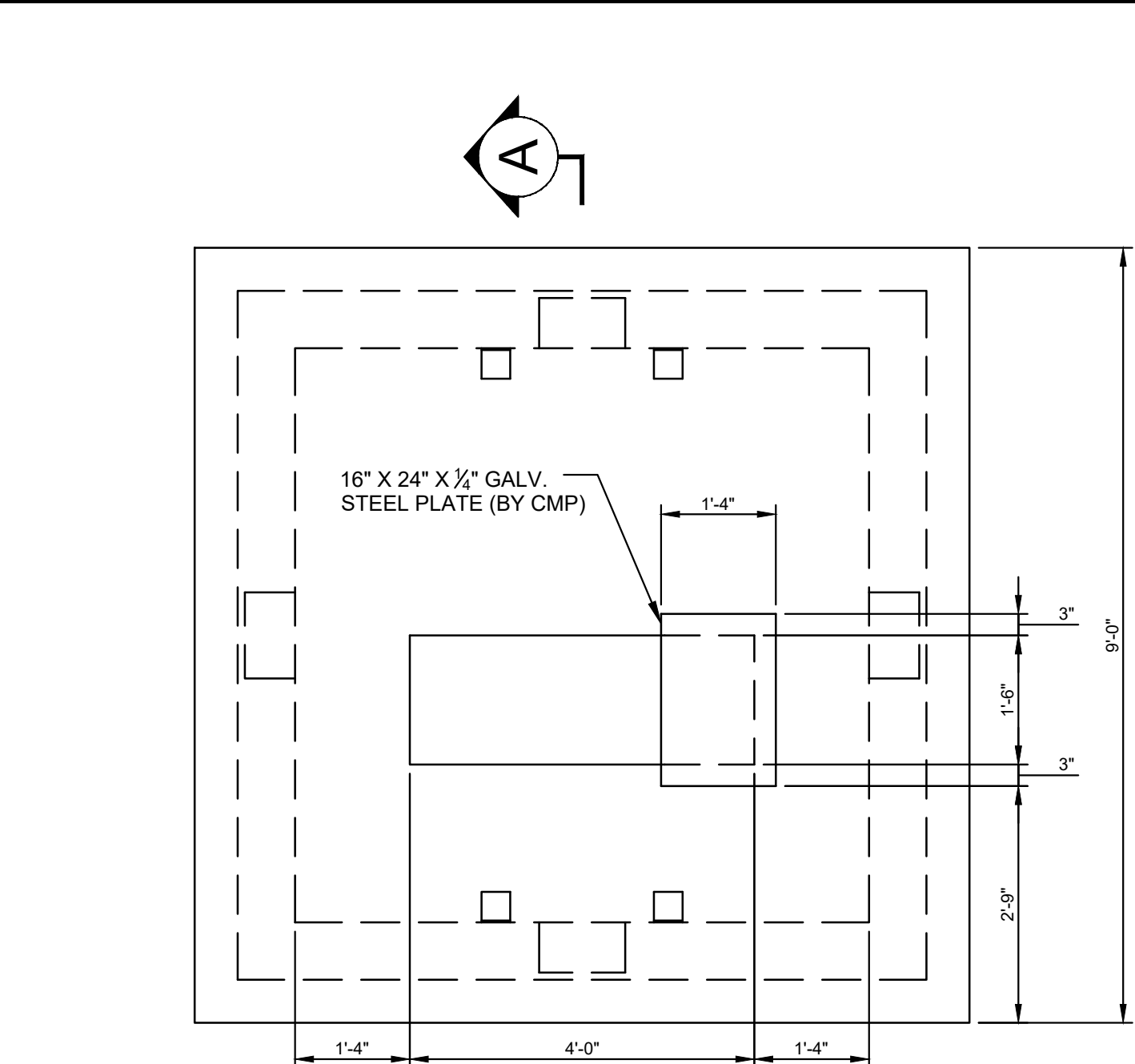
- NOTES:
1. ALL LIGHT POLE BASES TO BE SET 6" ABOVE GRADE (MINIMUM) AND LIGHT BOLLARD BASES SHALL BE SET 3" ABOVE GRADE, OR AS DESCRIBED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL CONFIRM PRIOR TO ANY POLE INSTALLATIONS.
 2. BASE SIZE TO BE CONFIRMED WITH THE LIGHT POLE SUPPLIER.

(A) TYPICAL PARKING LOT LIGHTING POLE FOUNDATION
N.T.S.

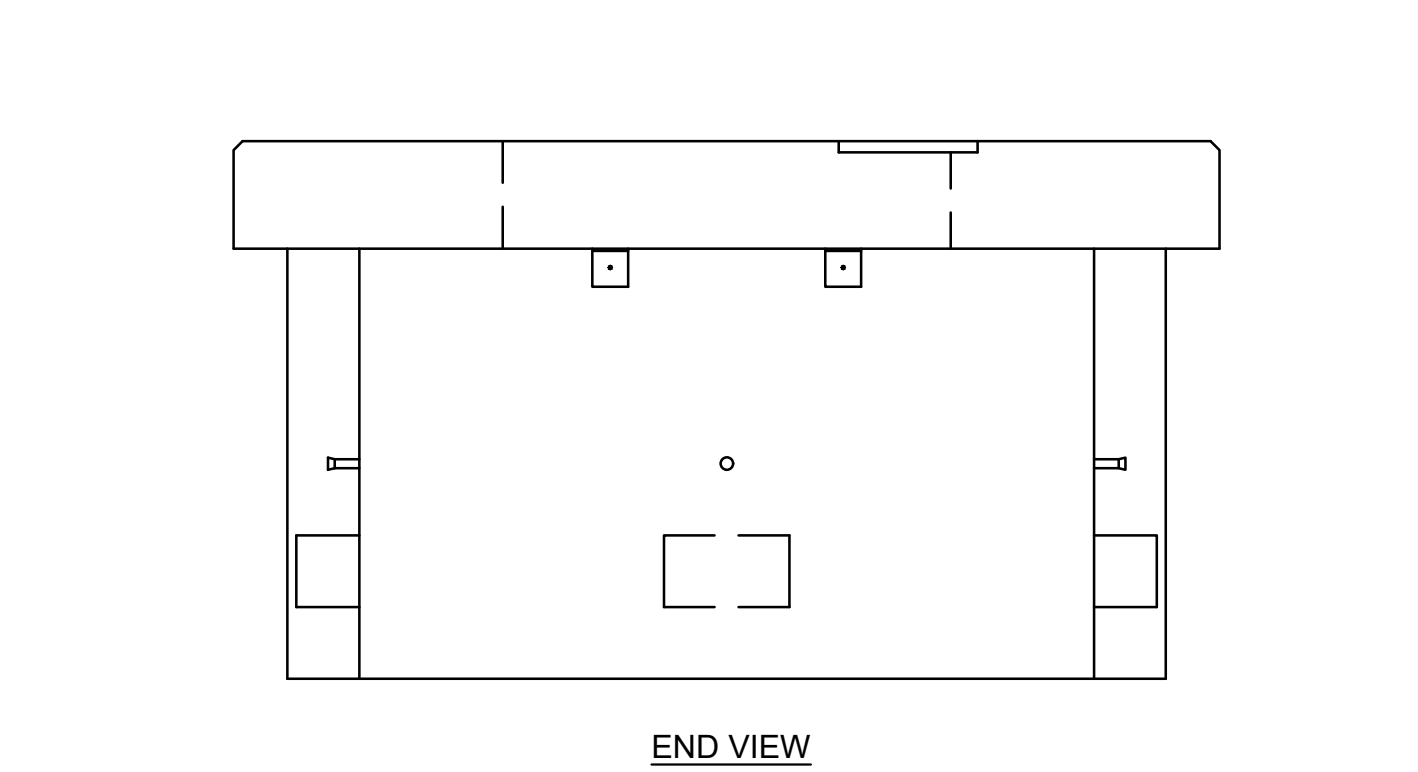


NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

(E) GAS SERVICE TRENCH SECTION
N.T.S.

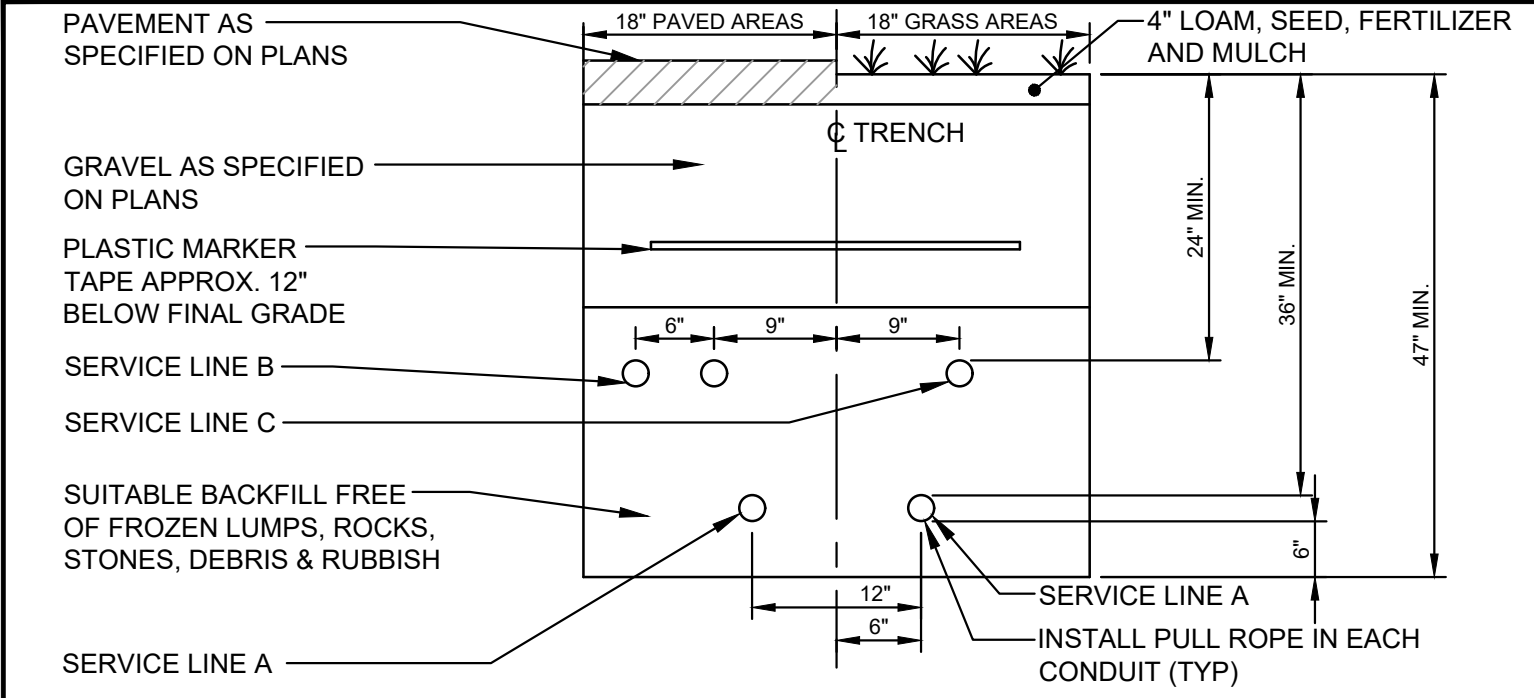


(B) 9'-0" TRANSFORMER PAD
N.T.S.



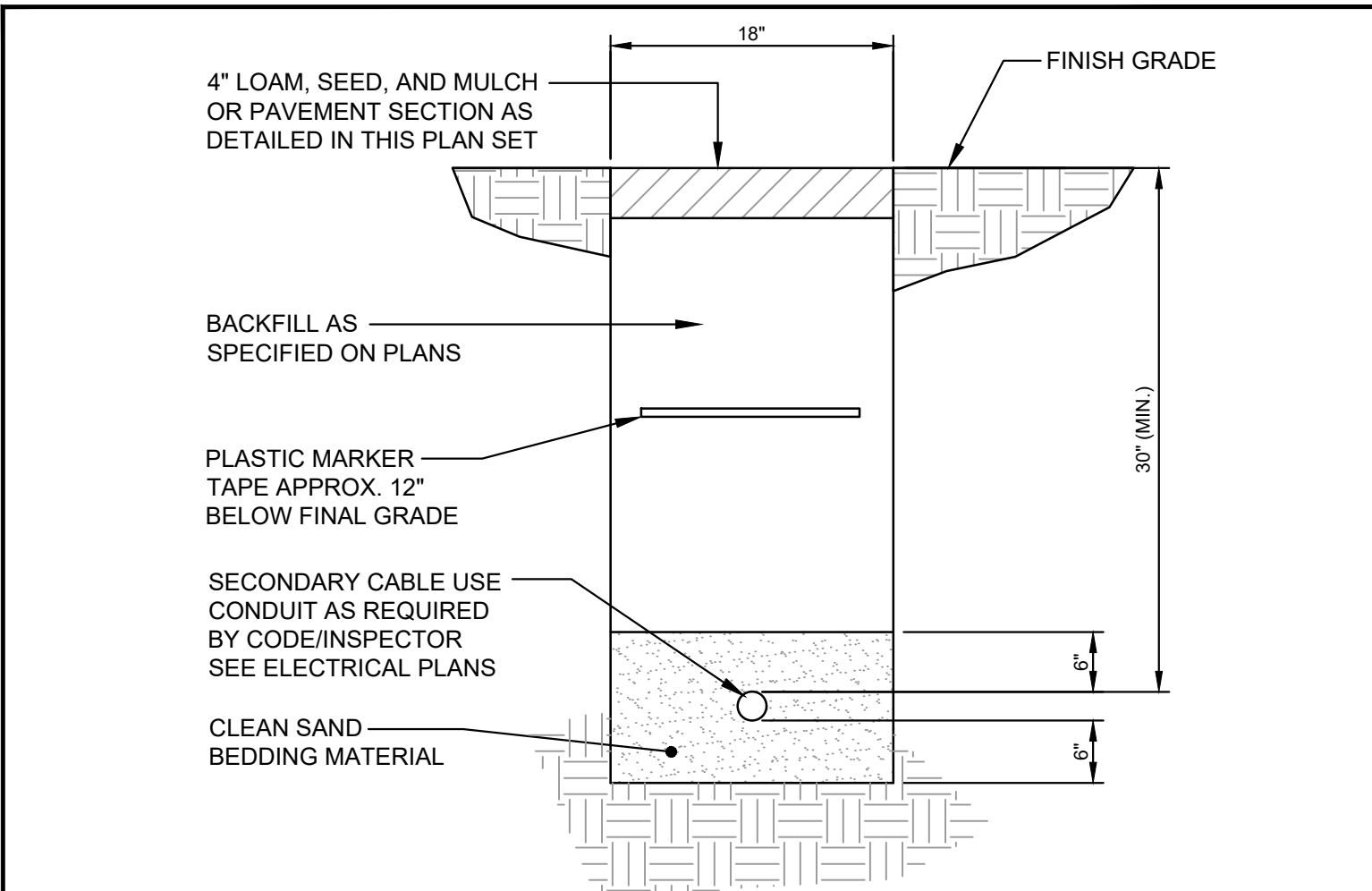
- NOTES:
1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT.
 2. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS, AS MANUFACTURED BY SUPERIOR CONCRETE OR EQUAL.
 3. FINAL SIZING TO BE BY ELECTRICAL DESIGNER.
 4. ONE 8" x 24" KNOCKOUT PROVIDED EACH WALL.
 5. FOR 750 - 5000 KVA THREE PHASE TRANSFORMER.
 6. FINISH GRADE SHALL BE GRADED TO ALLOW SURFACE WATER TO FLOW AWAY FROM THE PAD.

(B) 9'-0" TRANSFORMER PAD
N.T.S.

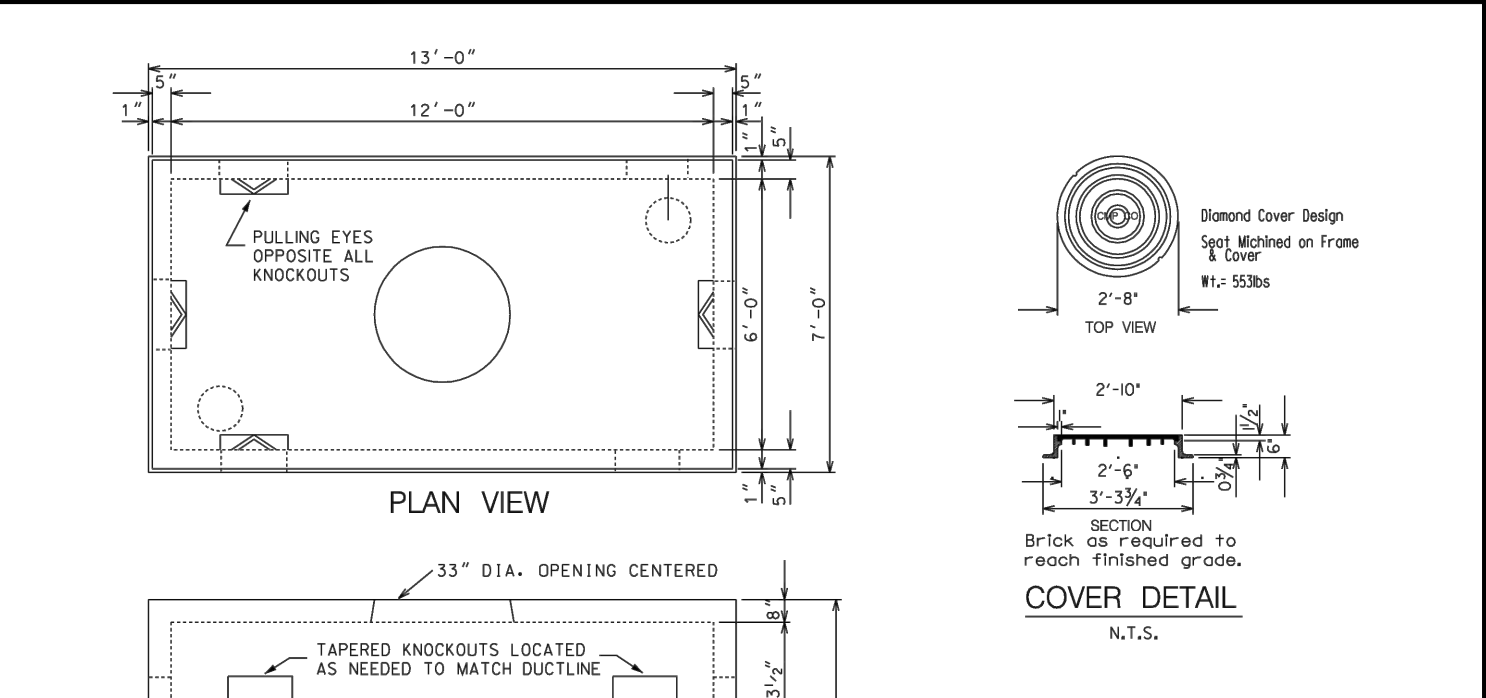


- NOTES:
1. FOR CONDUIT TYPES AND SIZES SEE ELECTRICAL PLAN

(C) UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS
N.T.S.

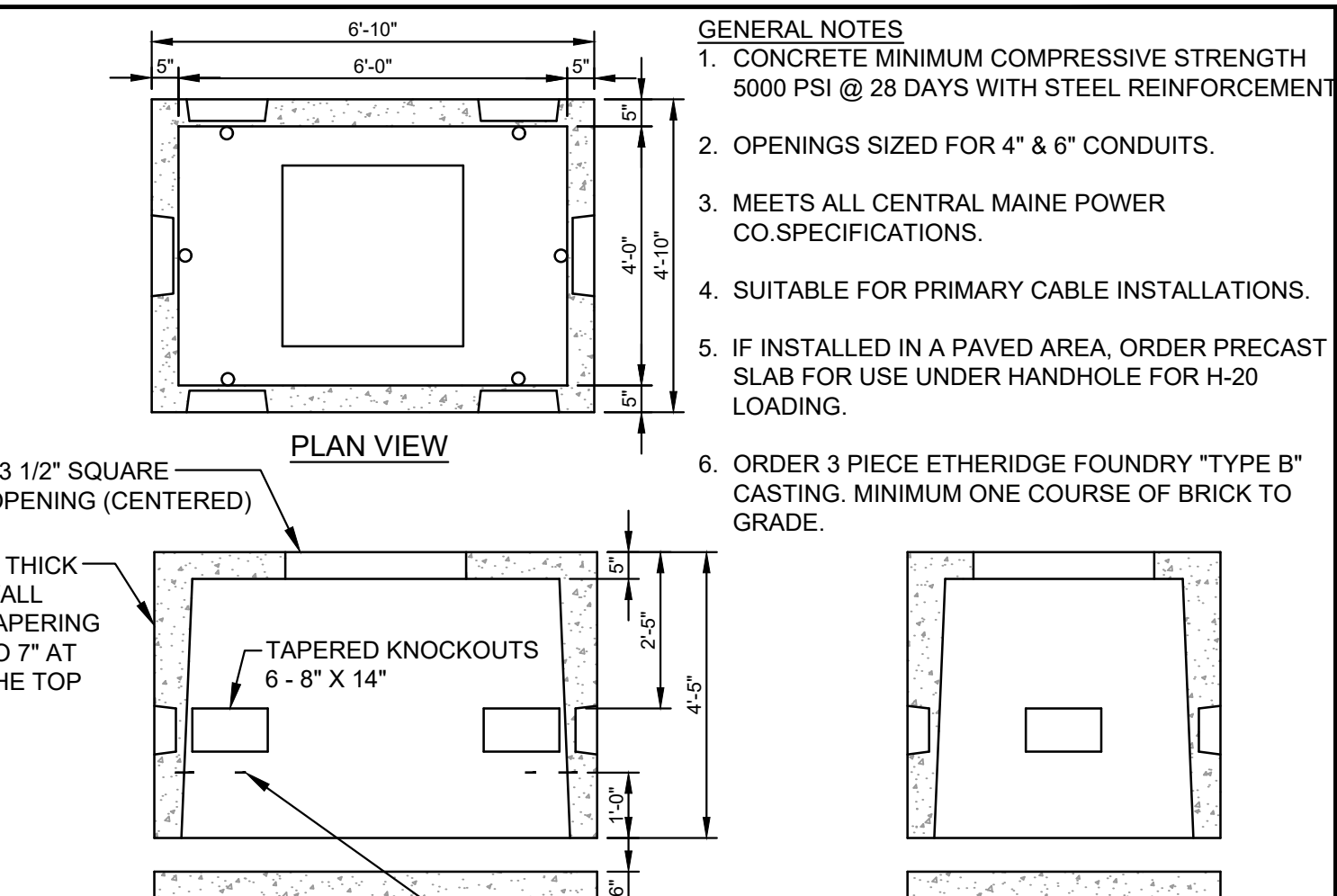


(F) SECONDARY ELECTRICAL TRENCH DETAIL
N.T.S.



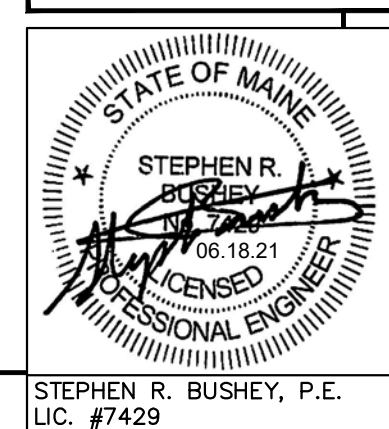
- NOTES:
- 1) Vault shall be designed to withstand H20 wheel loading with 6 inches of overburden. The design shall also comply with the strength requirements of National Electrical Safety Code Section 353A. Provide shop drawings stamped by a State of Maine Registered Professional Engineer upon Request.
 - 2) Joints sealed with asphalt.
 - 3) Mountings for cable racks etc. cast in wall by further plans or field located.
 - 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.



(G) SPLICE BOX DETAIL
N.T.S.

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



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

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



GORRIIL PALMER

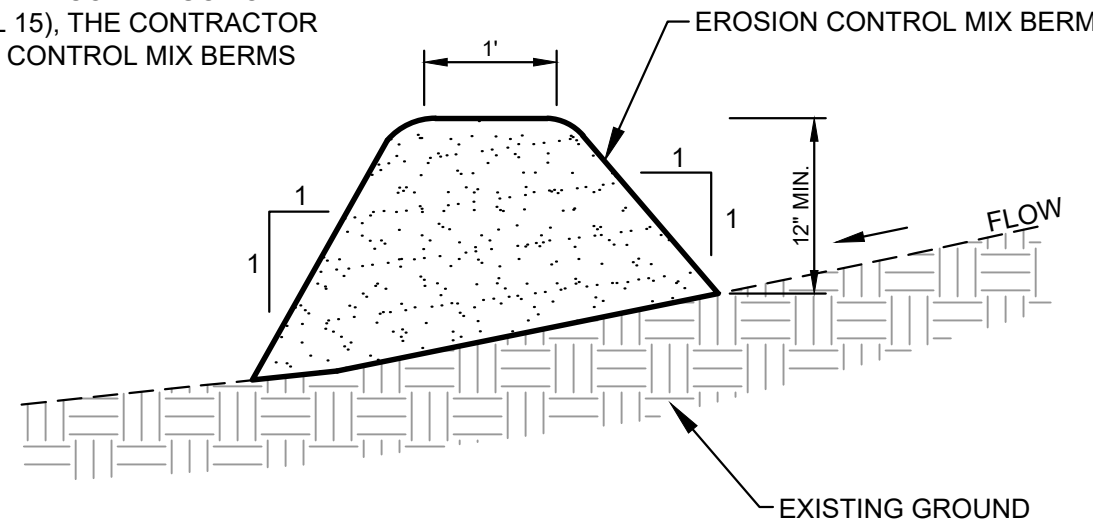
Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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
-------------	-------

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-DETAILS.dwg - 6/21/2021 11:15 AM

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.

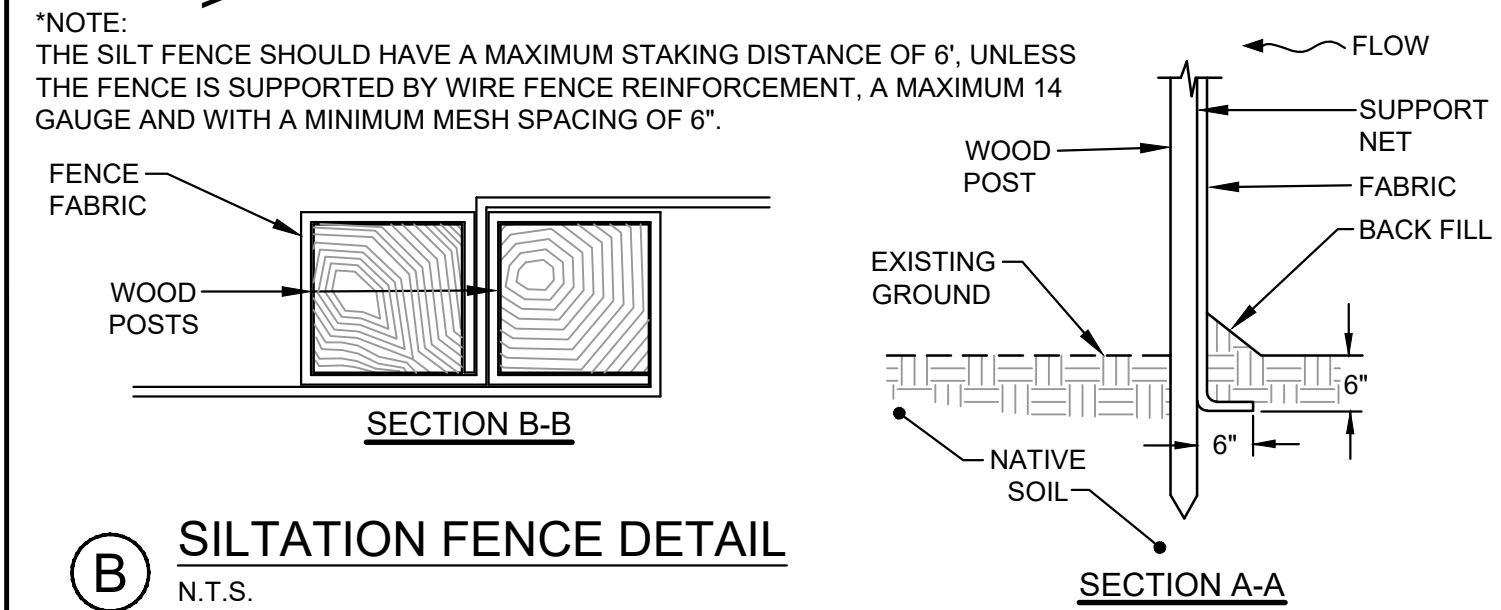
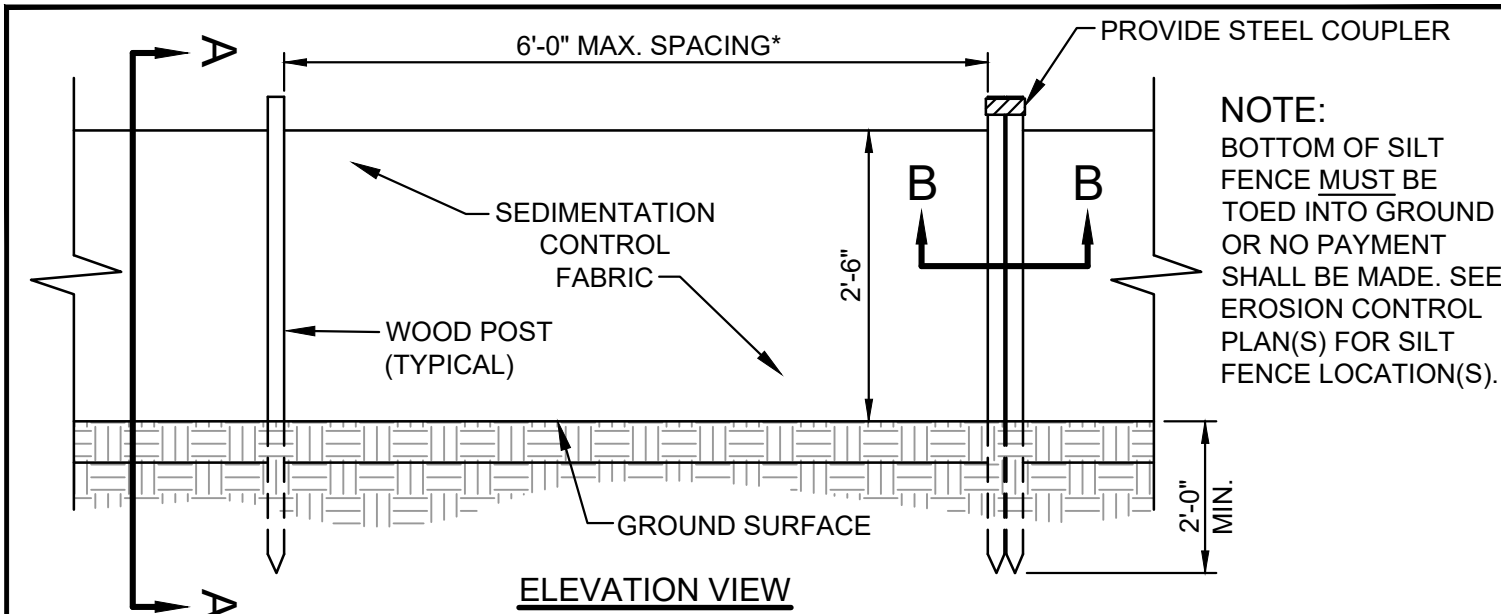


EROSION CONTROL MIX:

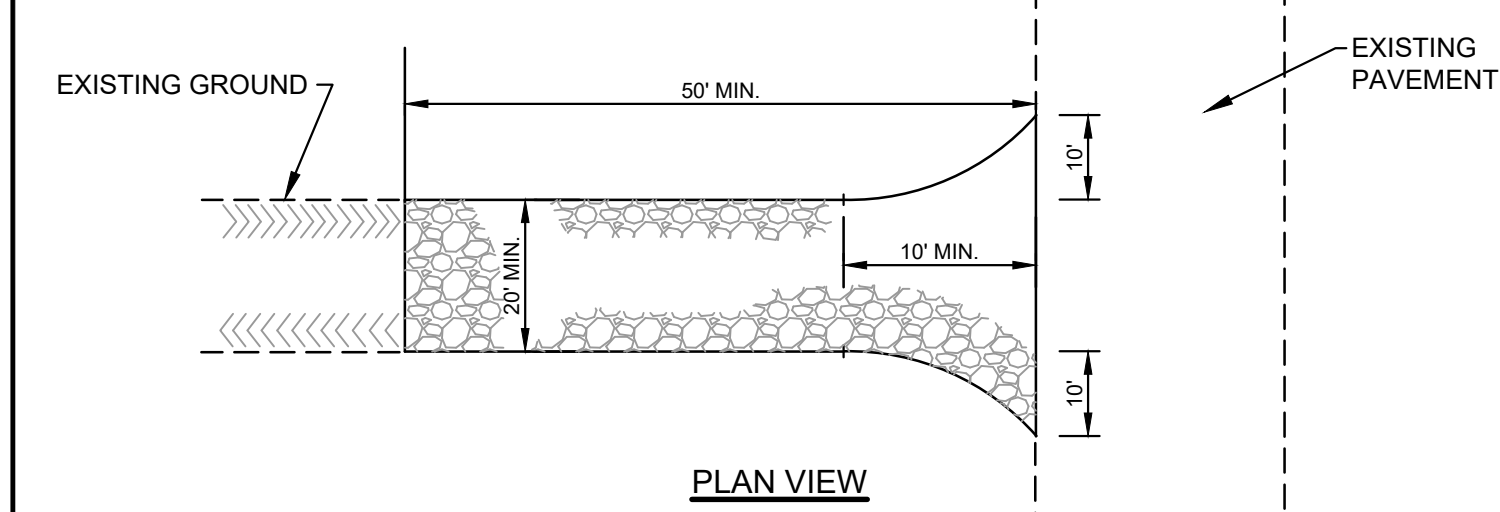
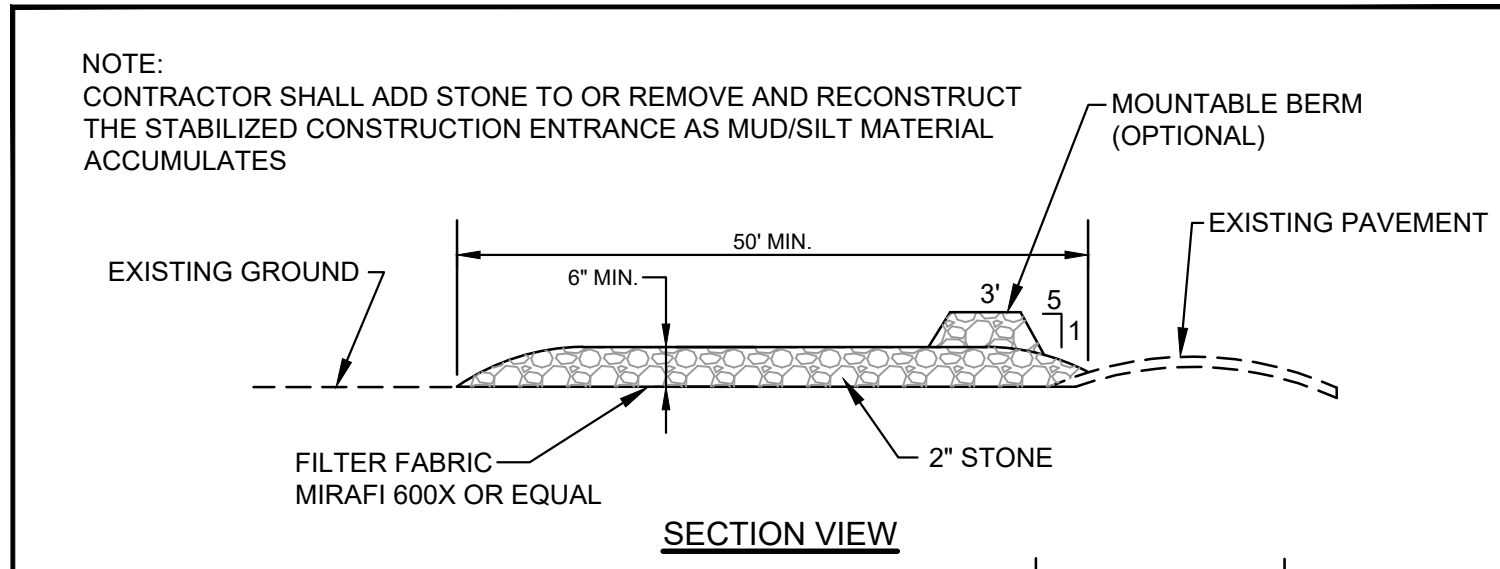
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- 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.

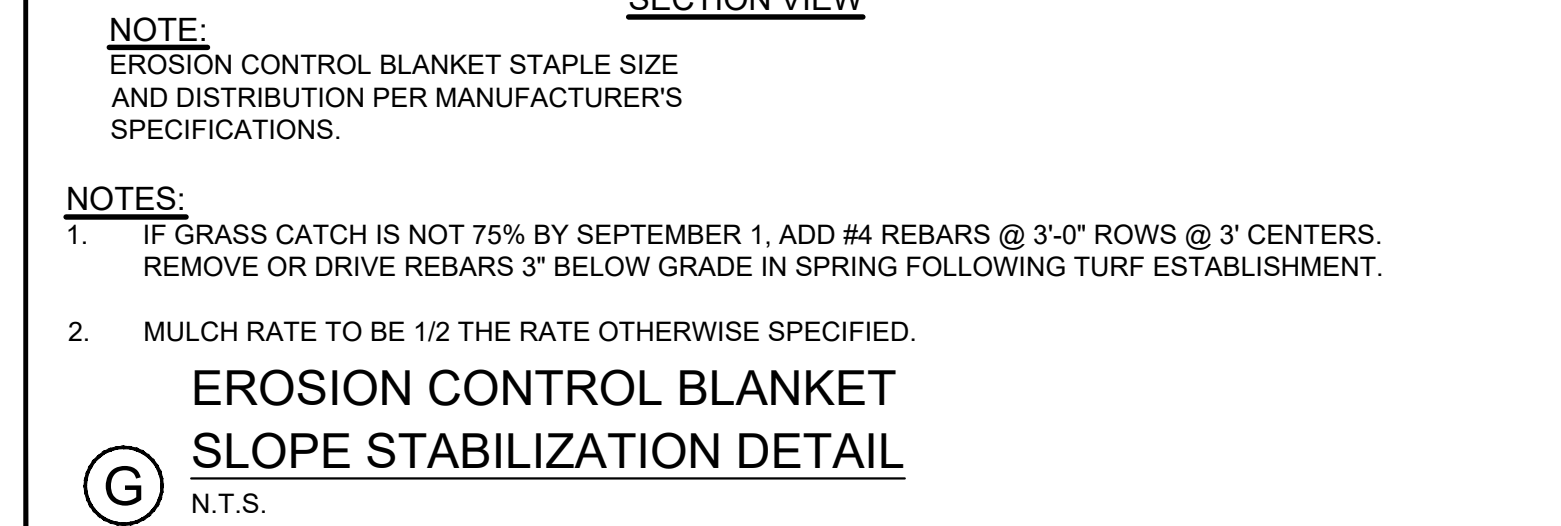
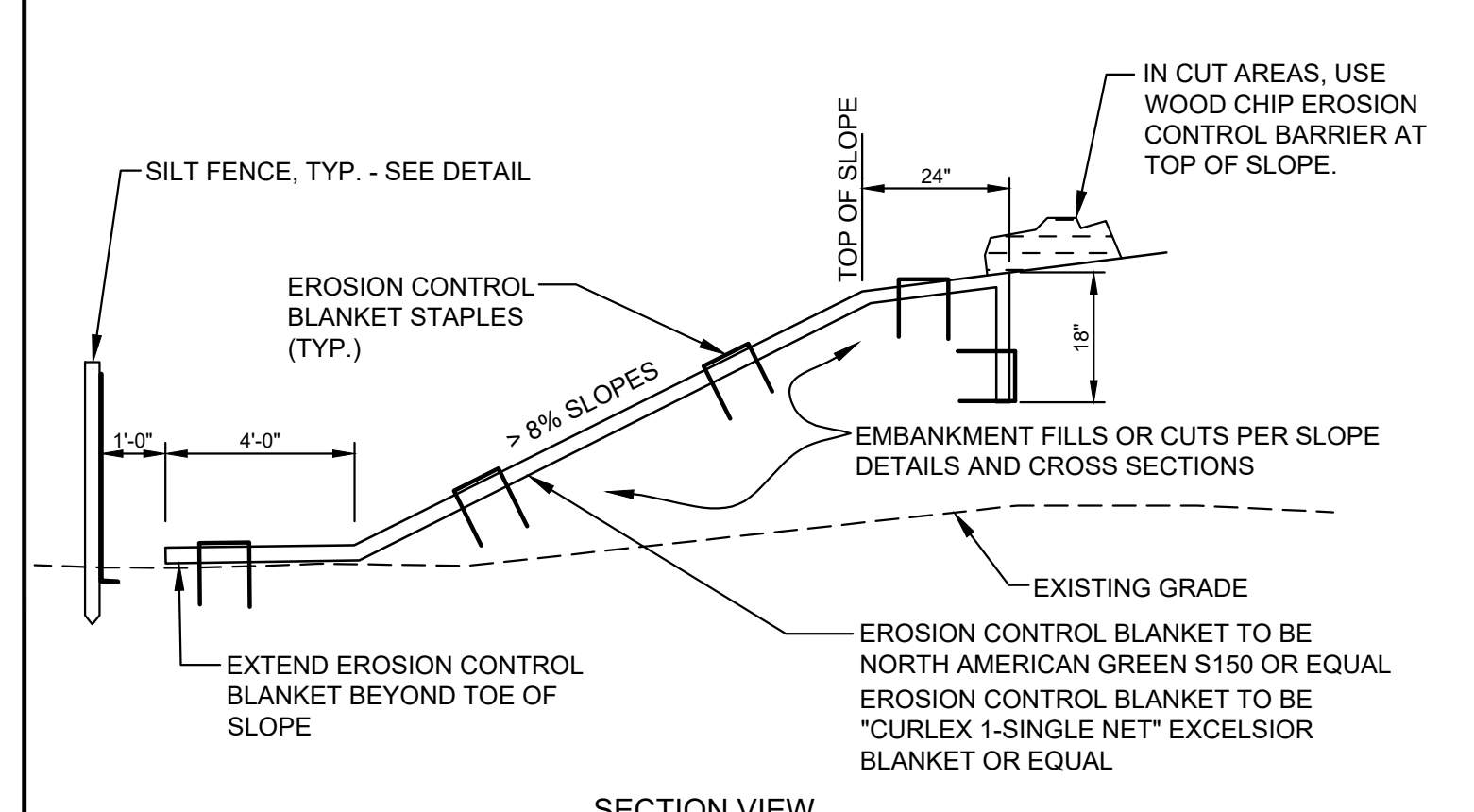
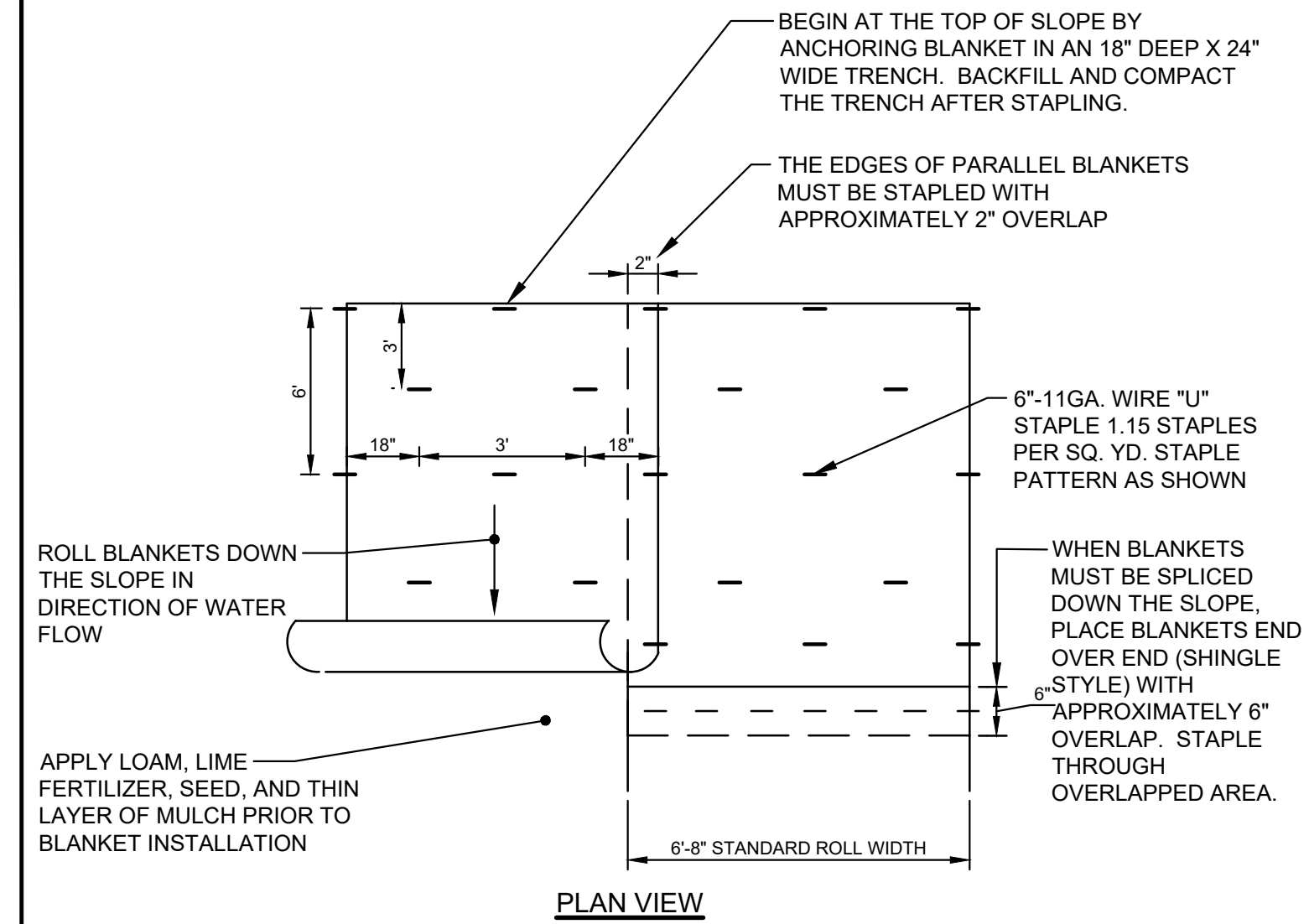
A EROSION CONTROL MIX BERM DETAIL N.T.S.



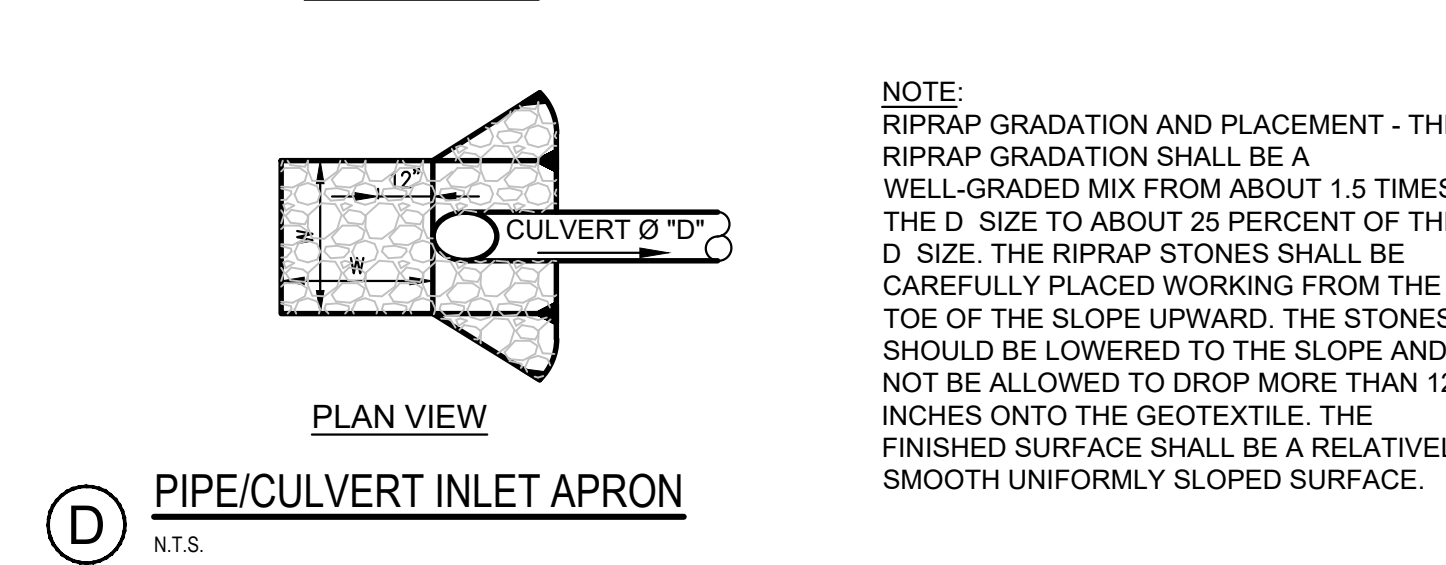
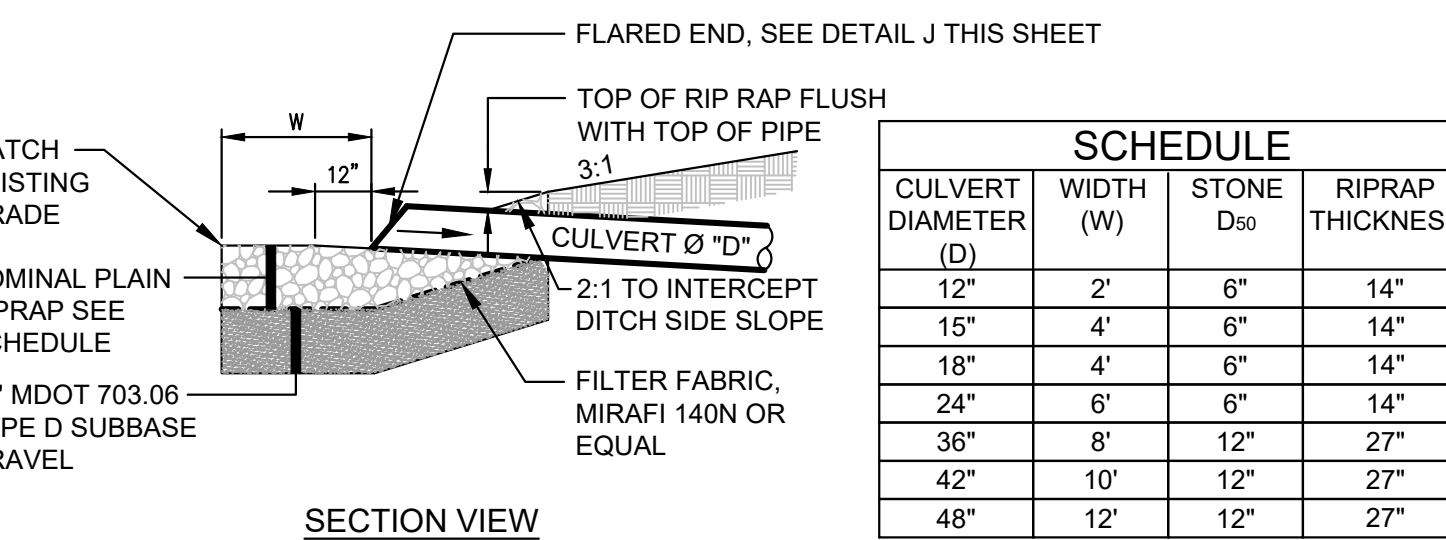
B SILTATION FENCE DETAIL N.T.S.



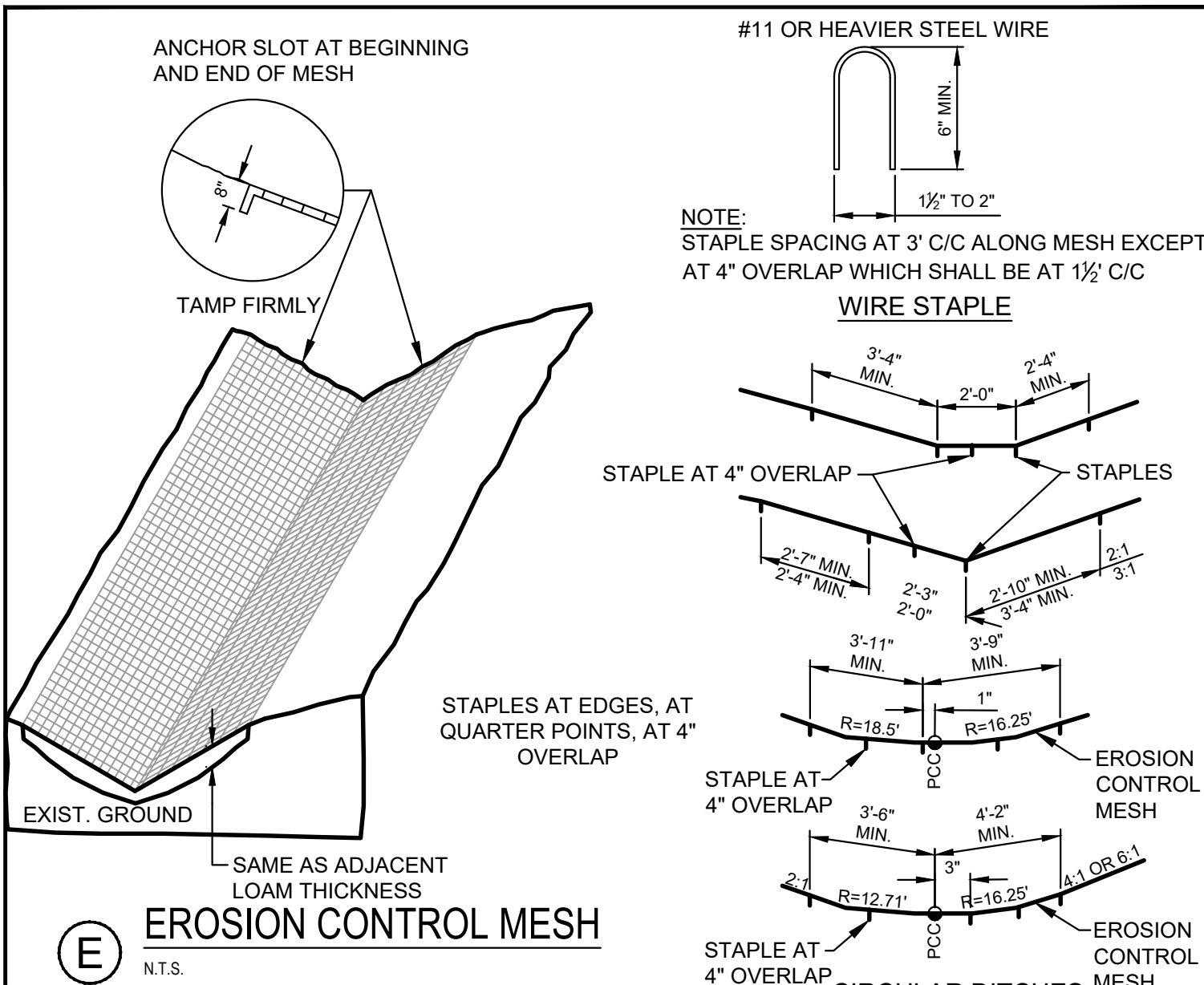
C STABILIZED CONSTRUCTION ENTRANCE DETAIL N.T.S.



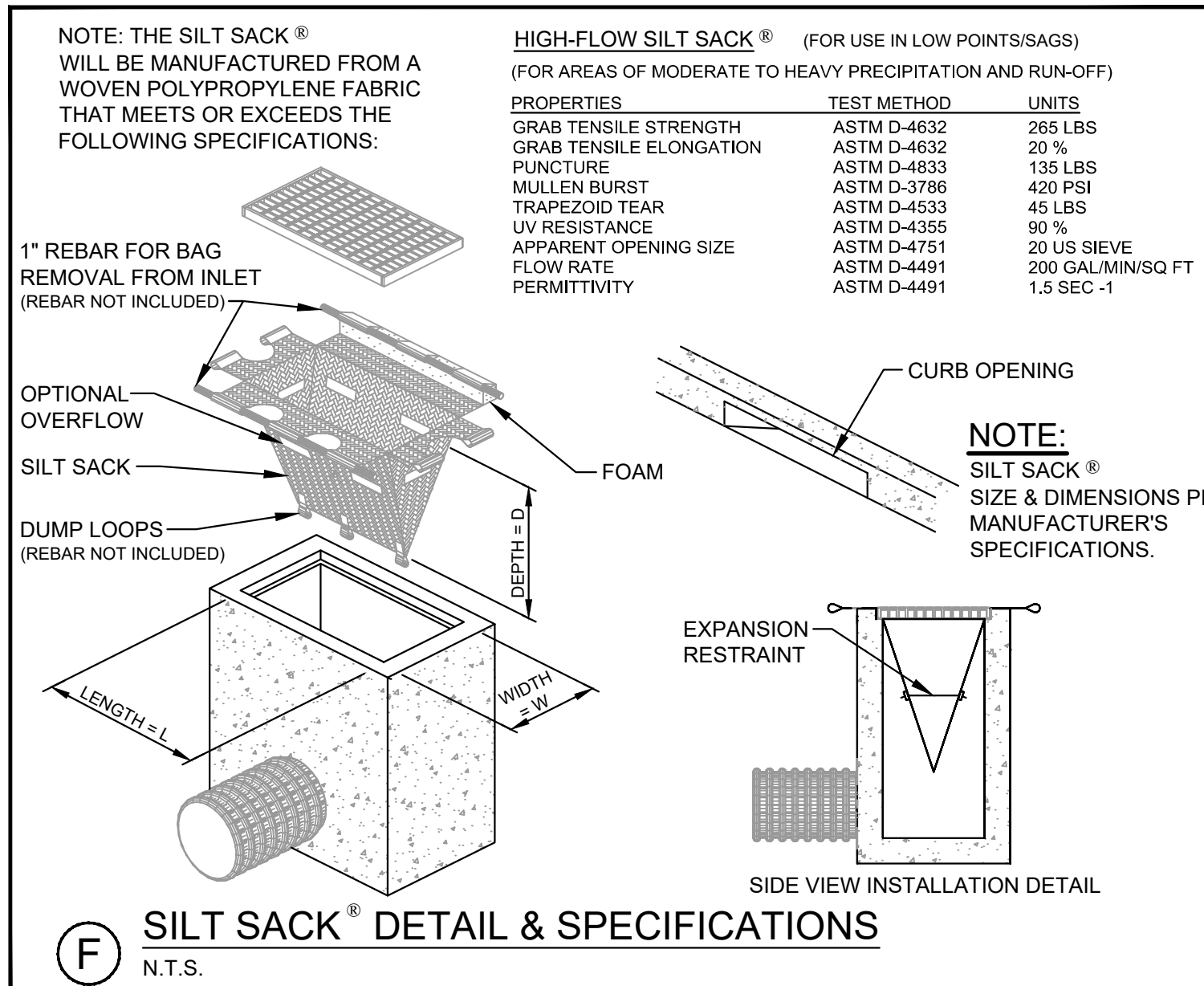
G EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL N.T.S.



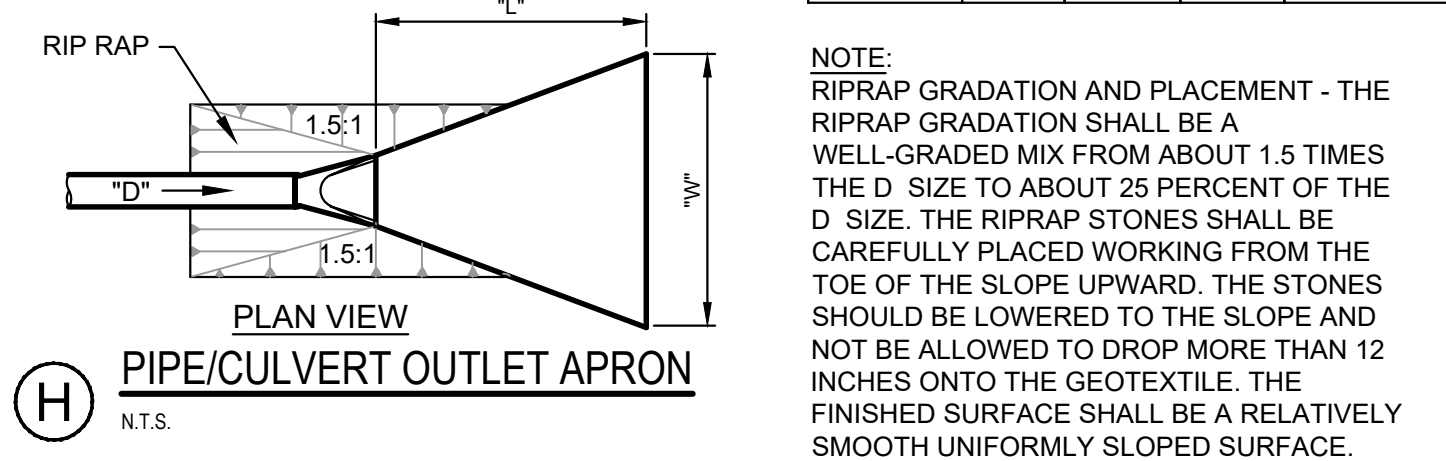
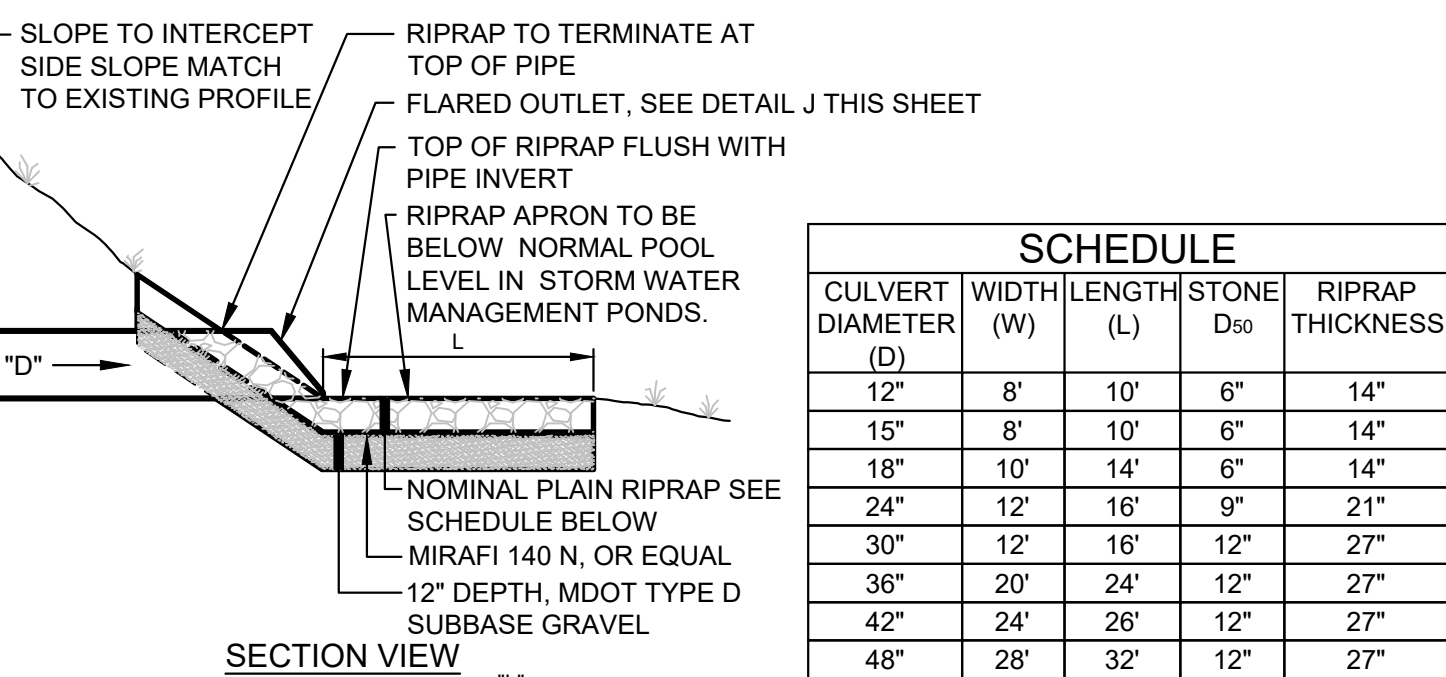
D PIPE/CULVERT INLET APRON N.T.S.



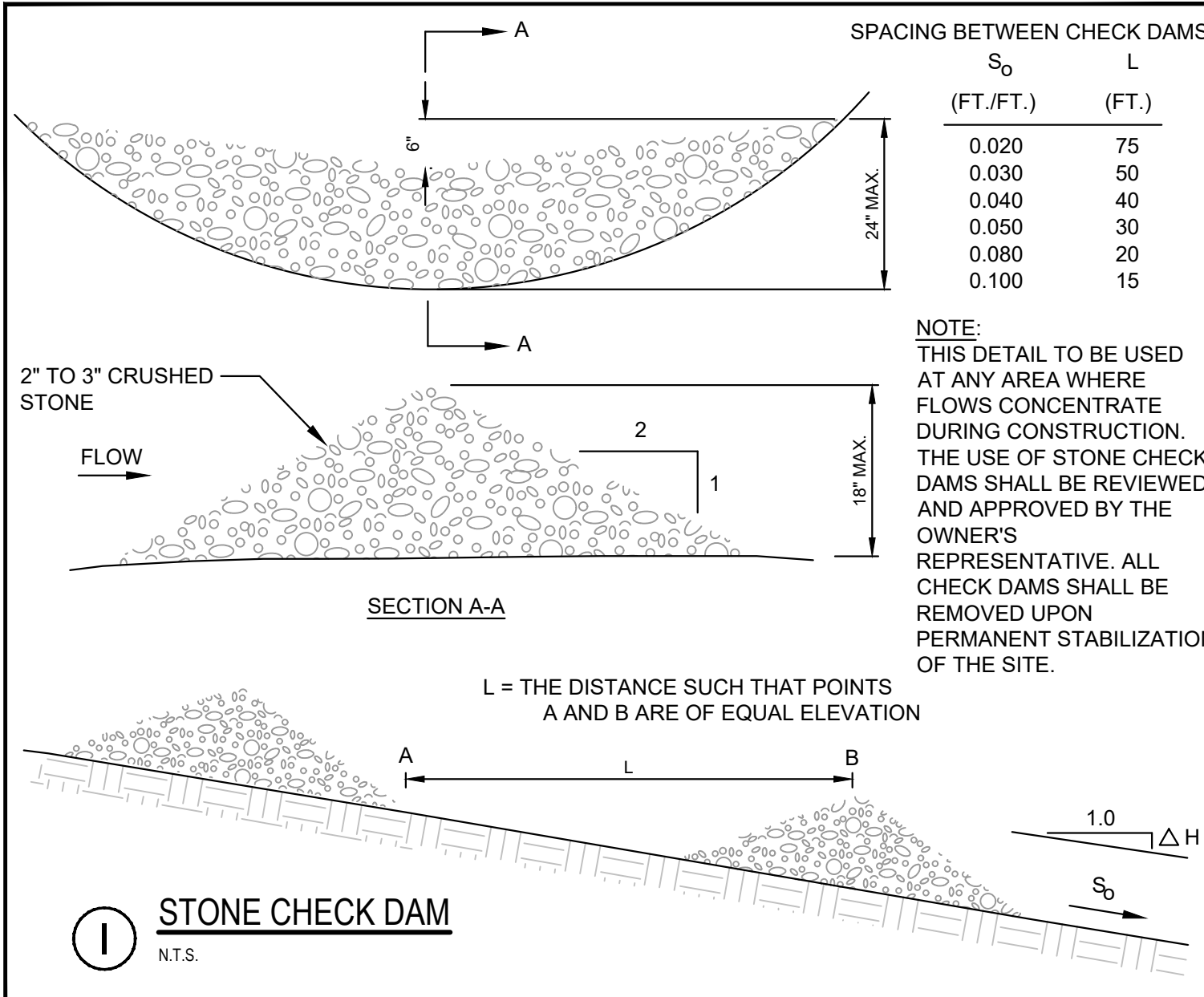
E EROSION CONTROL MESH N.T.S.



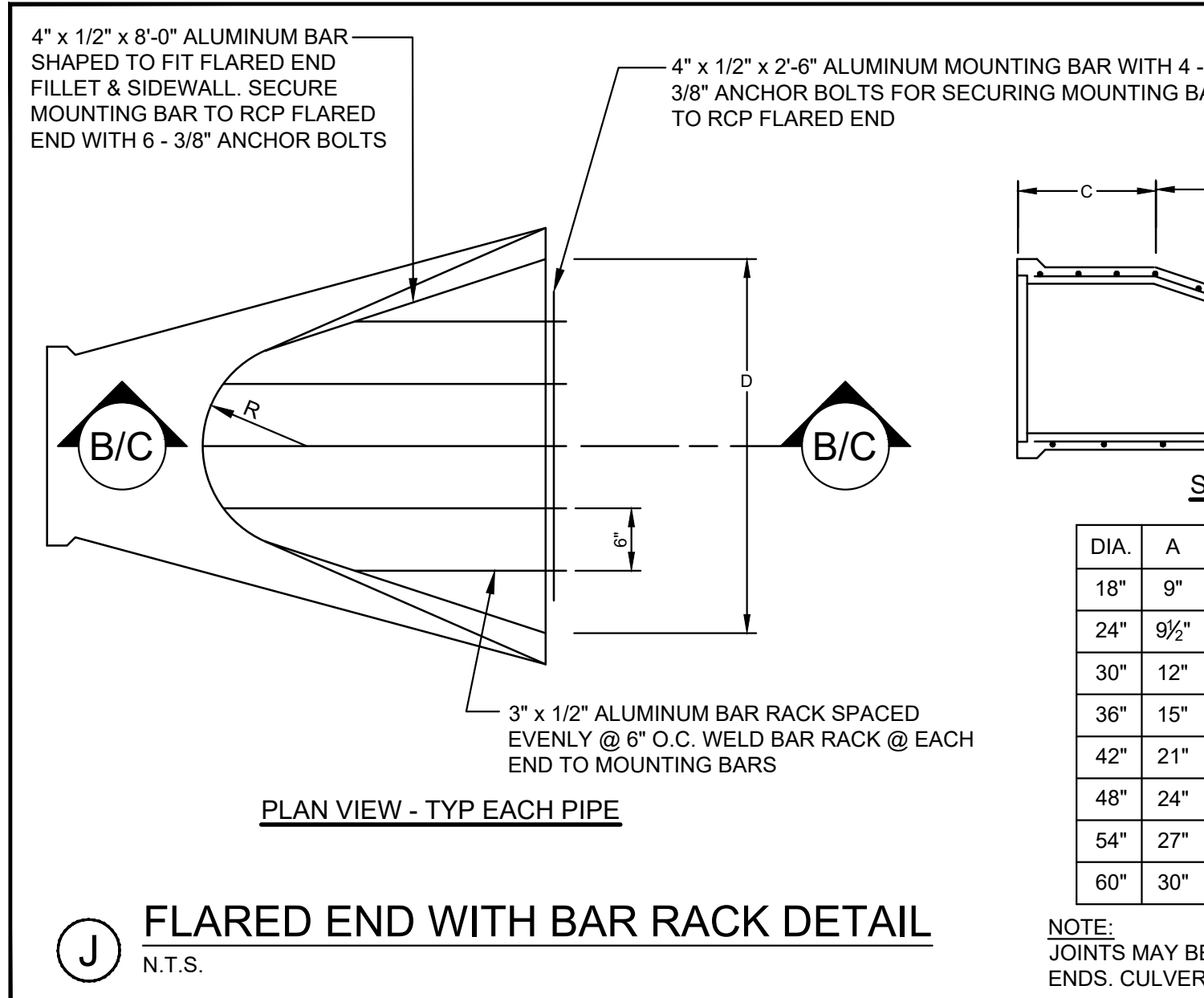
F SILT SACK® DETAIL & SPECIFICATIONS N.T.S.



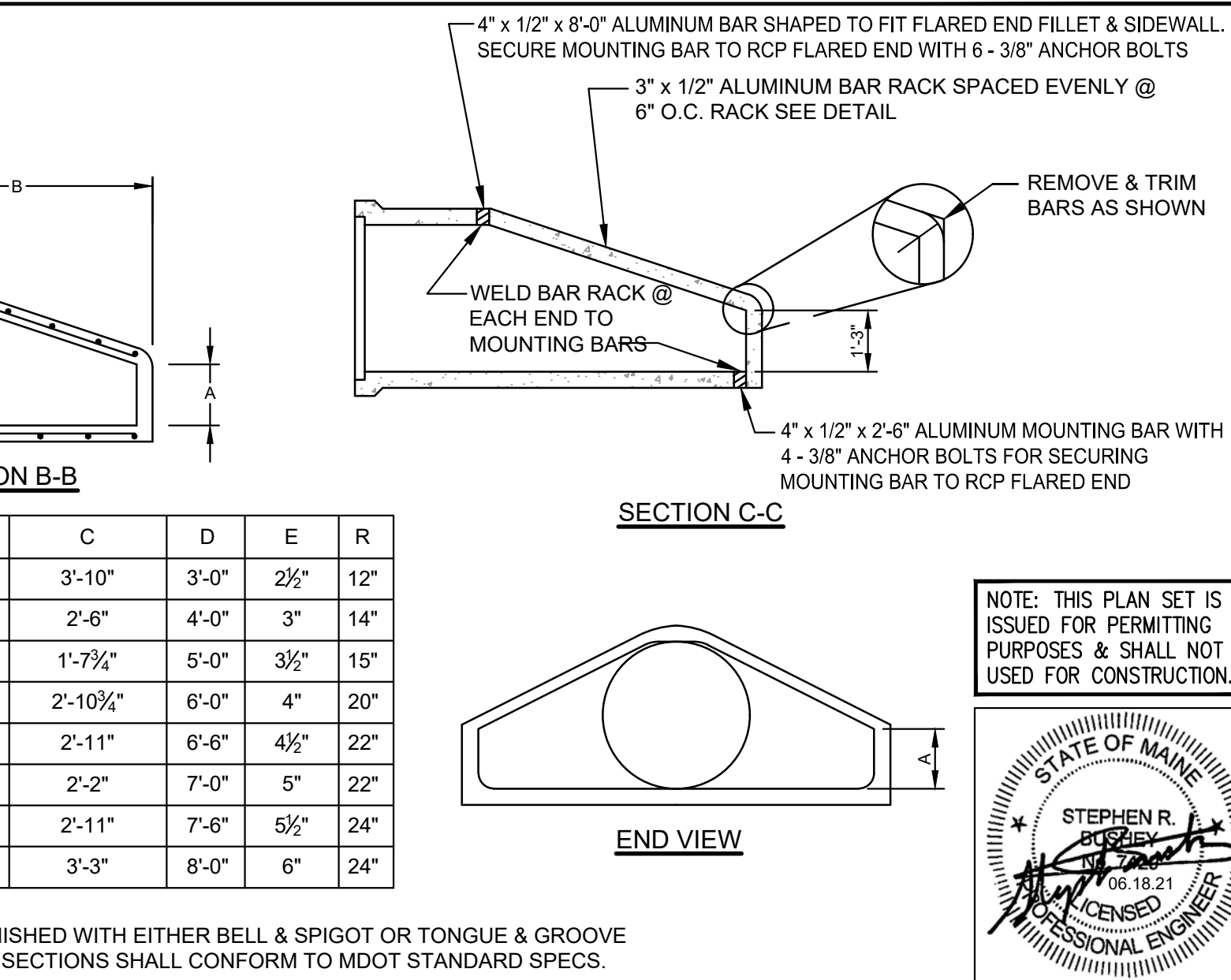
H PIPE/CULVERT OUTLET APRON N.T.S.



I STONE CHECK DAM N.T.S.

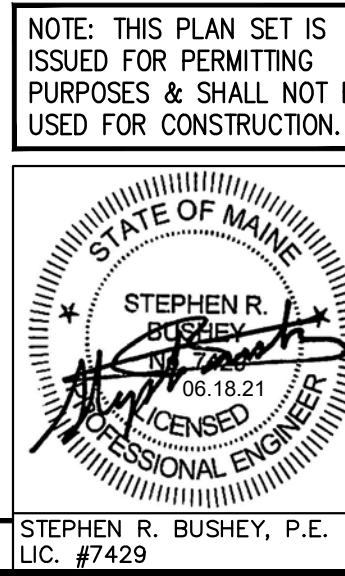


J FLARED END WITH BAR RACK DETAIL N.T.S.



K FLARED END WITH BAR RACK DETAIL N.T.S.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD\DWG\382401--DETAILS.dwg - 6/21/2021 11:15 AM

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 PROJECT. 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 THE 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 QUALIFICATION OF THE PERSON MAKING THE INSPECTIONS AND THE INSPECTION DATE, TIME, AND 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 THAN 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 SWEEPED 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 1/4 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 1/2 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 PRECEDING 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 PRECEDING 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

STACKPILES 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 THROUGH 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 THAN 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 15TH, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES, FINALLY GRADED AREAS SHALL BE FINALLY GRADED, 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. 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, AND 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 PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

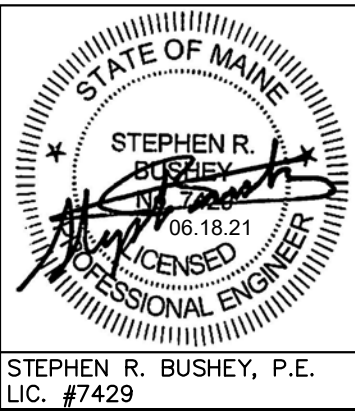
3. **STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS** -- BY SEPTEMBER 15 THE APPLICANT SHALL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE APPLICANT FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY SEPTEMBER 1 THE APPLICANT SHALL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. 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 SOIL BEFORE NOVEMBER 1, THEN THE APPLICANT SHALL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.

STABILIZE THE SOIL WITH SOD -- THE APPLICANT SHALL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY SEPTEMBER 15. 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, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT SHALL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

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



Drawing No.

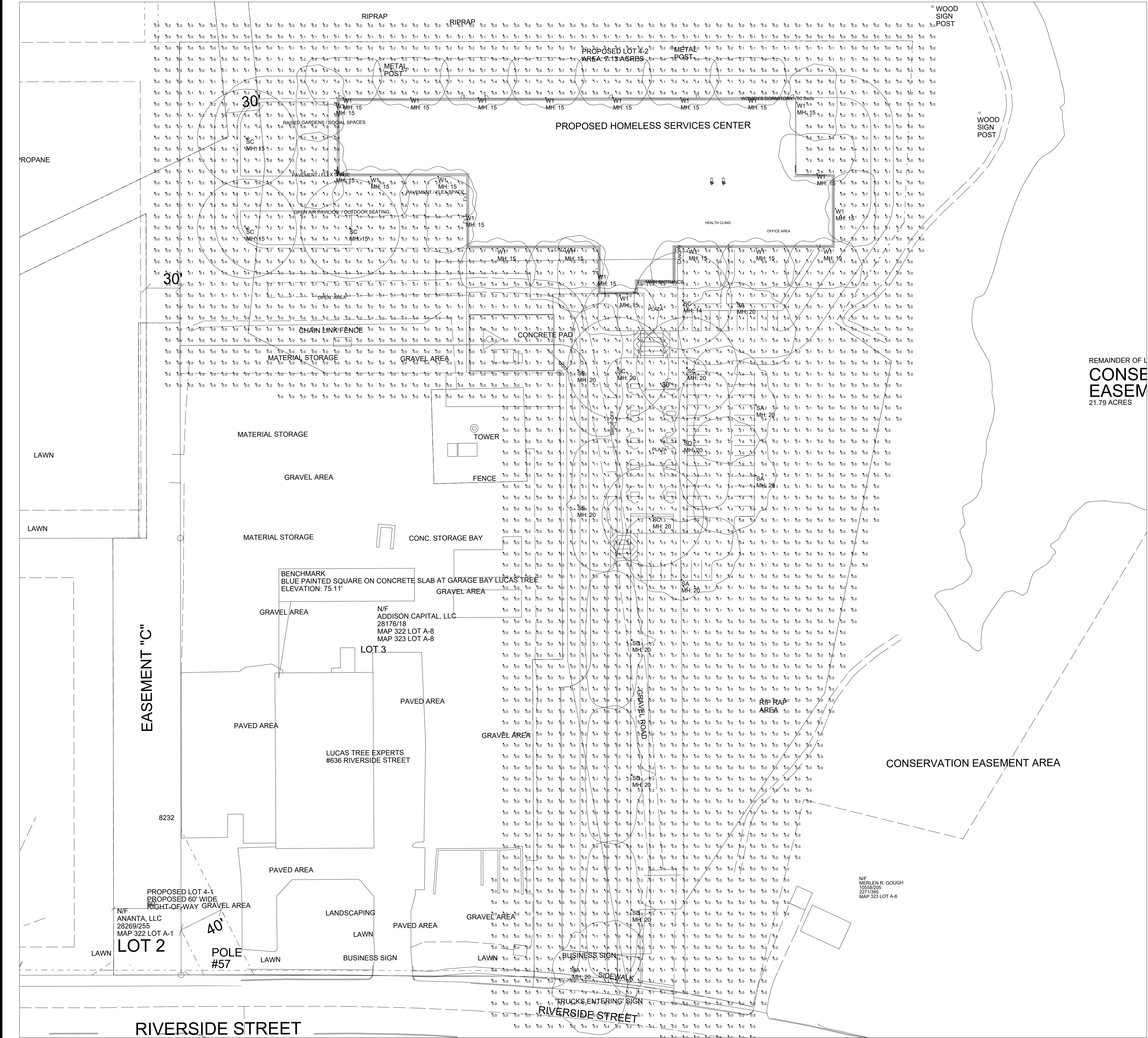
C-8.6

Drawing Name:	EROSION CONTROL NOTES
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

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401--DETAILS.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.		
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW



Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515



- 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	0.40	3.6	0.0	N.A.	N.A.

Luminaire Schedule (note fixture catalogue numbers are not complete)					
Type	Qty	Lumens	LLF	Lum. Watts	Description
SA	5	6696	0.900	65	VPS-36L-65-3K7-4W
SB	2	5637	0.900	82.32	VP-S-36L-80-3K7-3-BC
SC	7	5908	0.900	57.8907	VP-S-24L-55-3K7-5W
SD	4	5492	0.900	54	VP-S-24L-55-3K7-3
W1	22	2588	0.900	28.6	LNC2-12L-3K-070-4

TITLE

654 RIVERSIDE ST - SHELTER
PORTLAND, ME
SITE LIGHTING LAYOUT

GENERATED FOR:
CORRILL PALMER

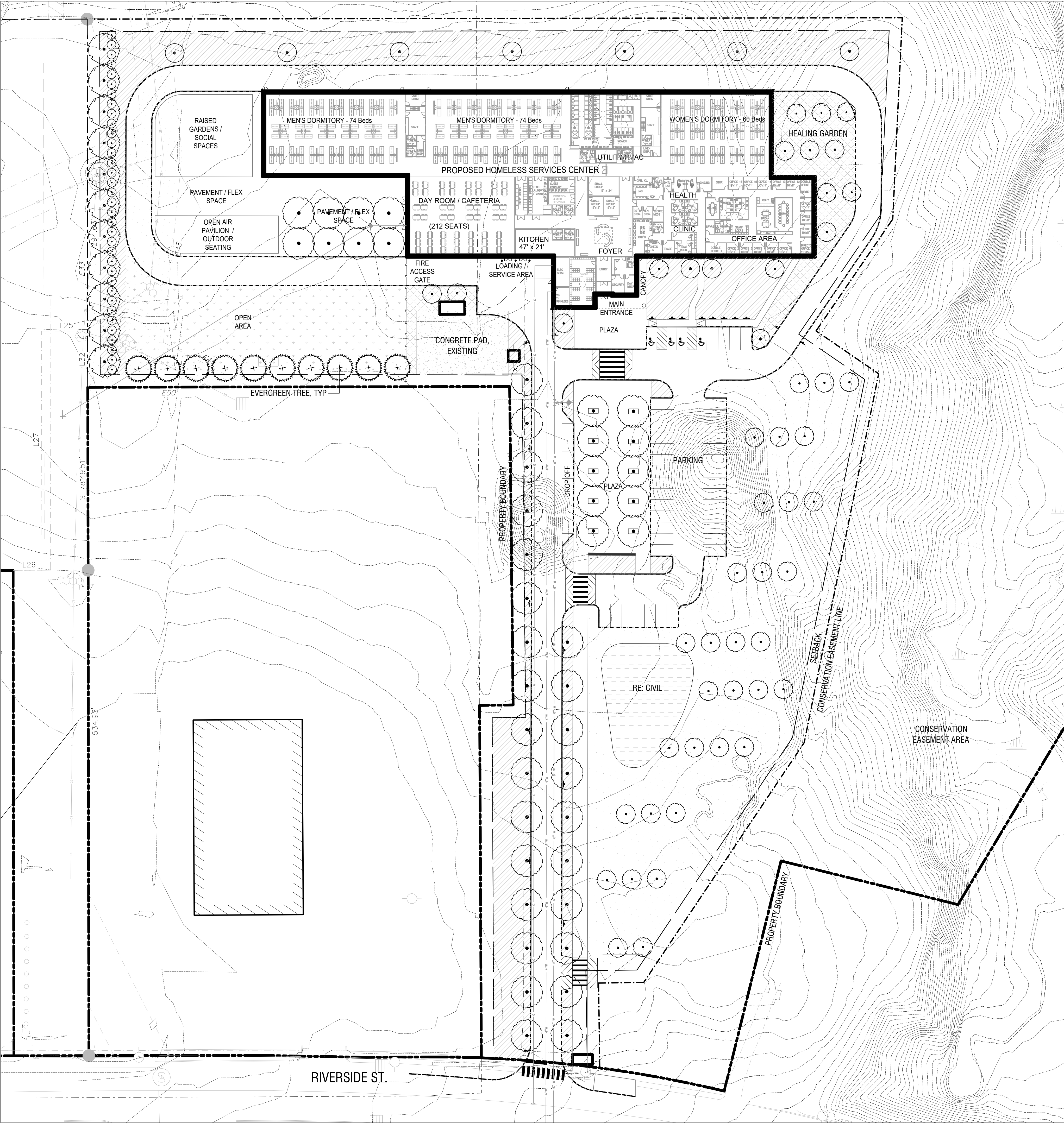
SCALE: NOT TO SCALE

Page 1 of 1

DATE: 6/18/2021

GENERATED BY: SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com

NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. INFORMATION CONCERNING THE OPERATION OF UNITS INDICATED, THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED INFORMATION. THIS DRAWING IS NOT TO BE REPRODUCED, COPIED, OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES. ANY VARIATION IN FIXTURE PERFORMANCE SHOWN IN THIS FILE IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IT'S USE FOR ANY OTHER PURPOSE IS NOT AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.



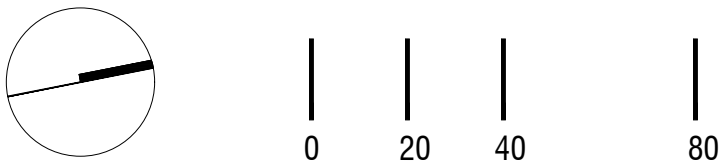
PLANT LIST

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

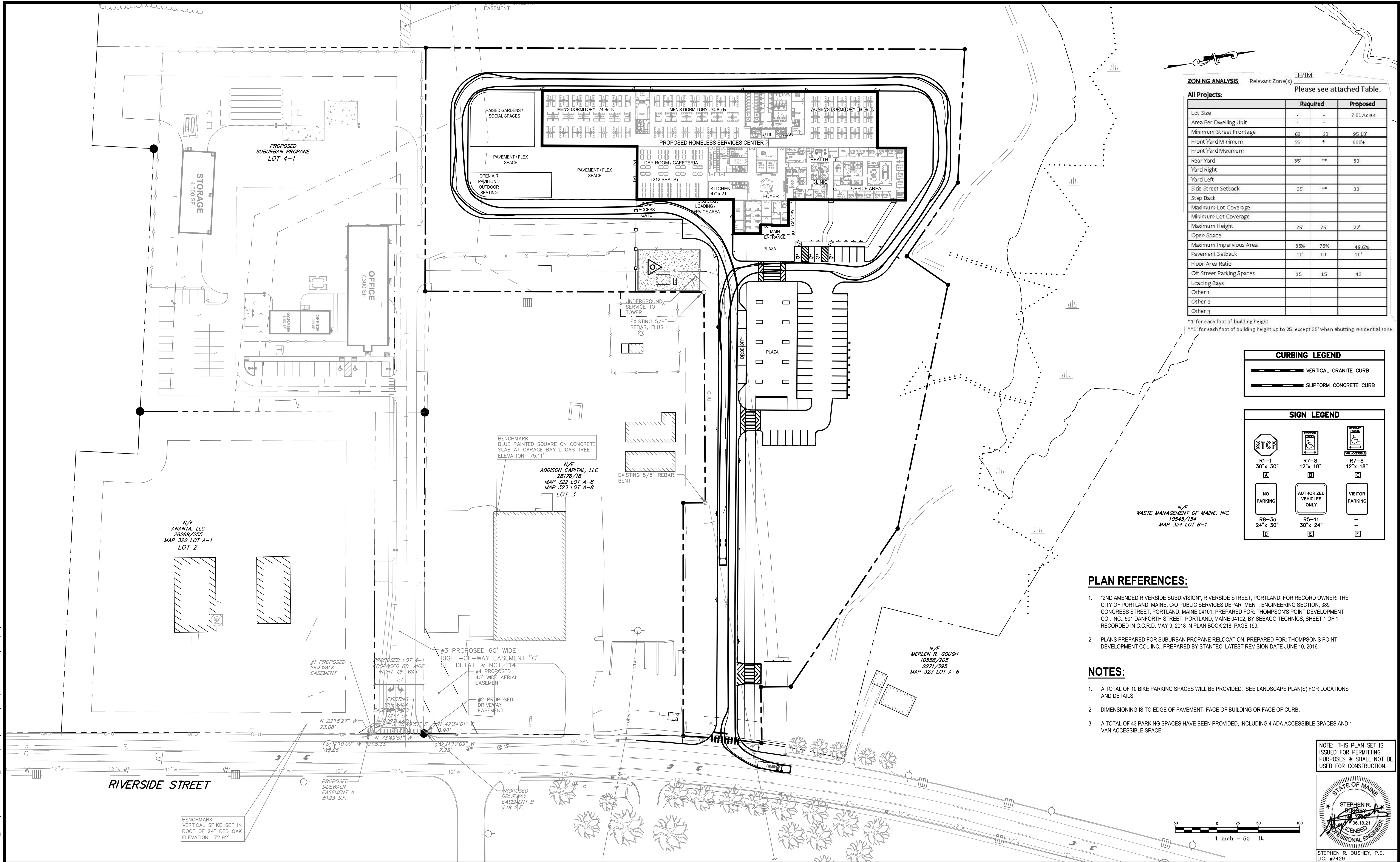
ORNAMENTAL GRASSES & PERENNIALS						
	CA	CAREX PENSYLVANICA	OAK SEDGE	TBD	TBD	PER PLAN
	DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	TBD	PER PLAN

- 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



REVISIONS	DATE

U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-SITE.dwg - 6/21/2021 4:39 PM



ZONING ANALYSIS

Relevant Zone(s)

IH/IM

Please see attached Table.

All Projects:

	Required	Proposed
Lot Size	-	-
Area Per Dwelling Unit	-	-
Minimum Street Frontage	60'	60'
Front Yard Minimum	25'	*
Front Yard Maximum		
Rear Yard	35'	**
Yard Right		
Yard Left		
Side Street Setback	35'	**
Step Back		
Maximum Lot Coverage		
Minimum Lot Coverage		
Maximum Height	75'	75'
Open Space		
Maximum Impervious Area	85%	75%
Pavement Setback	10'	10'
Floor Area Ratio		
Off Street Parking Spaces	15	15
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

SUPPFORM CONCRETE CURB

SIGN LEGEND

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

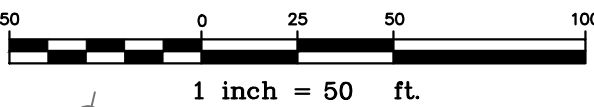
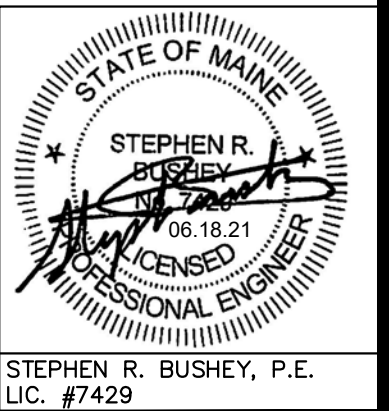
PLAN REFERENCES:

- "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.
- PLANS PREPARED FOR SUBURBAN PROPANE RELOCATION, PREPARED FOR: THOMPSON'S POINT DEVELOPMENT CO., INC., PREPARED BY STANTEC, LATEST REVISION DATE JUNE 10, 2016.

NOTES:

- A TOTAL OF 10 BIKE PARKING SPACES WILL BE PROVIDED. SEE LANDSCAPE PLAN(S) FOR LOCATIONS AND DETAILS.
- DIMENSIONING IS TO EDGE OF PAVEMENT, FACE OF BUILDING OR FACE OF CURB.
- 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.



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

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 Corroll Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Corroll Palmer.		

		Relationships. Responsiveness. Results. www.corrollpalmer.com 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.	-
-------------	---

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 occurred that will be marked off.

-Has there been any contact with the city of Westbrook 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	)	COMMISSIONER'S CERTIFICATION
ATTN: GREG MITCHELL	)	OF COMPLETION OF REMEDIAL
DIRECTOR OF ECONOMIC DEVELOPMENT	)	ACTIONS UNDER A VOLUNTARY
389 CONGRESS STREET	)	RESPONSE ACTION PLAN
PORTLAND, ME 04101	)	

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

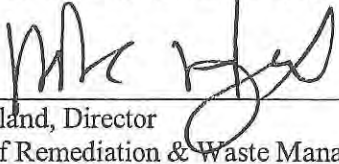
3 COMMISSIONER'S CERTIFICATION
) OF COMPLETION OF REMEDIAL
) ACTIONS UNDER A VOLUNTARY
) RESPONSE ACTION PLAN
)

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

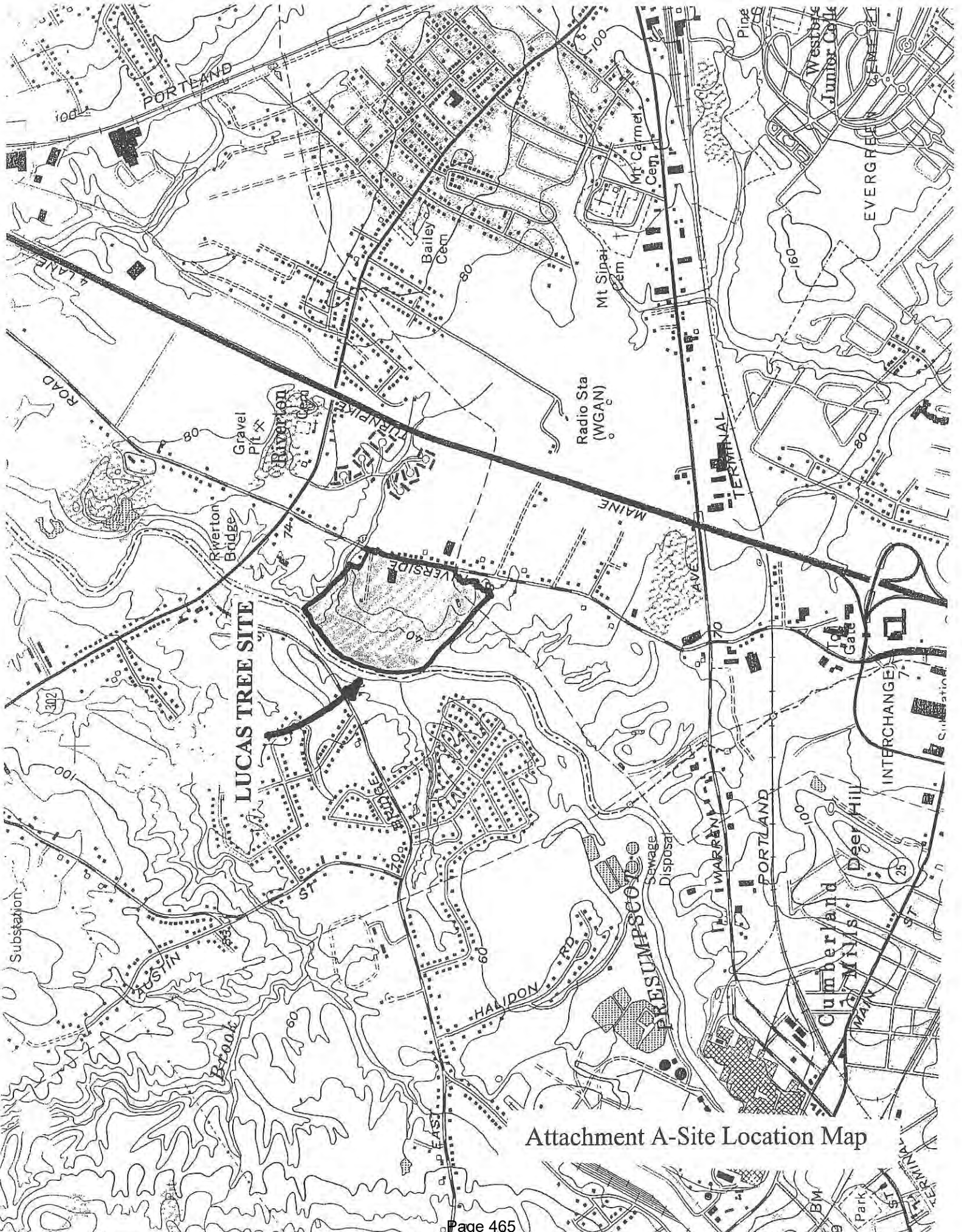
Then personally appeared the above-named Mark Hyland, Director, Bureau of Remediation & Waste Management of the Maine Department of Environmental Protection and duly authorized delegatee for the Commissioner, and acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of the Department of Environmental Protection.

Before me,


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

HOMELESS SERVICE CENTER, RIVERSIDE STREET

PC2

Subscribe ☐

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

P.O. Box 4510

Portland, ME 04112

T: (207) 775-7271

D: (207) 518-5917

F: (207) 775-7935



DAVID J. JONES
F. BRUCE SLEEPER
LESLIE E. LOWRY III
MICHAEL J. QUINLAN
NATALIE L. BURNS
SALLY J. DAGGETT
ROY T. PIERCE
BRENDAN P. RIELLY
NICHOLAS J. MORRILL

MARK A. BOWER
CHARLES M. KATZ-LEAVY
ALYSSA C. TIBBETTS
JEFFREY B. HERBERT
ERICA M. JOHANSON
TUDOR N. GOLDSMITH
KATHERINE C. BAILEY
BENJAMIN T. MCCALL
SHARRA L. INGLIS

TEN FREE STREET
P.O. BOX 4510
PORTLAND, MAINE 04112-4510
(207) 775-7271 (Phone)
(207) 775-7935 (Fax)
www.jensenbaird.com

Of Counsel
JOSEPH G. CARLETON, JR.
LAWRENCE C. CLOUGH
KENNETH M. COLE III
PATRICIA M. DUNN
FRANK H. FRYE
R. LEE IVY
DEBORAH M. MANN
NICHOLAS S. NADZO
RICHARD H. SPENCER, JR.

YORK COUNTY
OFFICE
11 MAIN STREET, SUITE 4
KENNEBUNK, MAINE 04043
(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

~ Over 60 Years of Service ~

July 27, 2021

Page 2

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 serious 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 valves 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.

July 27, 2021

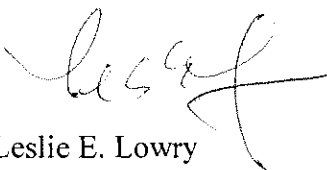
Page 3

- 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

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 data¹

	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>

Comment for 654 (638) Riverside Street

 Subscribe ☐

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.

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

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 on City Homeless Services Center Project (638 Riverside Street)

0 views

[Skip to first unread message](#)

Subscribe



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.

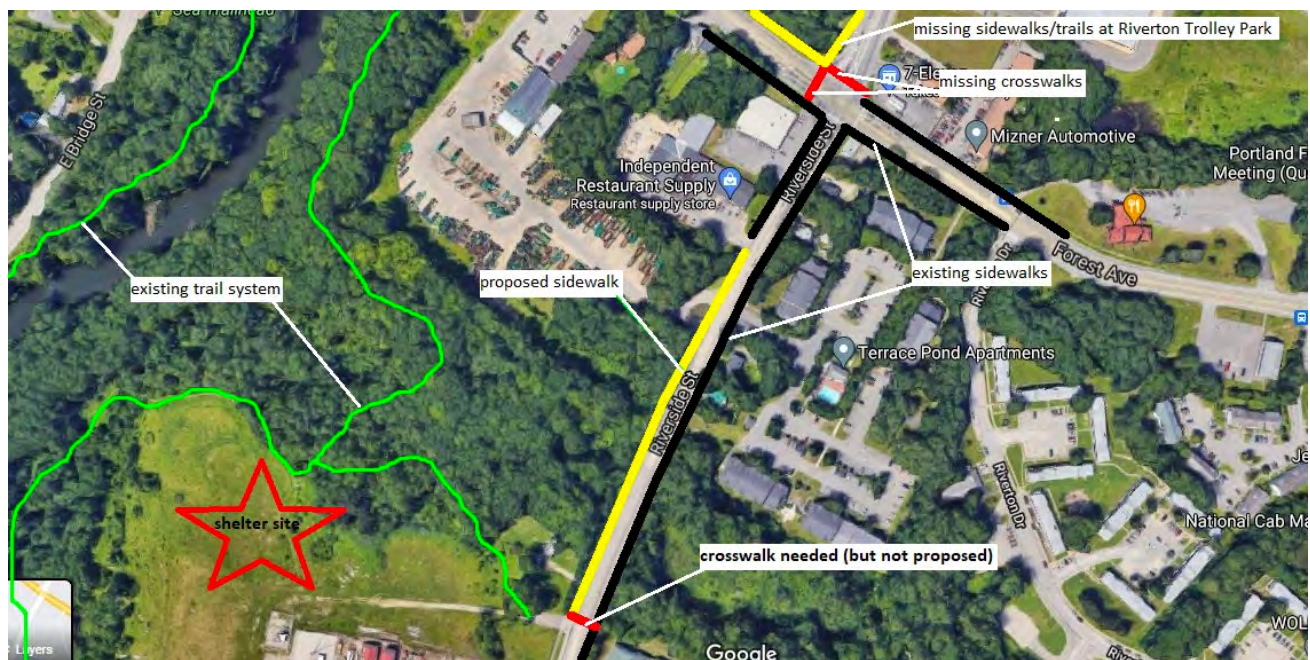
To be clear, our concerns are purely transportation-related, and our membership has diverse opinions about the merits of this proposal. However, we feel about the proposal or city homeless services policies, we stand united in believing that these transportation concerns should be addressed.

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

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](tel:2072720199)

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...

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](tel:207.939.3254)

27 Birchvale Dr
Portland, ME 04102

CONFIDENTIALITY NOTICE: This email message, including any attachments, is for the use of the intended recipient(s) only and may contain information that is privileged, confidential, and prohibited from unauthorized disclosure under applicable law. If you are not the intended recipient of this message, any dissemination, distribution, or copying of this message is strictly prohibited. If you received this message in error, please notify the sender by reply email and destroy all copies of the original message and attachments.



Public Comment: 638 Riverside - Homeless Services Center - Transit Access Issues

George Rheault <george.rheault@gmail.com>

Fri, Aug 20, 2021 at 11:17 AM

To: Planning Board <planningboard@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>, Kevin Kraft <kkraft@portlandmaine.gov>, James Rather <jrather@portlandmaine.gov>, Matthew Grooms <mgrooms@portlandmaine.gov>

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.



Riverton Bus Access - Route 2 METRO Map + Schedule.pdf

1362K

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!!!!

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

INDEX

C-1.0	COVER SHEET
C-1.1	GENERAL NOTES & LEGEND
C-1.2	2nd AMENDED RIVERSIDE SUBDIVISION (BY SEBAGO TECHNICS, INC.)
C-2.0	EXISTING CONDITIONS & REMOVALS PLAN
C-3.0	SITE LAYOUT PLAN
C-4.0	GRADING, DRAINAGE & EROSION CONTROL PLAN
C-4.1	20 SCALE GRADING ENLARGEMENTS
C-4.2	20 SCALE GRADING ENLARGEMENTS
C-5.0	WAYFINDING PLAN
C-6.0	UTILITY PLAN
C-7.0	OVERALL STORMWATER MANAGEMENT PLAN
C-7.1	STORMWATER MANAGEMENT PLAN - BMP PLAN VIEWS
C-7.2	STORMWATER MANAGEMENT PLAN - BMP PLAN VIEWS
C-7.3	STORMWATER MANAGEMENT DETAILS
C-7.4	STORMWATER MANAGEMENT DETAILS
C-7.5	STORMWATER MANAGEMENT DETAILS
C-8.0	SITE DETAILS
C-8.1	SITE DETAILS
C-8.2	STORM DRAIN & UTILITY DETAILS
C-8.3	WATER DETAILS
C-8.4	ELECTRIC & UTILITY DETAILS
C-8.5	EROSION CONTROL DETAILS
C-8.6	EROSION CONTROL NOTES
* C-9.0	ACCESS DRIVE PLAN & PROFILE
C-9.1	SITE CROSS SECTIONS
C-9.2	SITE CROSS SECTIONS
* C-10.0	STORM DRAIN PROFILES
* C-10.1	STORM DRAIN PROFILES
C-11.0	UTILITY PROFILES
L-1	SITE LIGHTING / PHOTOMETRICS PLAN (BY SWANEY LIGHTING ASSOCIATES, INC.)

* NOT INCLUDED IN THIS SUBMISSION

SITE DEVELOPMENT PLANS

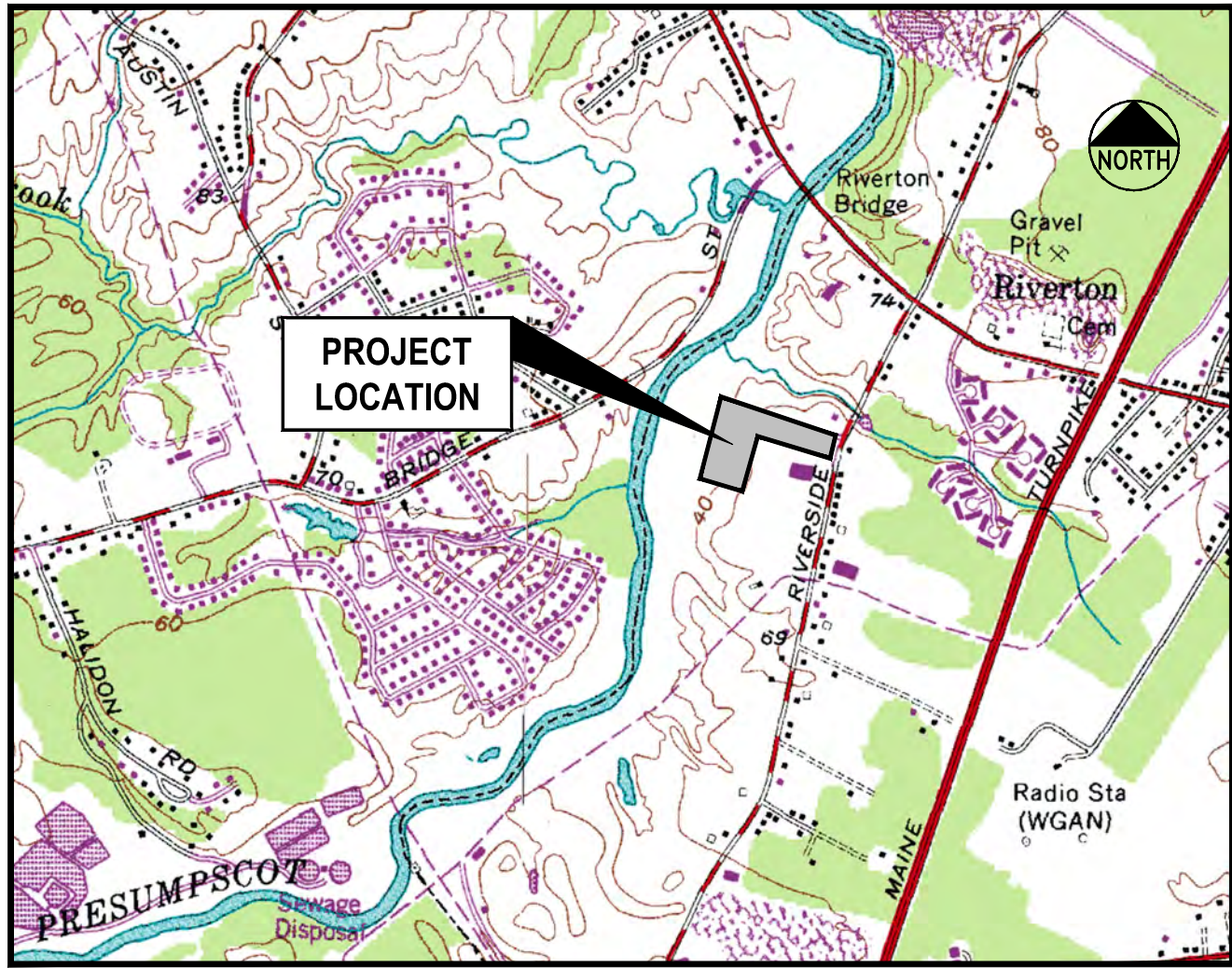
FOR

Homeless Services Center

654 RIVERSIDE STREET, PORTLAND, MAINE

AUGUST 2021

PERMIT DOCUMENTS



LOCATION MAP
N.T.S.

CONSULTANT LIST

CIVIL ENGINEER:
Gorrill Palmer Consulting Engineers, Inc.
707 SABLE OAKS DRIVE, SUITE 30
SOUTH PORTLAND, MAINE 04106
207.772.2515
CONTACT: STEPHEN BUSHEY
sbushey@gorrillpalmer.com

ARCHITECT:
Winton Scott Architects
5 MILK STREET
PORTLAND, MAINE 04101
207.774.4811
CONTACT: STEPHEN WEATHERHEAD
wintonscott.com

SURVEYOR (TOPOGRAPHY AND BOUNDARY):
Sebago Technics
75 JOHN ROBERTS ROAD, SUITE 4A
SOUTH PORTLAND, MAINE 04106
888.976.1123
CONTACT:

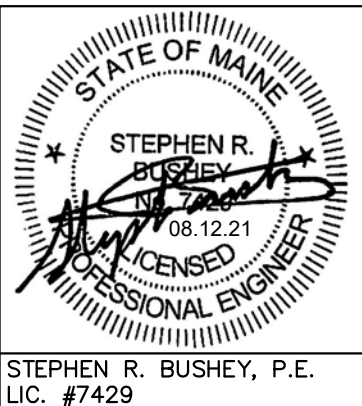
GEOTECHNICAL ENGINEER:
S. W. Cole Engineering, Inc.
286 PORTLAND ROAD
GRAY, MAINE 04039
207.657.2866
CONTACT: TIM BOYCE, P.E.

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.



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:

LOCAL

MAJOR SITE PLAN APPROVAL:

GOVERNING BODY:

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103
207.874.8608
CONTACT: MATT GROOMS

STATUS/DATE ISSUED:

MAJOR SITE PLAN APPLICATION
JUNE 18, 2021
RESUBMISSION AUGUST 11, 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

Stephen R. Bushey

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.

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-COVER.dwg - 8/12/2021 11:14 AM

Rev.	Date	Revision

Rev.	Date	Revision
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		
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.		



Relationships. Responsiveness. Results.
www.gorrillpalmer.com
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

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 SERVICING 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.)

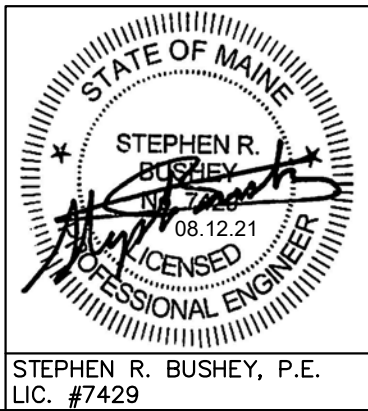
1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNERS REPRESENTATIVE BEFORE AND AFTER PLANTING.
2. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSPECTION AND ACCEPTANCE, 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"

EXISTING	LEGEND	PROPOSED
	ZONING LINE	
	EXISTING STRUCTURE	
	EDGE OF TRAVEL WAY, PAVEMENT, ROADS, DRIVES	
	CURBING	
	PROPERTY LINE	
	EASEMENT LINE	
	OVERHEAD ELECTRIC LINES / OVERHEAD WIRES	
	UNDERGROUND ELECTRIC LINE	
	UNDERGROUND TELEPHONE LINE	
	WATER LINE	
	WATER GATE VALVE	
	STORM DRAIN LINE	
	SANITARY SEWER LINE	
	ROADWAY PAVEMENT STRIPING	
	GAS	
	FENCE	
	EXISTING CONTOUR LINE	
	EXISTING WETLANDS	
	UTILITY POLE	
	SIGN	
	LIGHT POLE	
	CATCH BASIN	
	SEWER MANHOLE	
	ELECTRICAL/COMMUNICATIONS VAULT	
	ELECTRICAL/COMMUNICATIONS PULL BOX	
	HYDRANT	
	TREES, LANDSCAPING	
	TREE LINE / EDGE OF BRUSH	
	TELEPHONE MANHOLE	
	ELECTRICAL MANHOLE	
	TEST BORING	
	WETLANDS	

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



U:\3824.01 Portland Homeless Center Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-COVER.dwg - 8/12/2021 8:39 AM

Rev.	Date	Revision

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



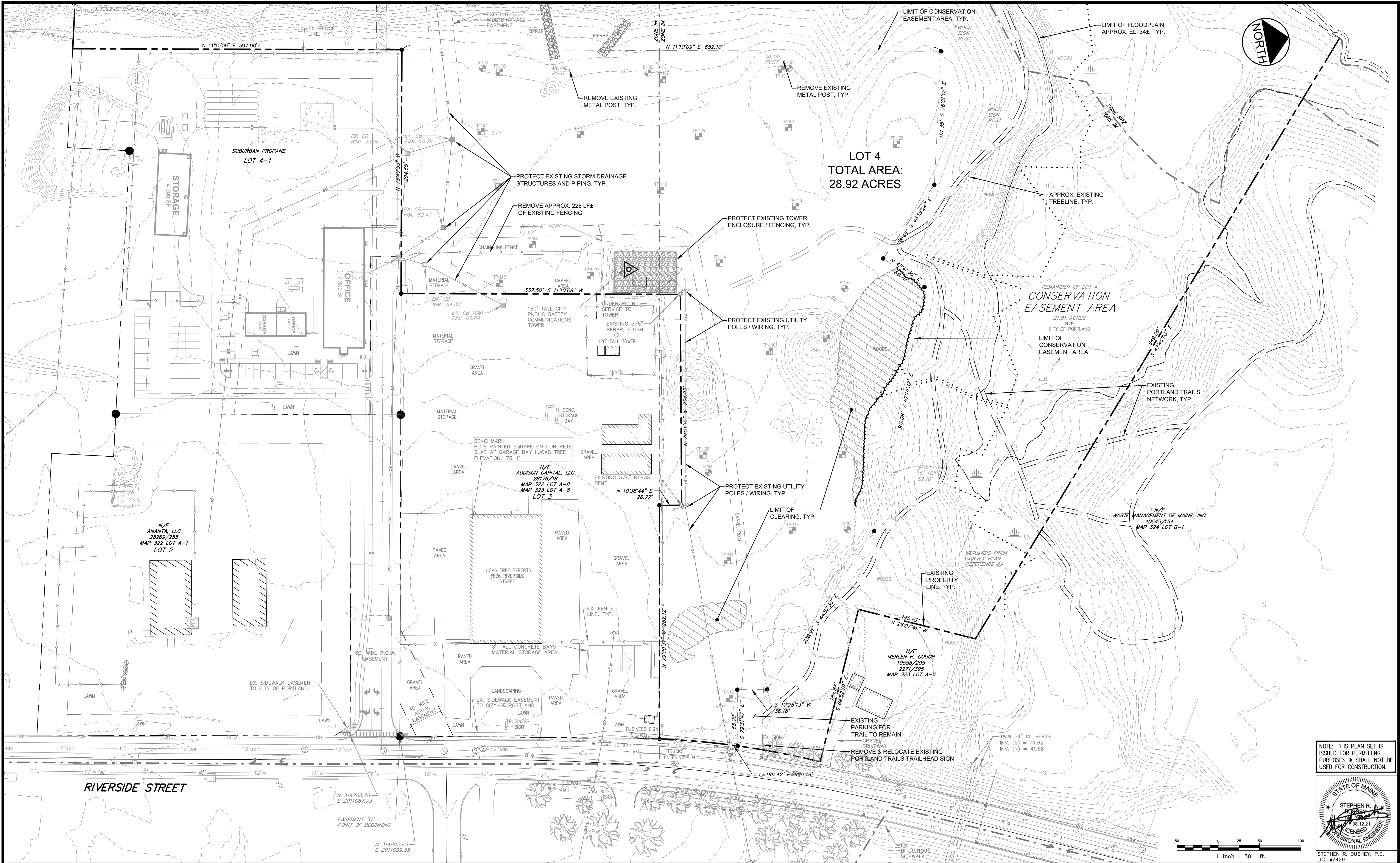
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

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

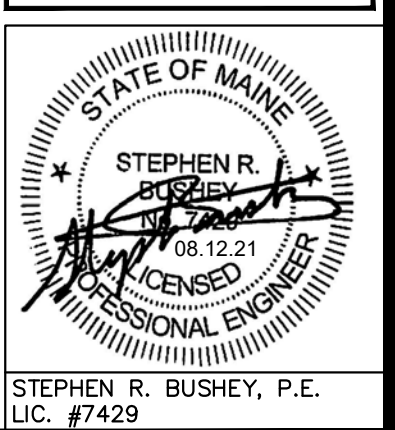
Drawing No.

C-1.1

U:\3824.01\Portland Homeless Center Developer Collaborative-Portland, ME.Z - CAD DWG\382401-EX REMOVALS.dwg - 8/12/2021 11:26 AM



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



Rev.	Date	Revision

Rev.	Date	Revision
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-EX REMOVALS.dwg		
This plan shall not be modified without written permission from Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		

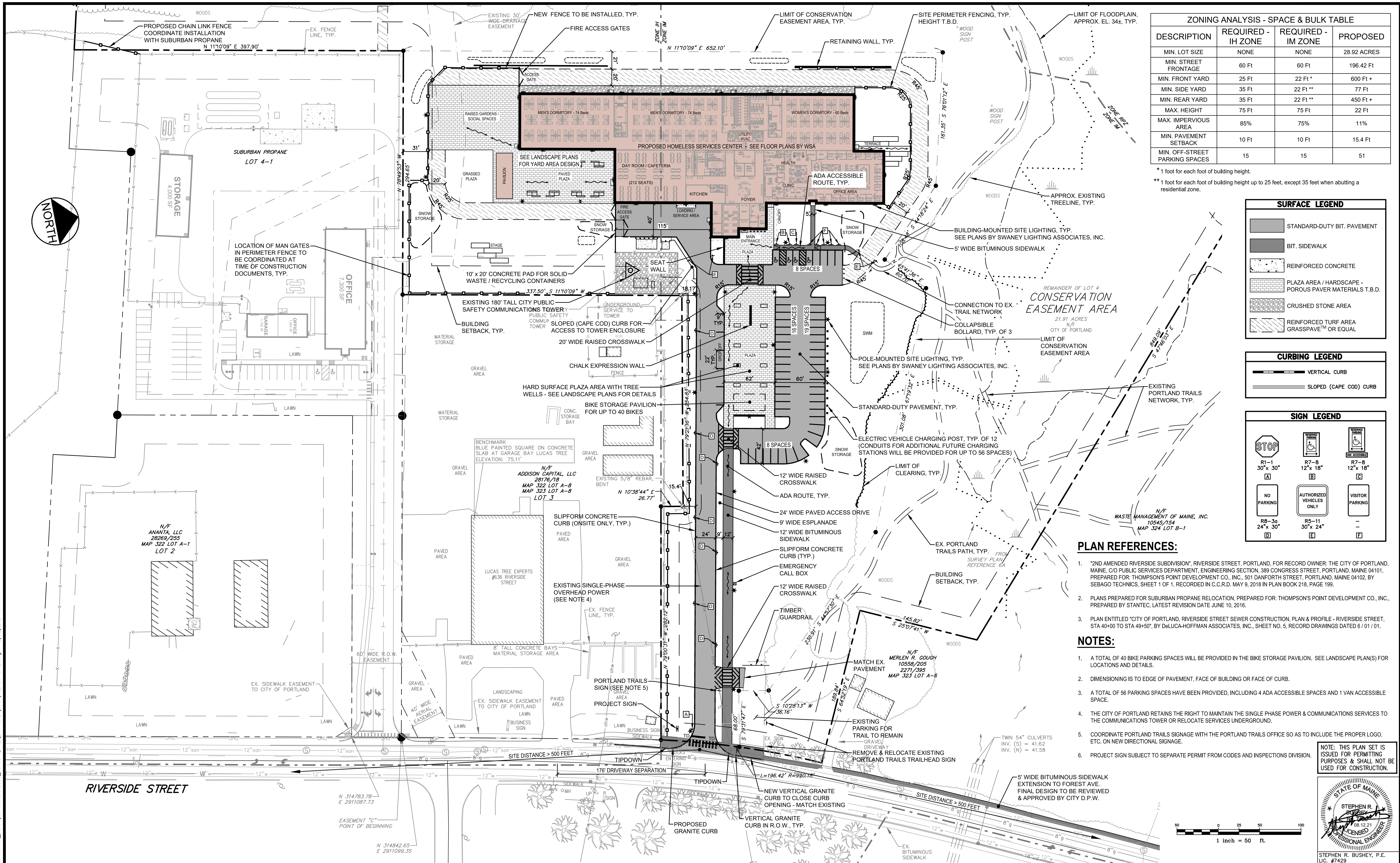


Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

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

U:\3824.01\Portland Homeless Center Collaborative-Portland, ME.Z - CAD\DWG\382401-SITE.dwg - 8/12/2021 3:19 PM



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 Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.



Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

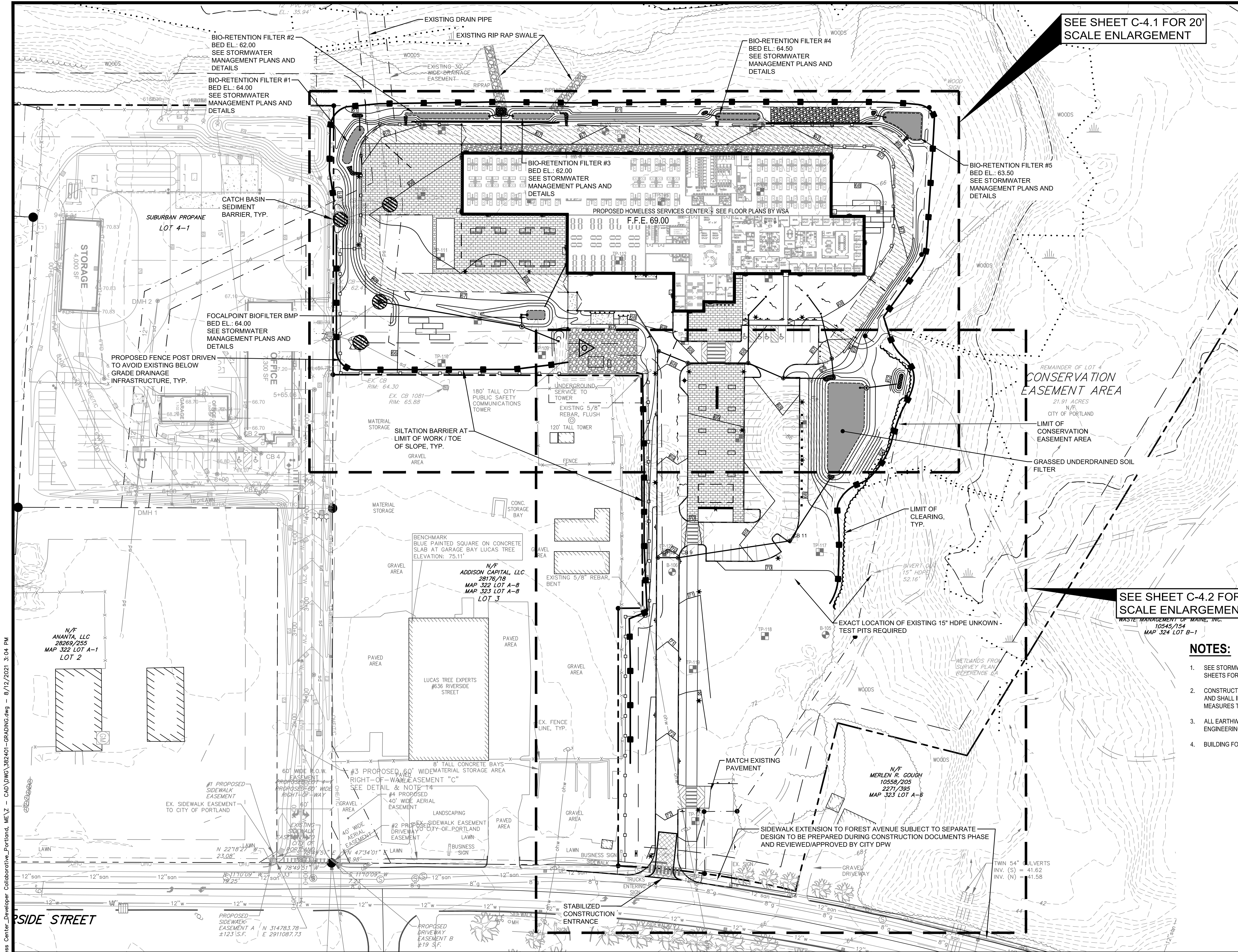
Drawing Name: SITE LAYOUT PLAN

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

U:\3824.01 Portland Homeless Center Collaborative-Portland, ME\Z - CAD\DWG\382401-GRADING.dwg - 8/12/2021 3:04 PM



SEE SHEET C-4.1 FOR 20' SCALE ENLARGEMENT

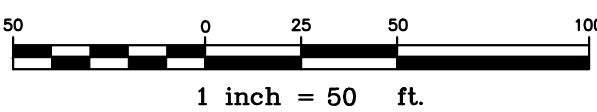
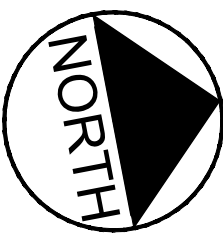
SEE SHEET C-4.2 FOR 20' SCALE ENLARGEMENT

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"	67.50	62.63/12"(CB 2)	62.53/12"()
CB 2	4"	67.86	63.04/12"(CB 3) 63.48/12"(F1 1)	62.94/12"(CB 1)
CB 3	4"	67.73	63.64/12"(CB 4)	63.54/12"(CB 2)
CB 4	4"	67.70		63.90/12"(CB 3)
CB 5	4"	67.35	63.26/12"(F1 3)	63.16/12"(GUSF-2)
CB 8	4"	63.25		59.37/12"(DMH 1)
CB 9	4"	71.08	65.74/12"(CB 10)	65.64/12"(CB 11)
CB 10	4"	70.04		65.96/12"(CB 9)
CB 11	4"	72.18	64.40/12"(CB 9)	64.30/12"()
DMH 1	4"	60.50	57.10/12"(CB 8) 57.07/6"(Structure - (34))	56.97/12"(EX CB)
FI 1		68.75	63.48/12"(F1 2)	64.00/12"(CB 2)
FI 2		68.75		64.00/12"(F1 1)
FI 3		68.75	63.26/12"(F1 4)	63.75/12"(CB 5)
FI 4		68.75		63.75/12"(F1 3)
OCS-1	5"	62.50	58.67/6"()	58.57/12"()

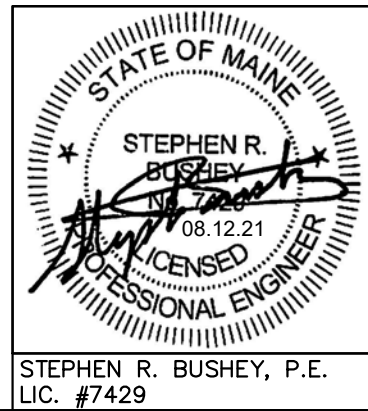
SD PIPE TABLE			
Pipe Name	Size	Length	Slope
SD 1	12"	43'	0.69%
SD 2	12"	38'	0.75%
SD 3	12"	62'	0.75%
SD 4	12"	30'	0.75%
SD 5	12"	48'	1.00%
SD 6	12"	17'	0.70%
SD 7	12"	47'	0.96%
SD 9	12"	52'	1.04%
SD 11	12"	120'	1.00%
SD 12	12"	18'	1.00%
SD 13	6"	13'	1.06%
SD 14	6"	9'	1.00%
SD 15	6"	9'	1.00%
SD 16	6"	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:

- SEE STORMWATER MANAGEMENT PLAN FOR MORE INFORMATION OF EACH STORMWATER MANAGEMENT BMP AND DETAIL SHEETS FOR CONTINUATION OF INFORMATION.
- 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.
- 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.
- 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.



Rev.	Date	Revision
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Rev.	Date	Revision
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-GRADING.dwg		
This plan shall not be modified without written permission from Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		



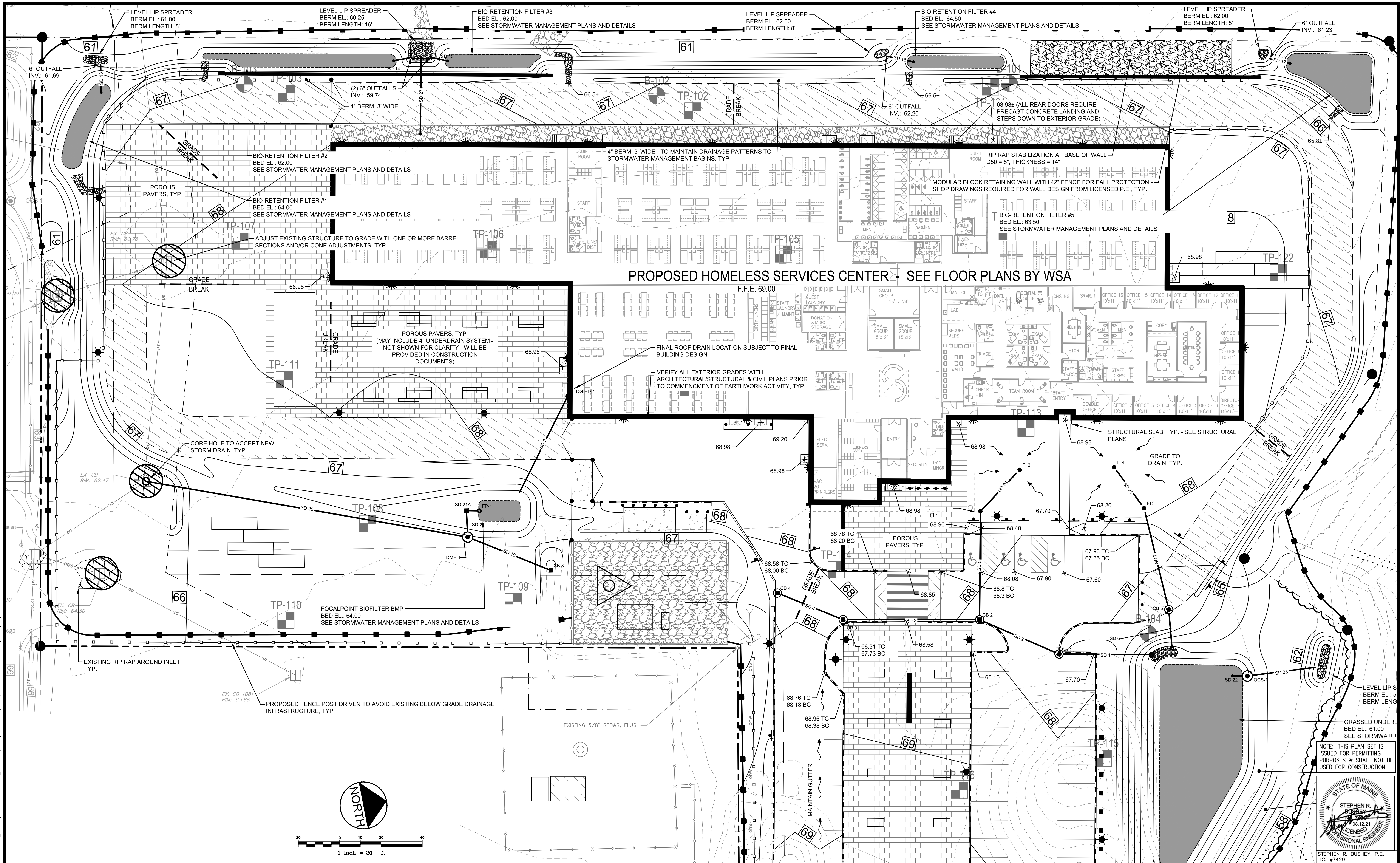
Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

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

U:\3824.01\Portland Homeless Center Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-GRADING.dwg - 8/12/2021 3:08 PM



Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS

Rev.	Date	Revision
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS

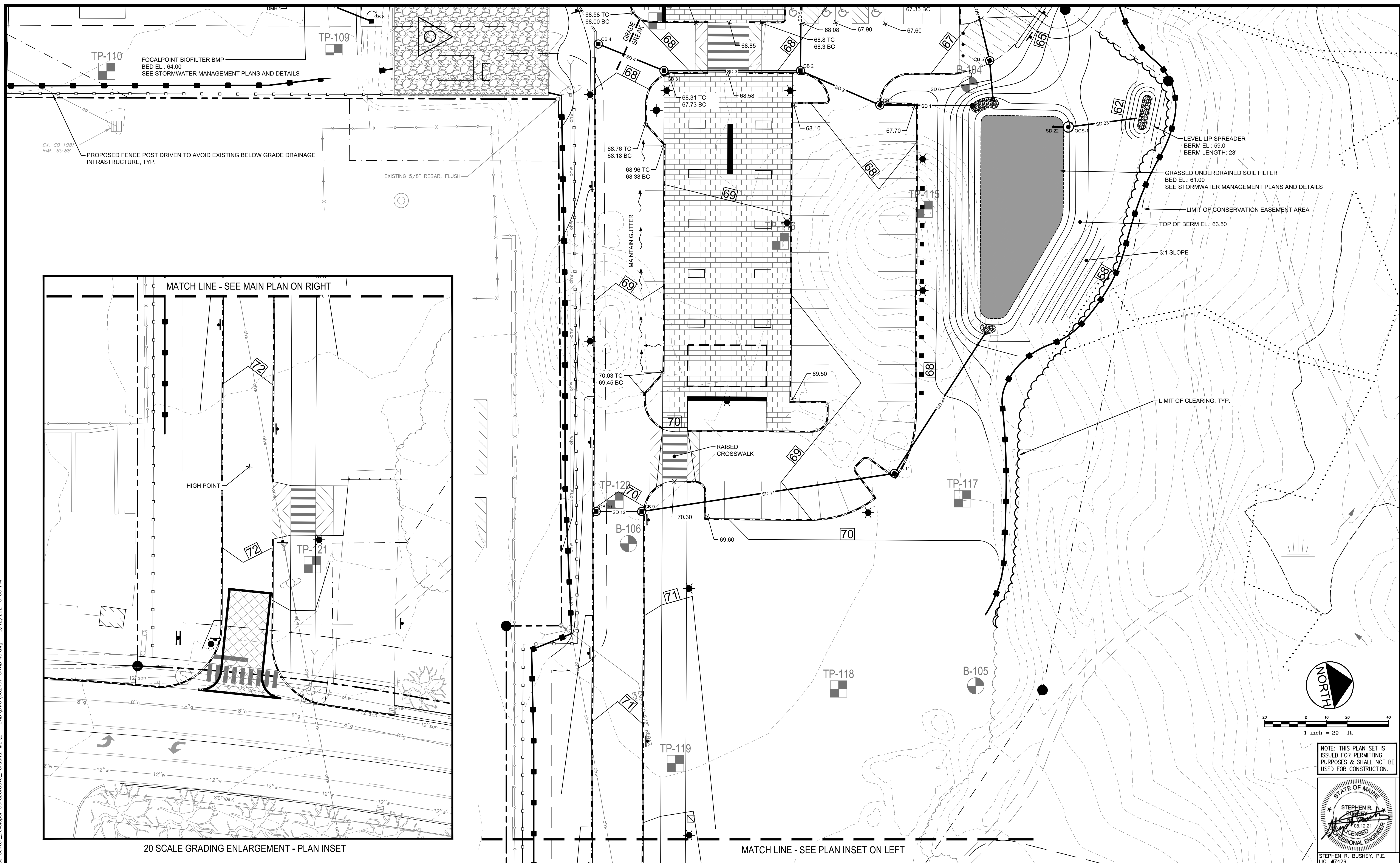
Design: SRB Draft: CDD Date: JUNE 2021
Checked: SRB Scale: AS NOTED Job No.: 3824.01
File Name: 382401-GRADING.dwg
This plan shall not be modified without written permission from Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.



Relationships. Responsiveness. Results.
www.gorrellpalmer.com
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
-------------	-------



Rev.	Date	Revision
------	------	----------

2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENT
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW
Rev.	Date	Revision

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

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



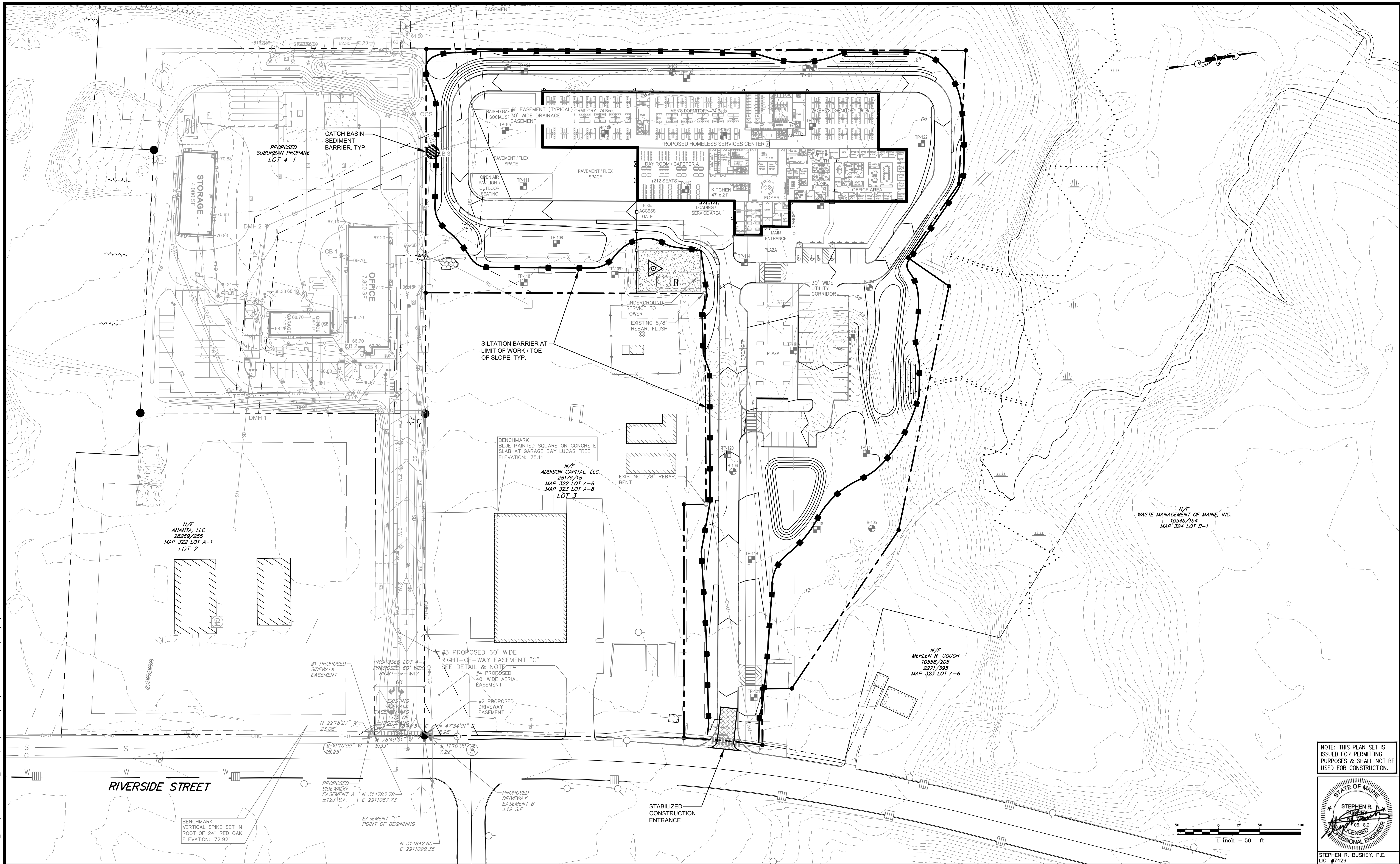
Relationships. Responsiveness. Results.
www.gorillpalmer.com
207.772.2515

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-4.2

U:\3824.01\Portland Homeless Center Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-EROSION.dwg - 6/21/2021 12:15 PM



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

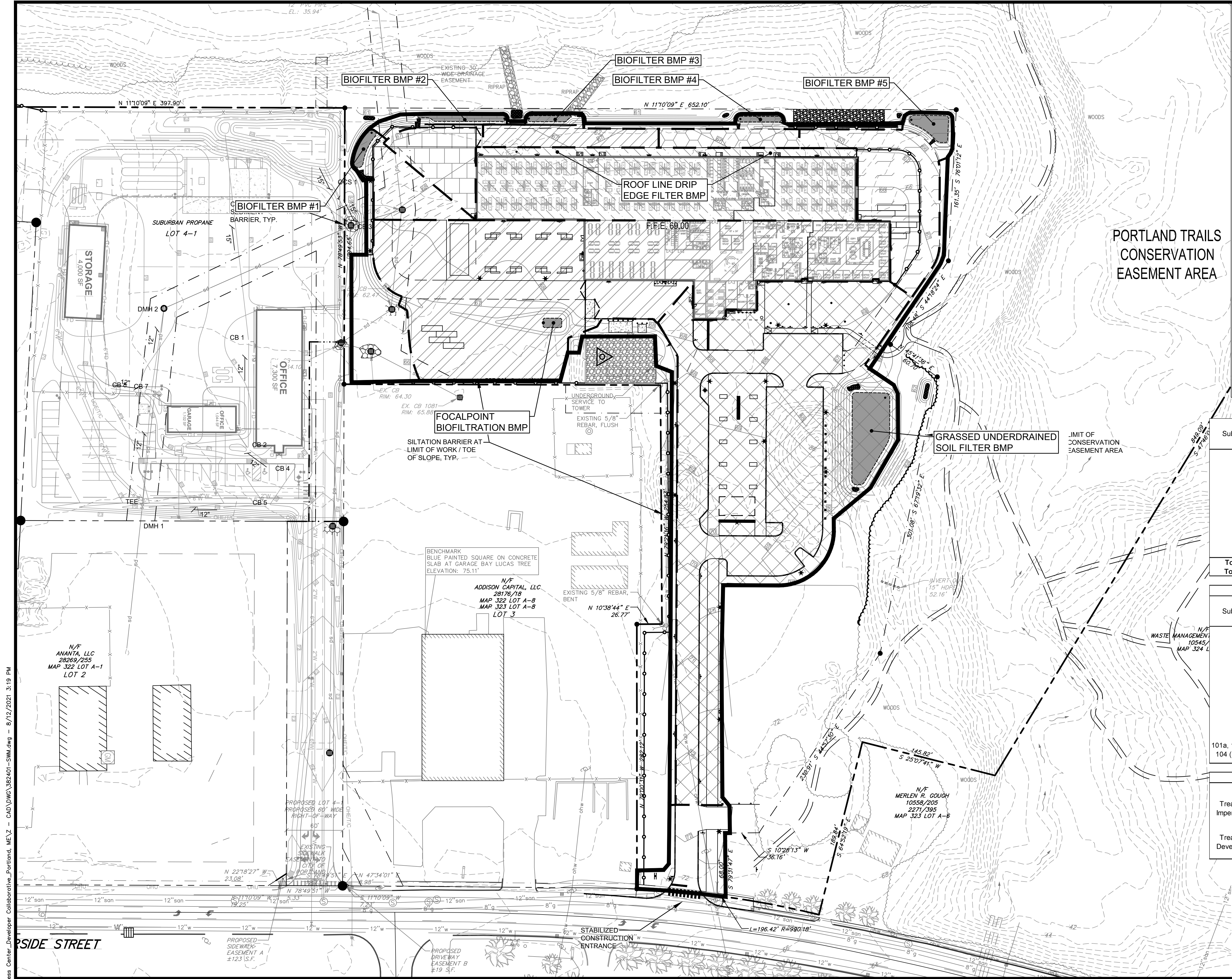


GORRELL PALMER

Relationships. Responsiveness. Results.
www.gorrellpalmer.com
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



STORMWATER TREATMENT METHOD LEGEND

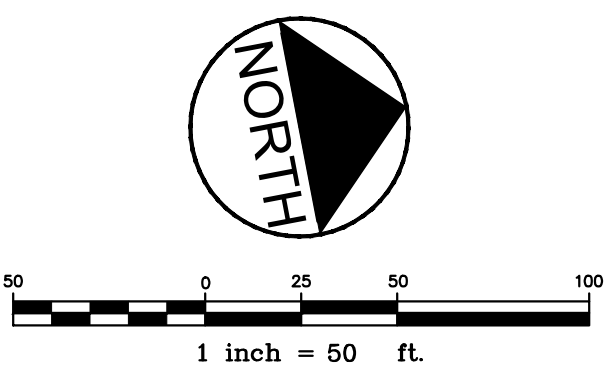
- TO BIO-FILTER #1
- TO BIO-FILTER #2
- TO BIO-FILTER #3
- TO BIO-FILTER #4
- TO BIO-FILTER #5
- TO FOCALPOINT
- TO GRASSED UNDERDRAINED SOIL FILTER
- TO ROOF LINE DRIP EDGE FILTER
- UNTREATED AREA

STORMWATER MANAGEMENT SUMMARY

Subarea ID	New Development			Treated New	
	Impervious Area (sf)	Landscaped Area (sf)	Total Developed Area (sf)	Impervious Area (sf)	Landscaped 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%



FOR USES & SHALL NOT BE USED FOR CONSTRUCTION.

STATE OF MAINE
STEPHEN R. BUSHEY, P.E.
L.C. #7429

Rev.

Date

Revision

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-SWM.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.

GP

GORRILL PALMER

Relationships. Responsiveness. Results.

www.gorrillpalmer.com

207.772.2515

Drawing Name:

OVERALL STORMWATER MANAGEMENT PLAN

Project:

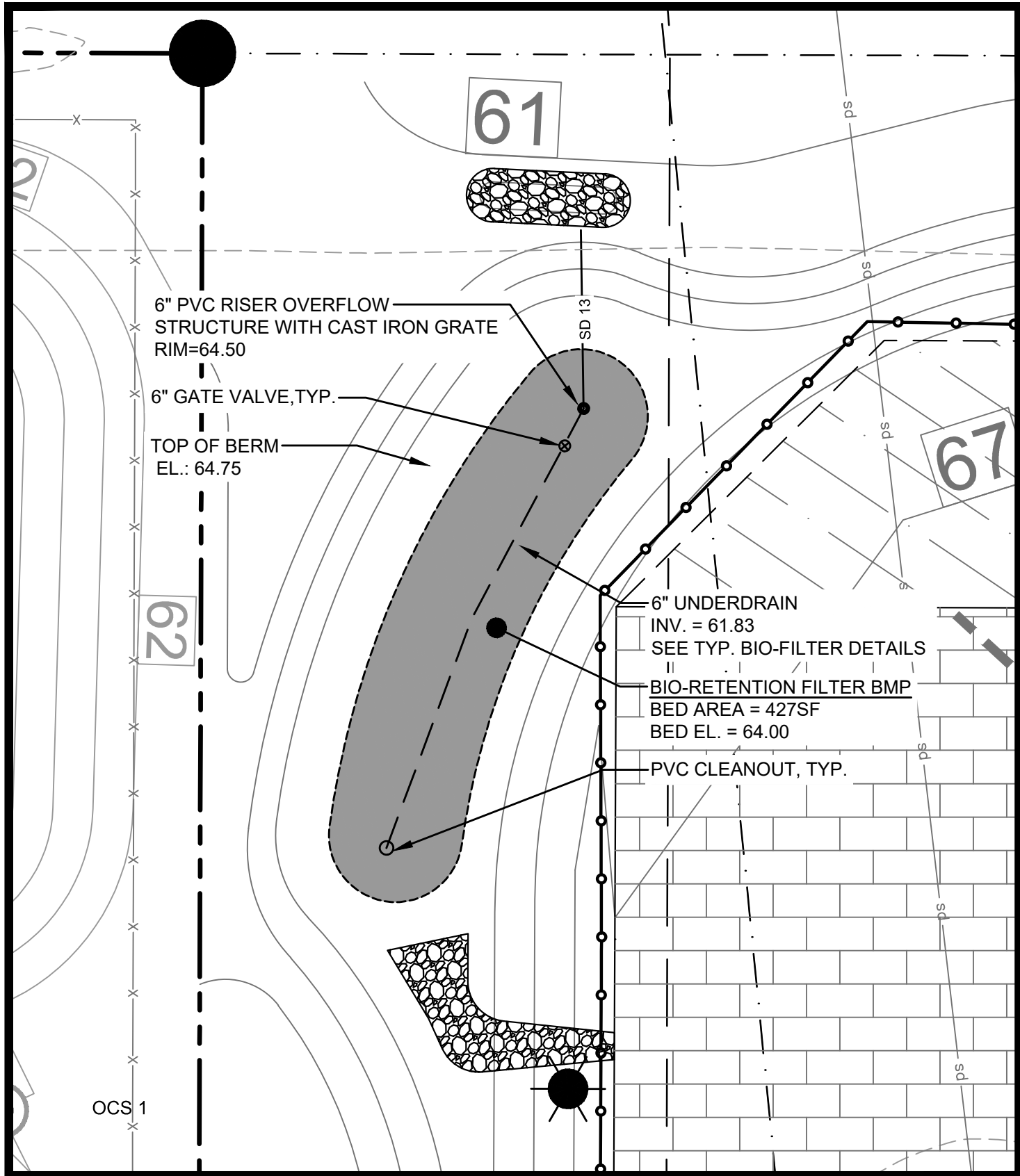
Homeless Services Center
654 Riverside Street, Portland, Maine

Client/Owner:

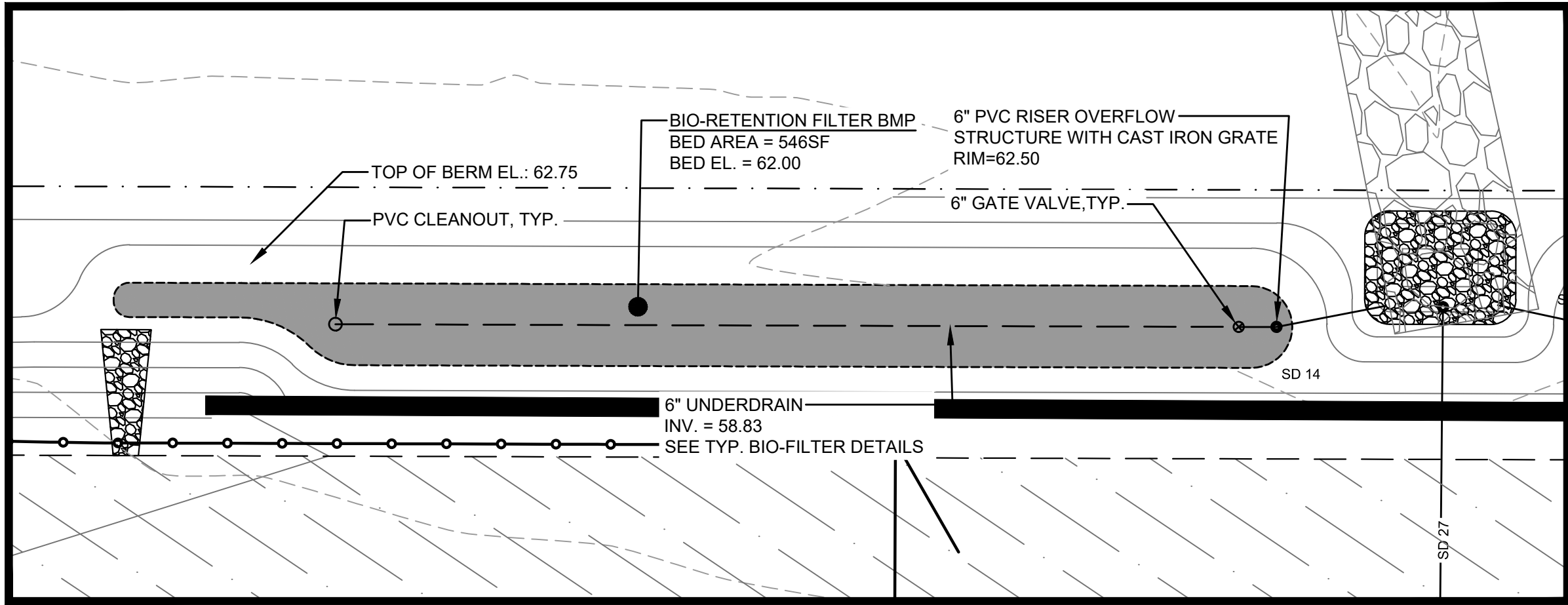
DC Predevelopment LLC
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Drawing No.

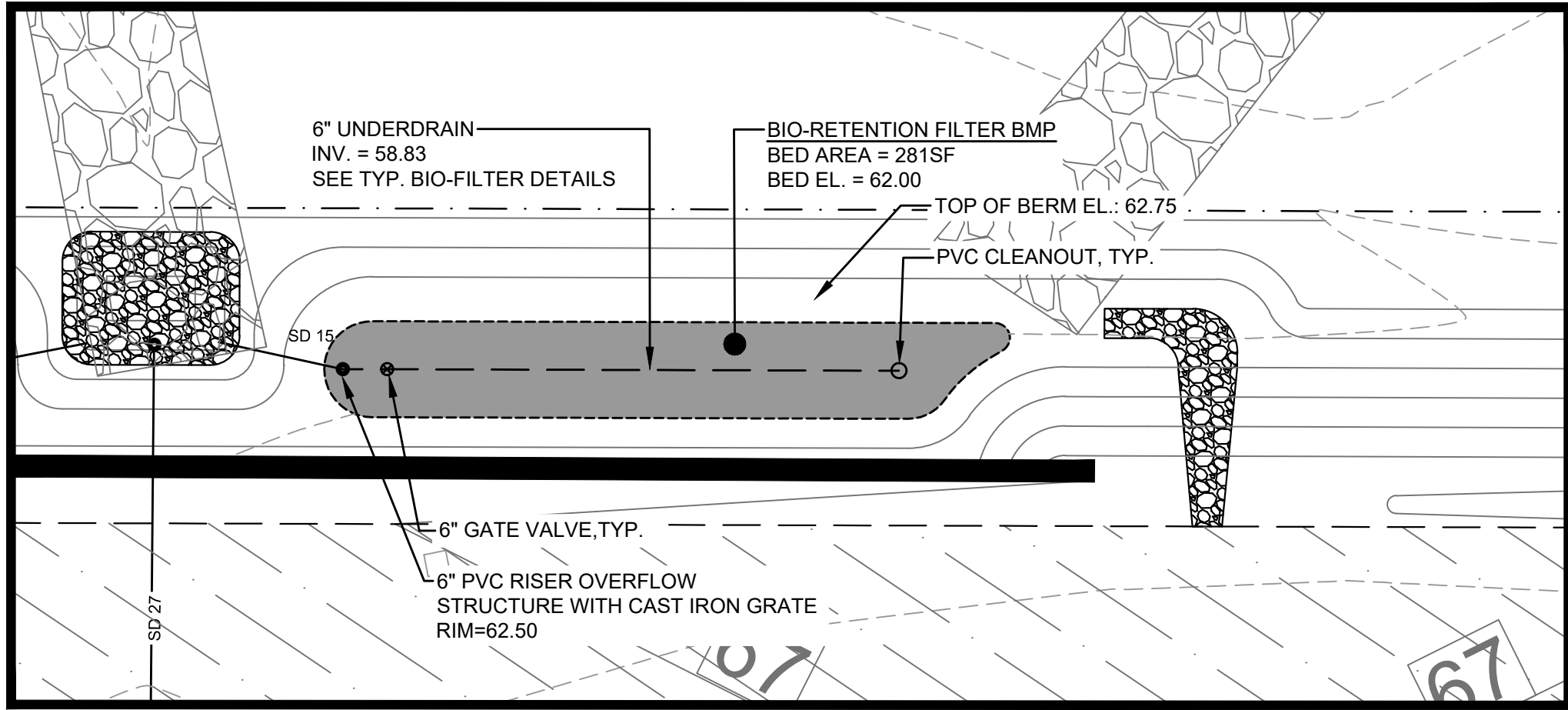
C-7.0



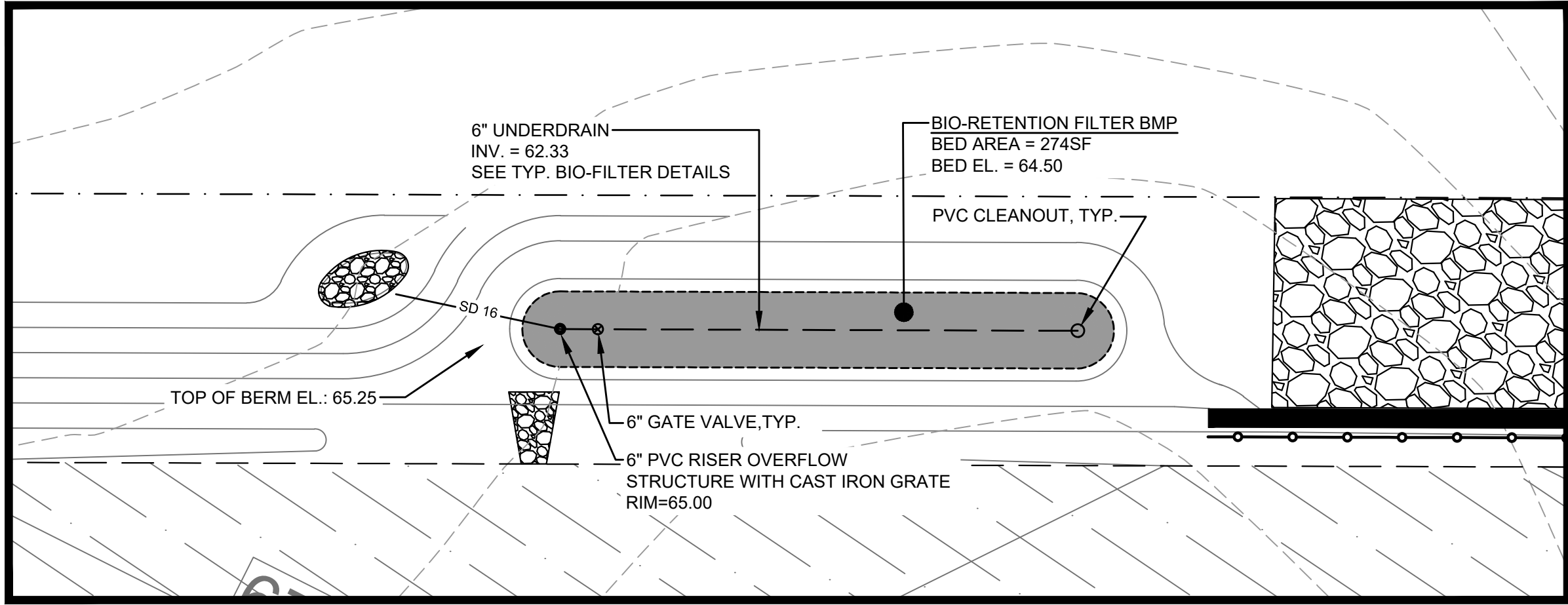
BIO-RETENTION FILTER #1
SCALE: 1" = 10'



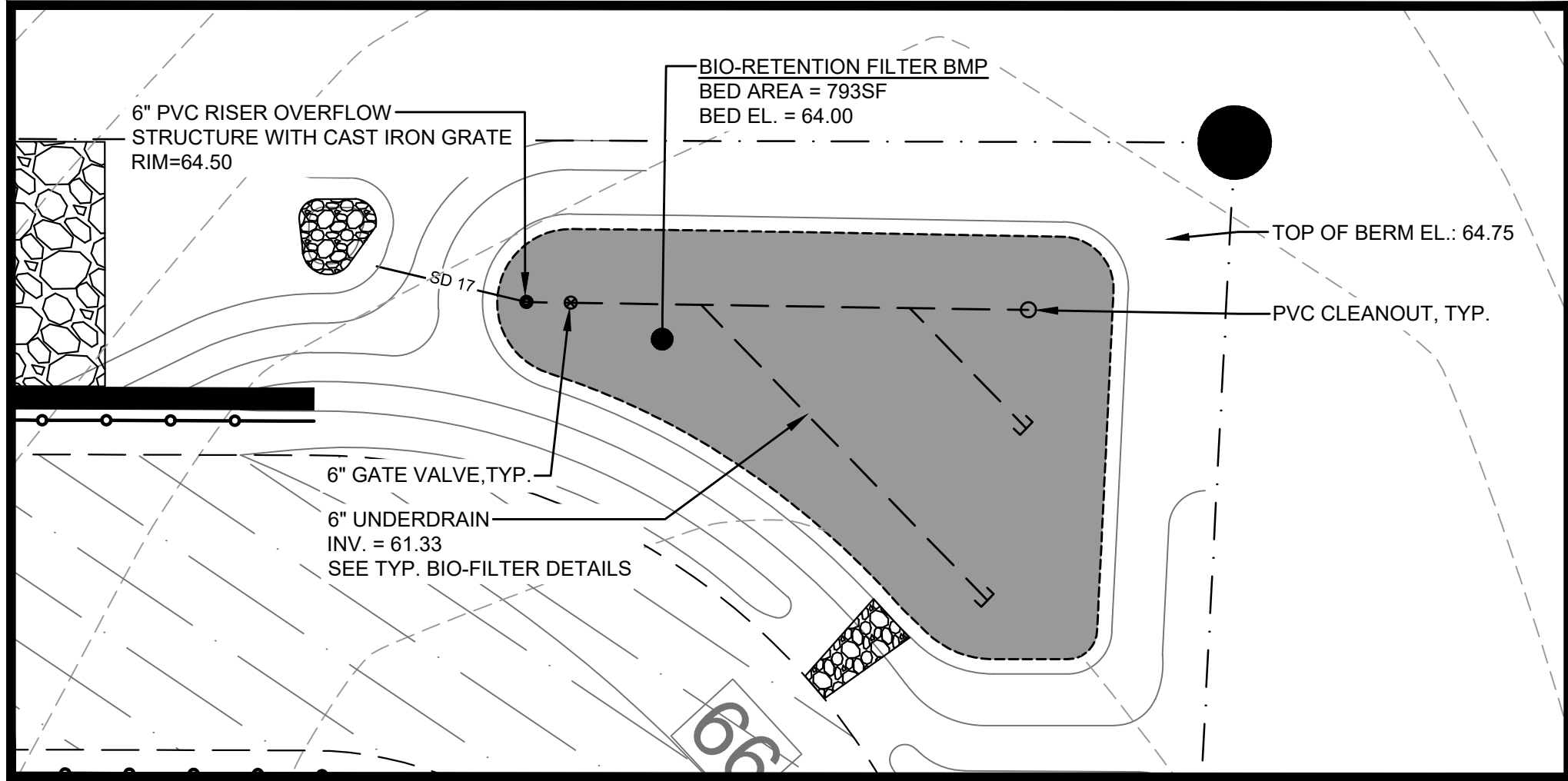
BIO-RETENTION FILTER #2
SCALE: 1" = 10'



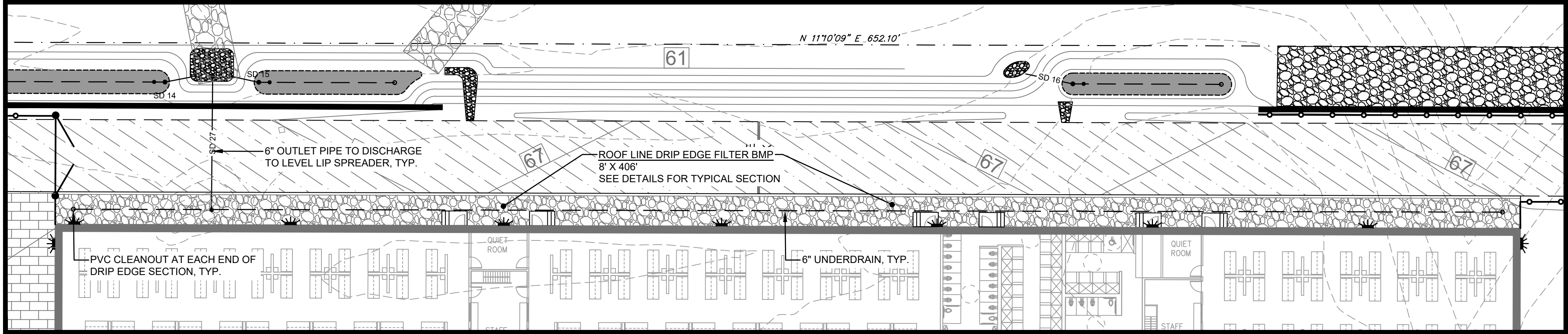
BIO-RETENTION FILTER #3
SCALE: 1" = 10'



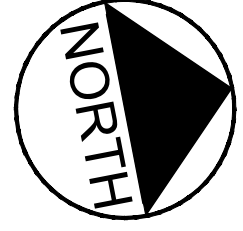
BIO-RETENTION FILTER #4
SCALE: 1" = 10'



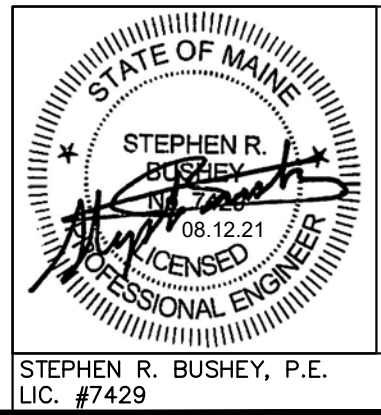
BIO-RETENTION FILTER #5
SCALE: 1" = 10'



ROOF LINE DRIP EDGE FILTER
SCALE: 1" = 20'



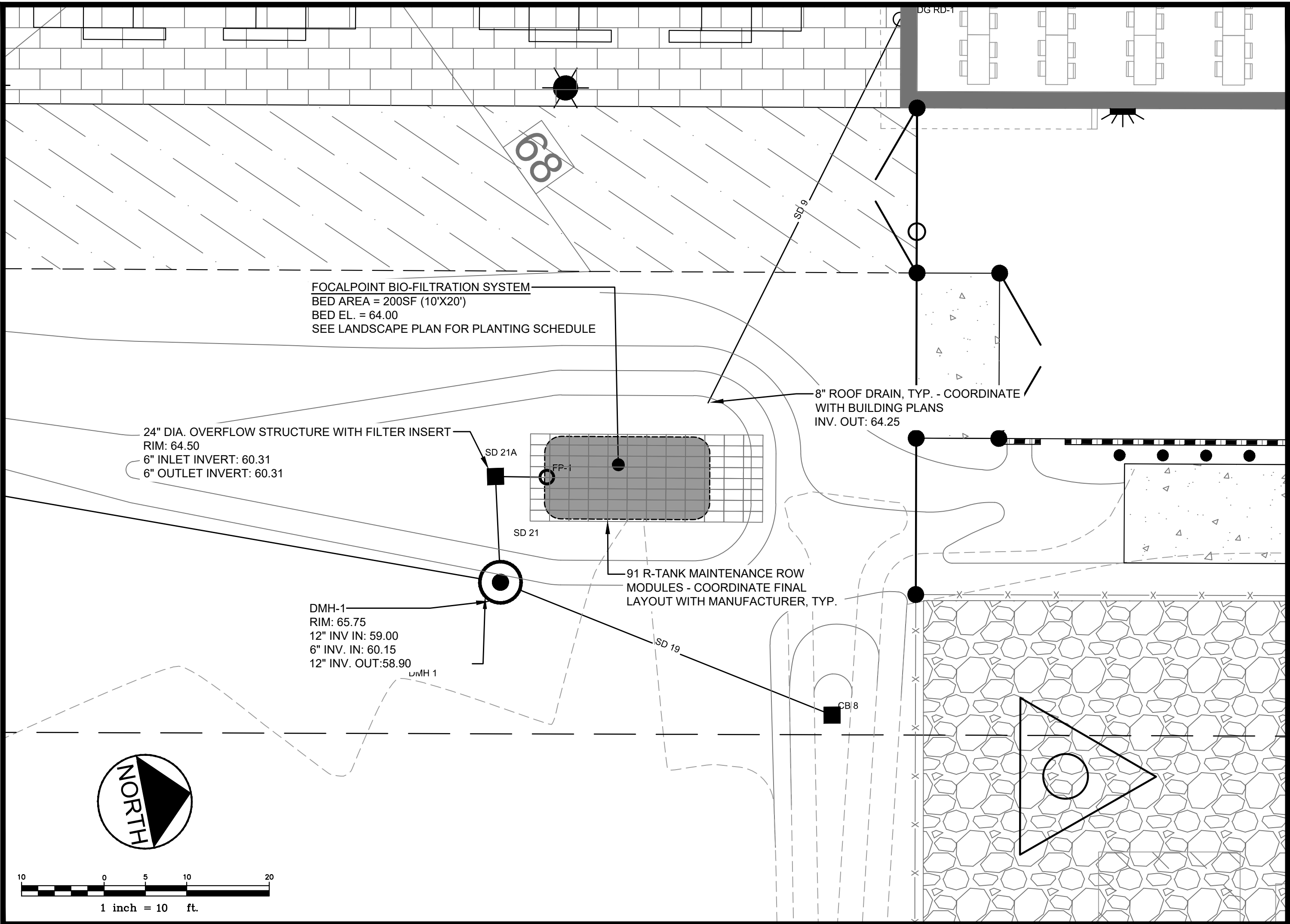
NOTE: THIS PLAN SET IS
ISSUED FOR PERMITTING
PURPOSES & SHALL NOT BE
USED FOR CONSTRUCTION.



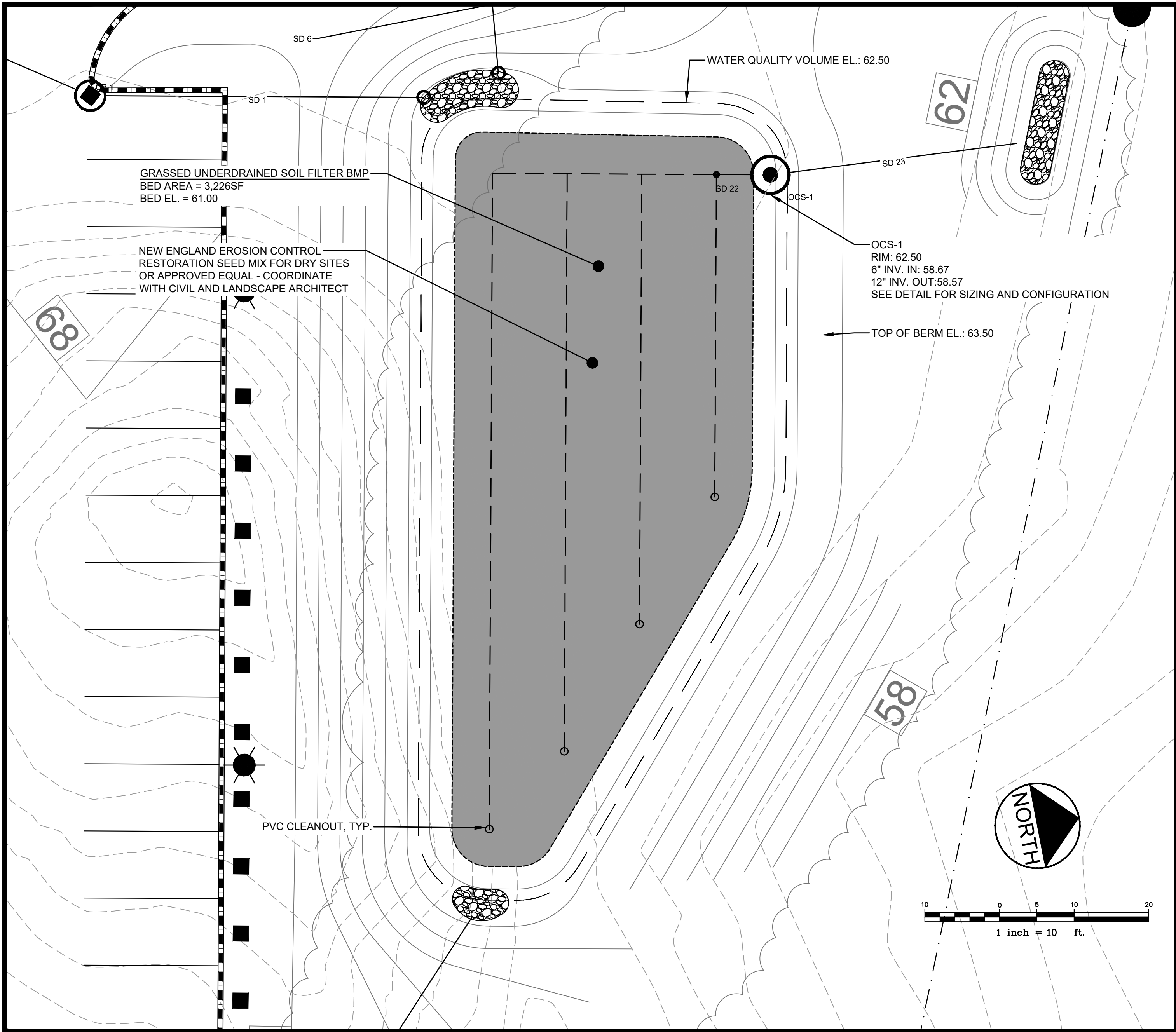
U:\3824.01_Portland Homeless Center_Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-SWM.dwg - 8/12/2021 8:55 AM

Rev.	Date	Revision	Design: SRB Draft: CDD Date: JUNE 2021 Checked: SRB Scale: AS NOTED Job No.: 3824.01 File Name: 382401-SWM.dwg	 GORRILL PALMER Relationships. Responsiveness. Results. www.gorrillpalmer.com 207.772.2515	Drawing Name: STORMWATER MANAGEMENT PLAN - BMP PLAN VIEWS	Drawing No. C-7.1
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS			Project: Homeless Services Center 654 Riverside Street, Portland, Maine	
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW			Client/Owner: DC Predevelopment LLC 100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673	

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\2 - CAD DWG\382401-SWM.dwg - 8/12/2021 9:09 AM

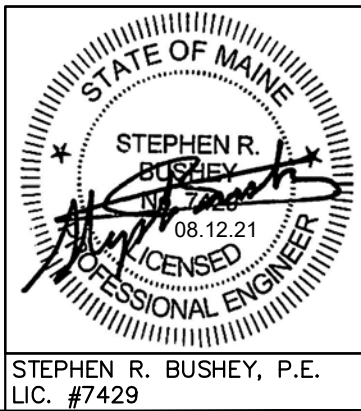


FOCALPOINT BIO-FILTRATION SYSTEM
SCALE: 1" = 10'



GRASSED UNDERDRAINED SOIL FILTER
SCALE: 1" = 10'

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



Rev.	Date	Revision

Rev.	Date	Revision
2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

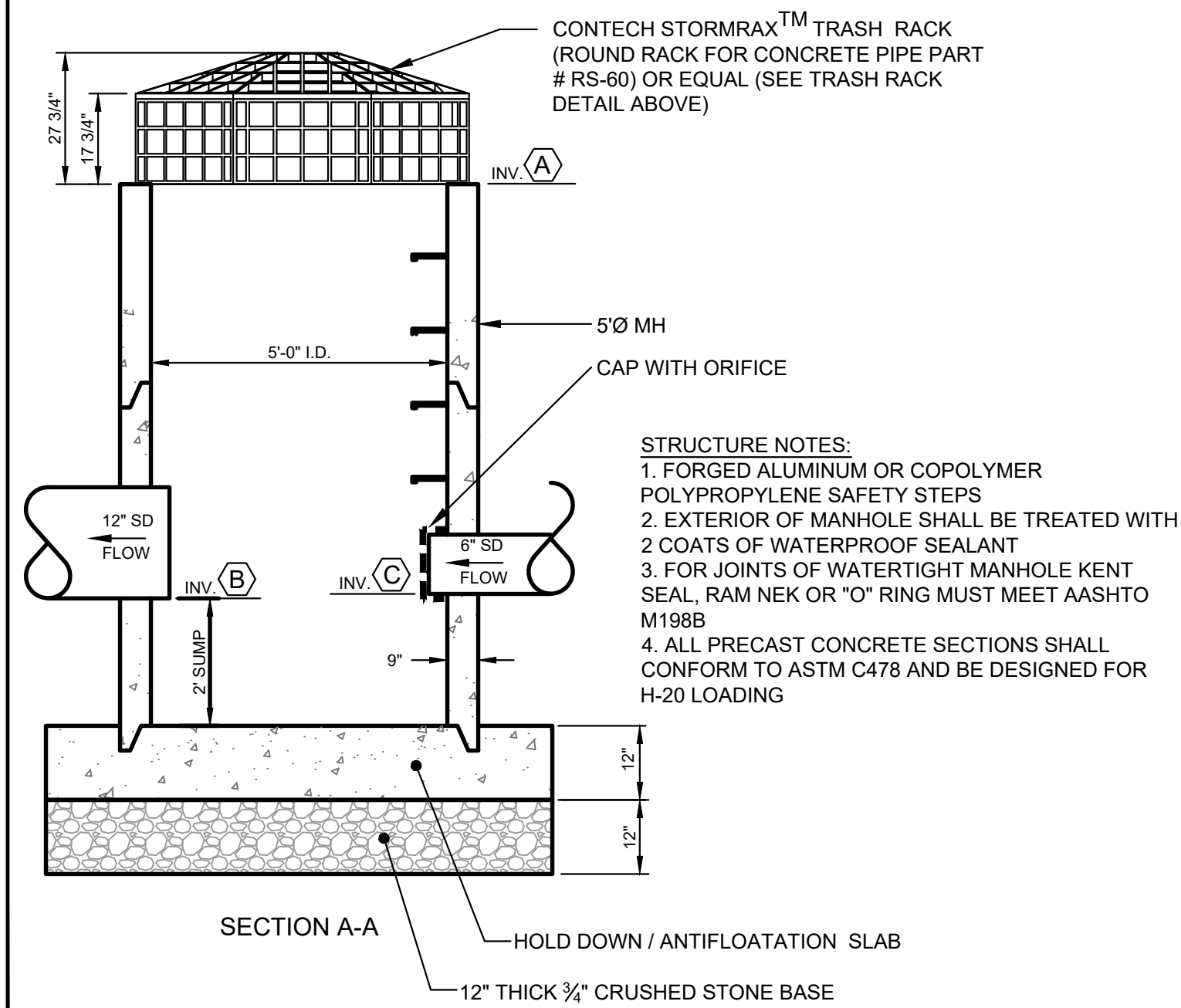
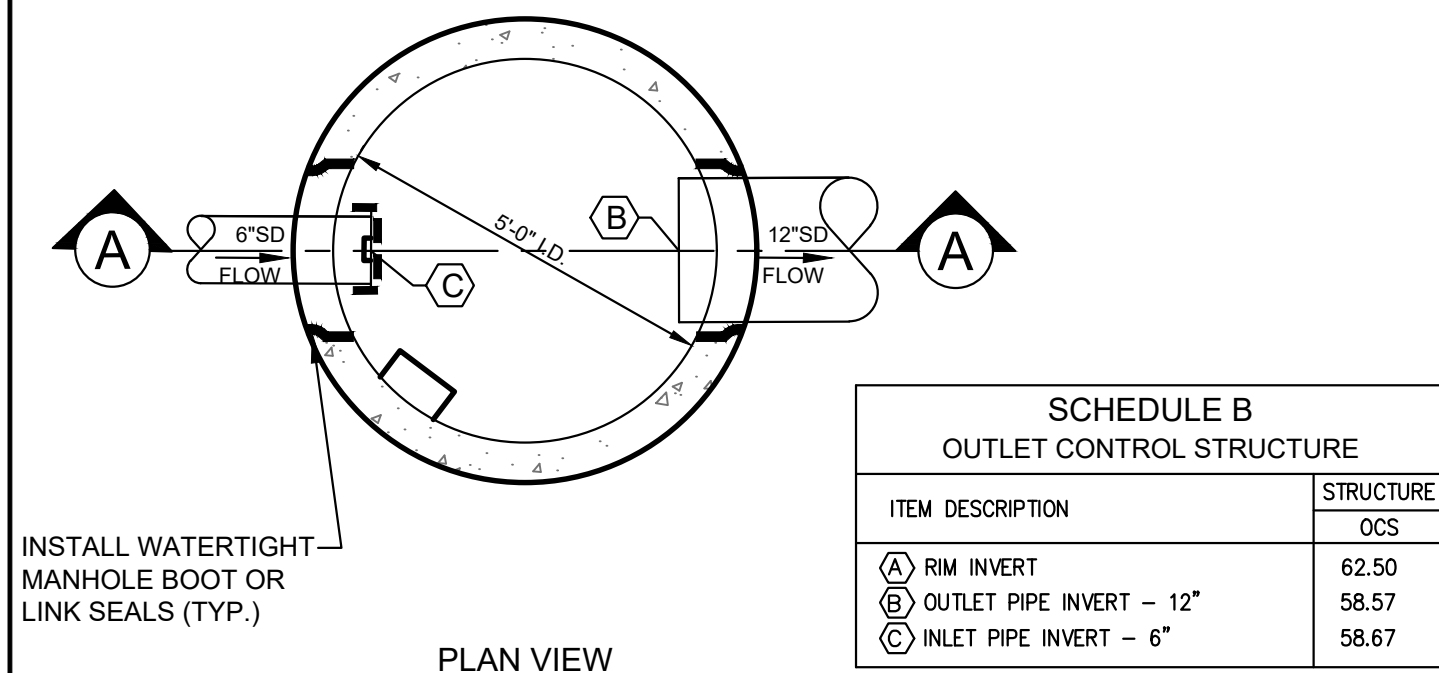
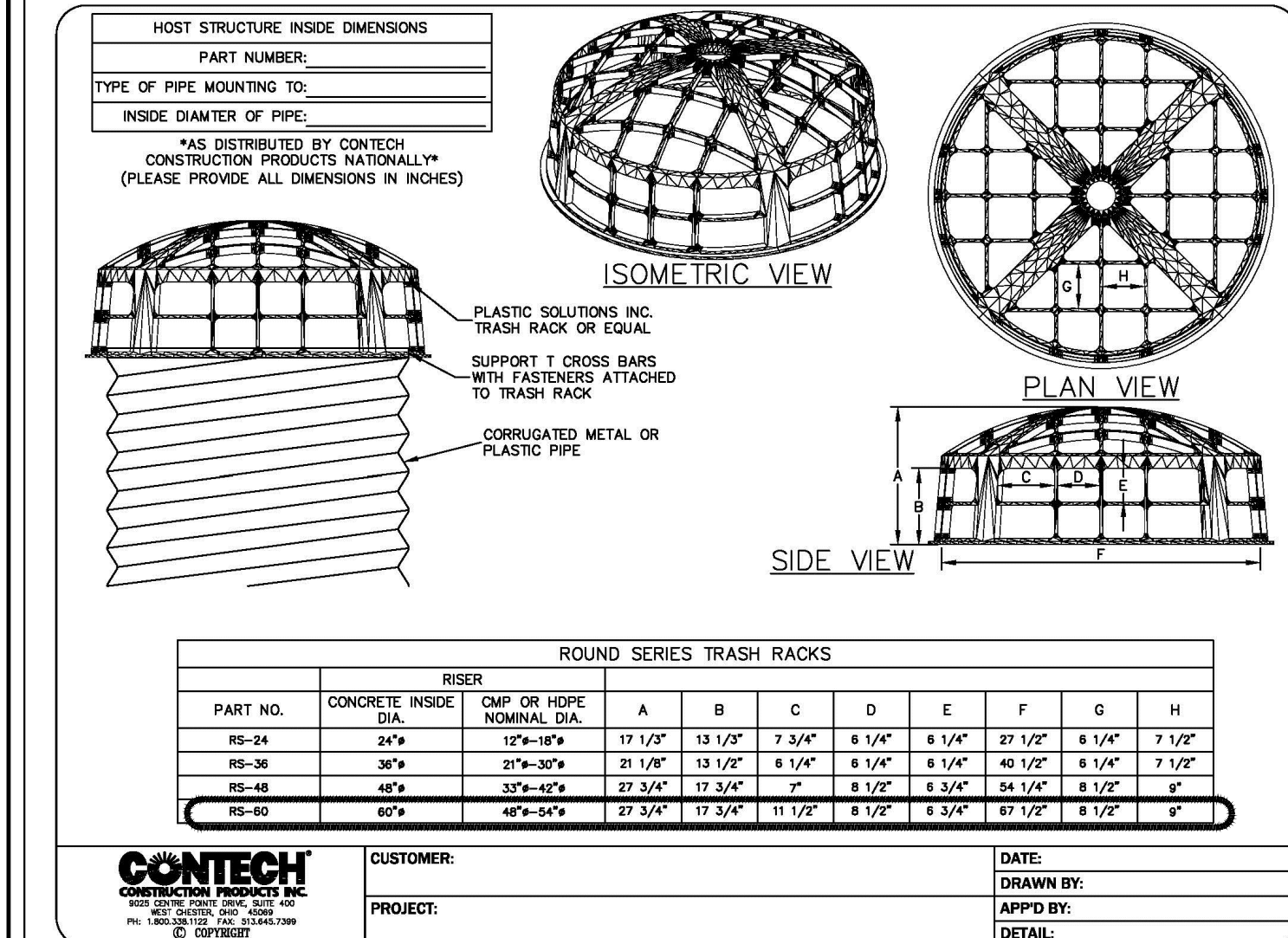
Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-SWM.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		



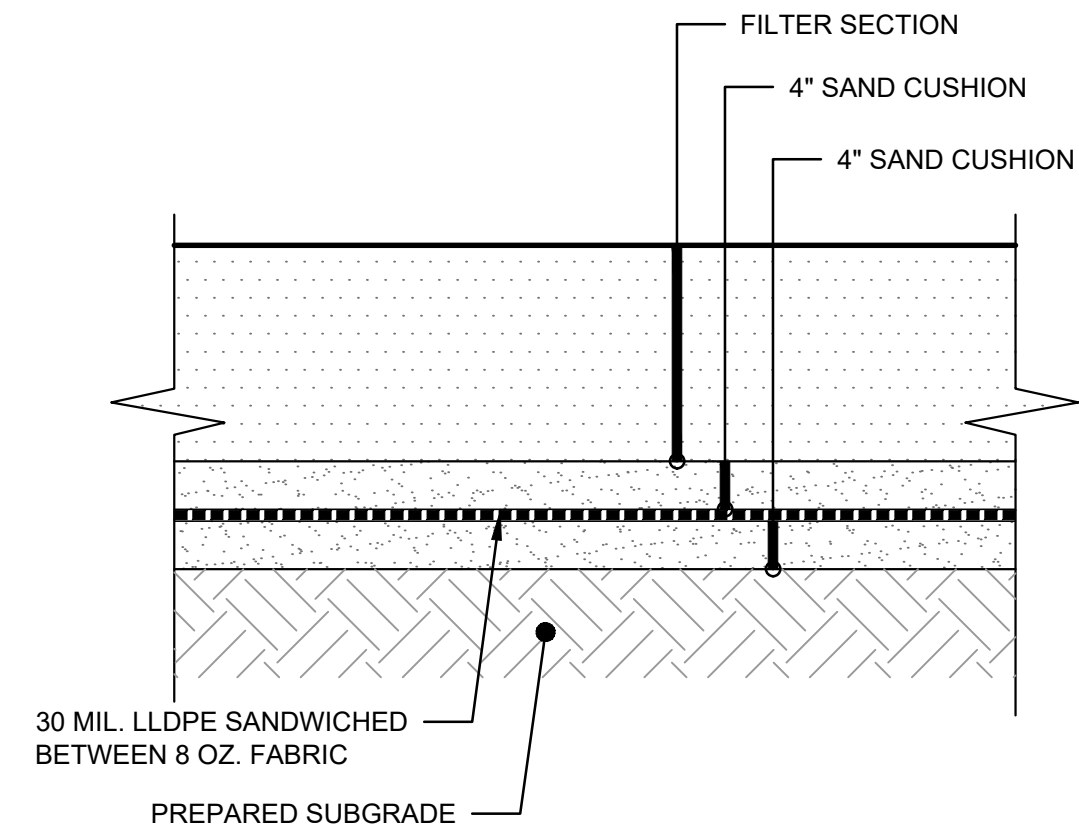
Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

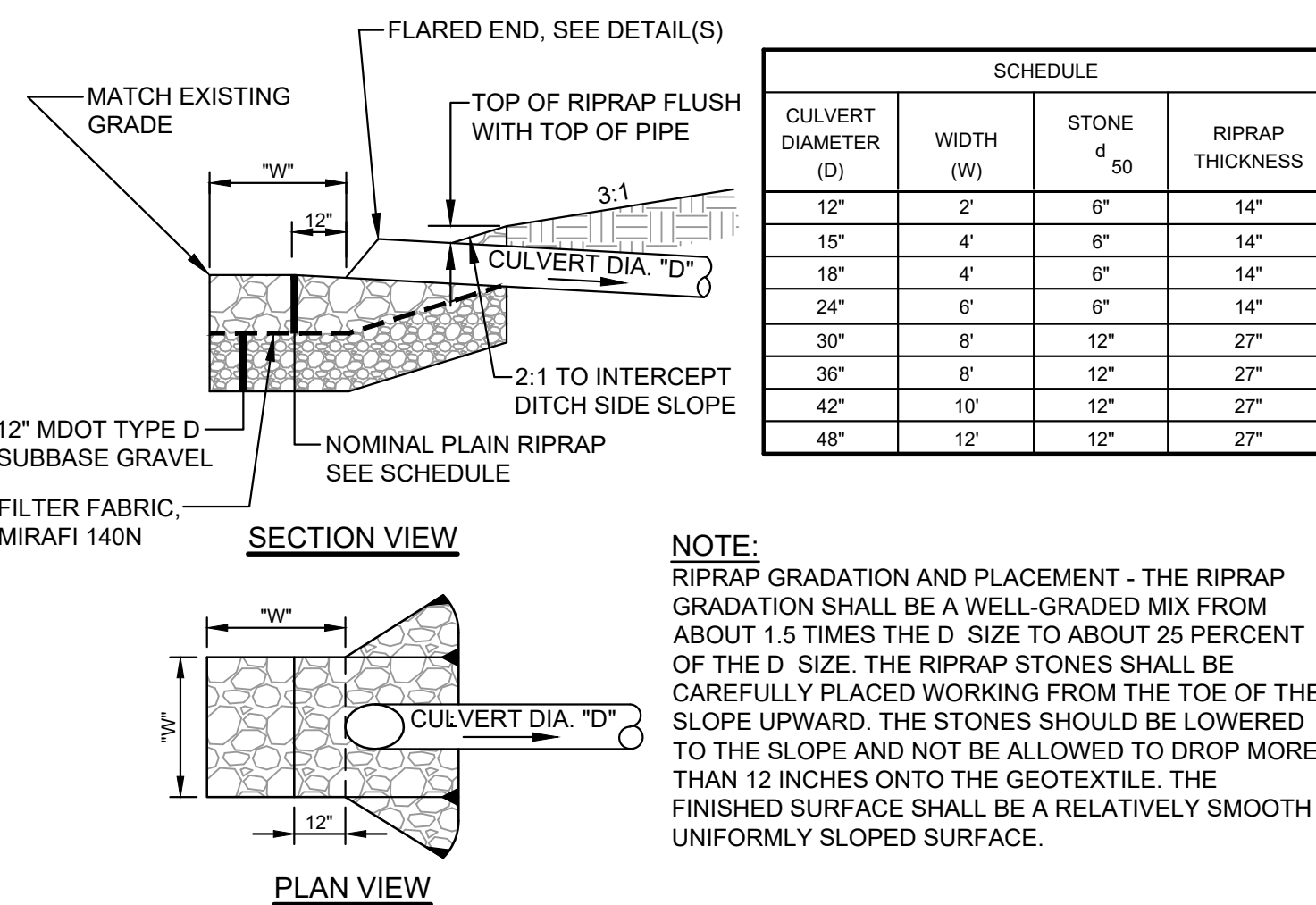
Drawing No.
C-7.2



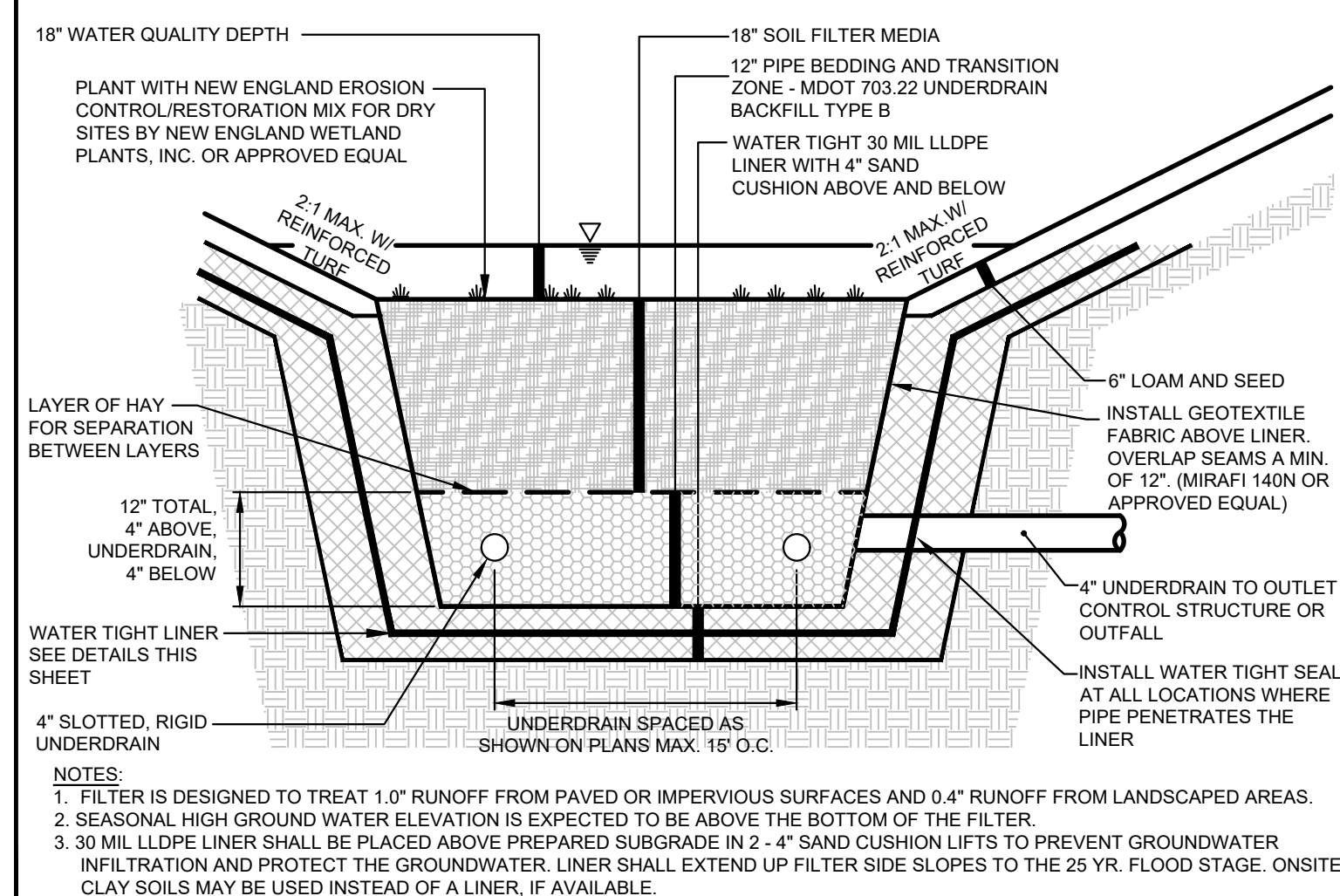
(A) 5'-0" PRECAST OUTLET CONTROL STRUCTURE 1 DETAIL
N.T.S.



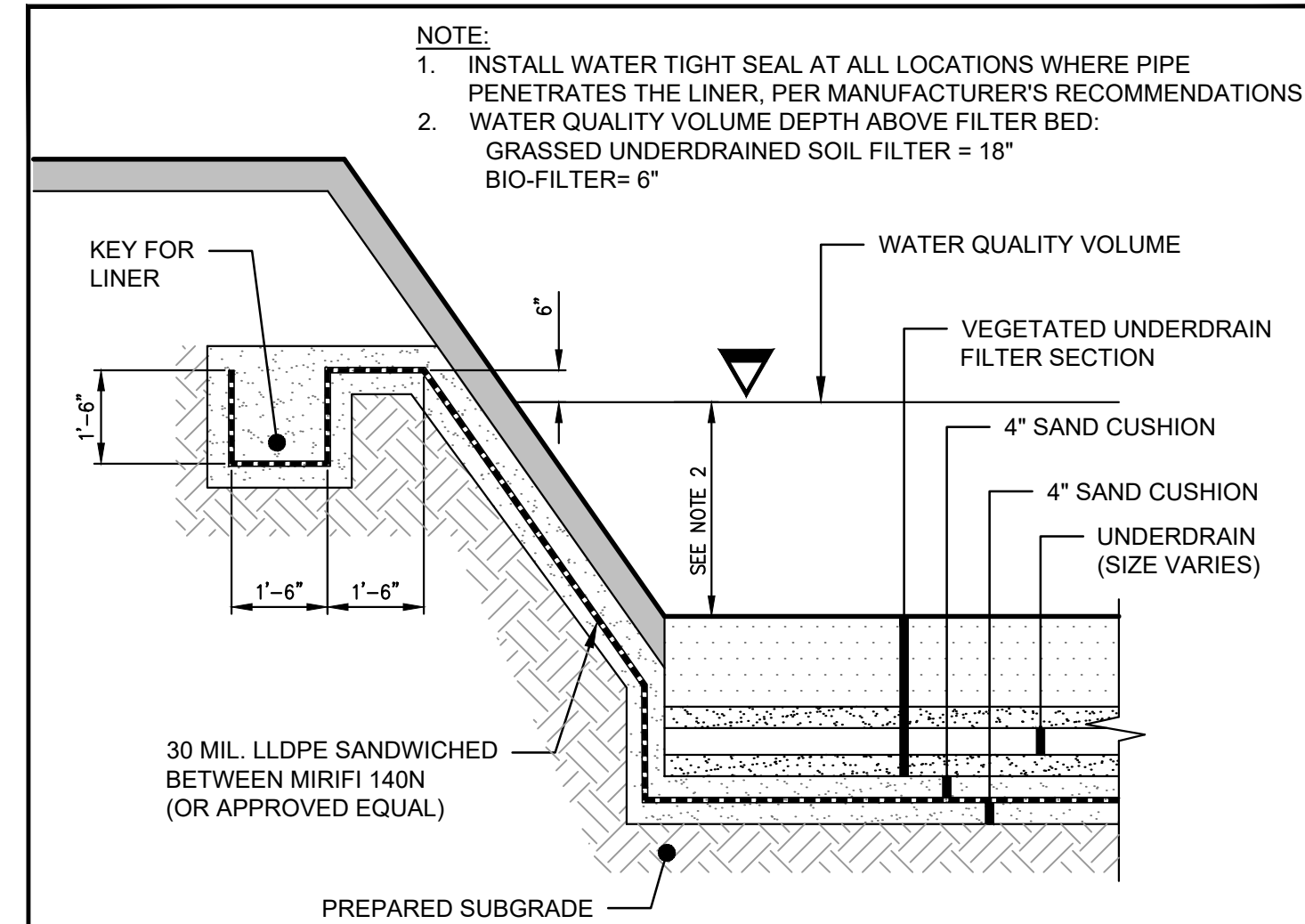
**TYPICAL DETAIL IMPERMEABLE LINER
UNDERDRAINED WATER QUALITY FILTER**
N.T.S.



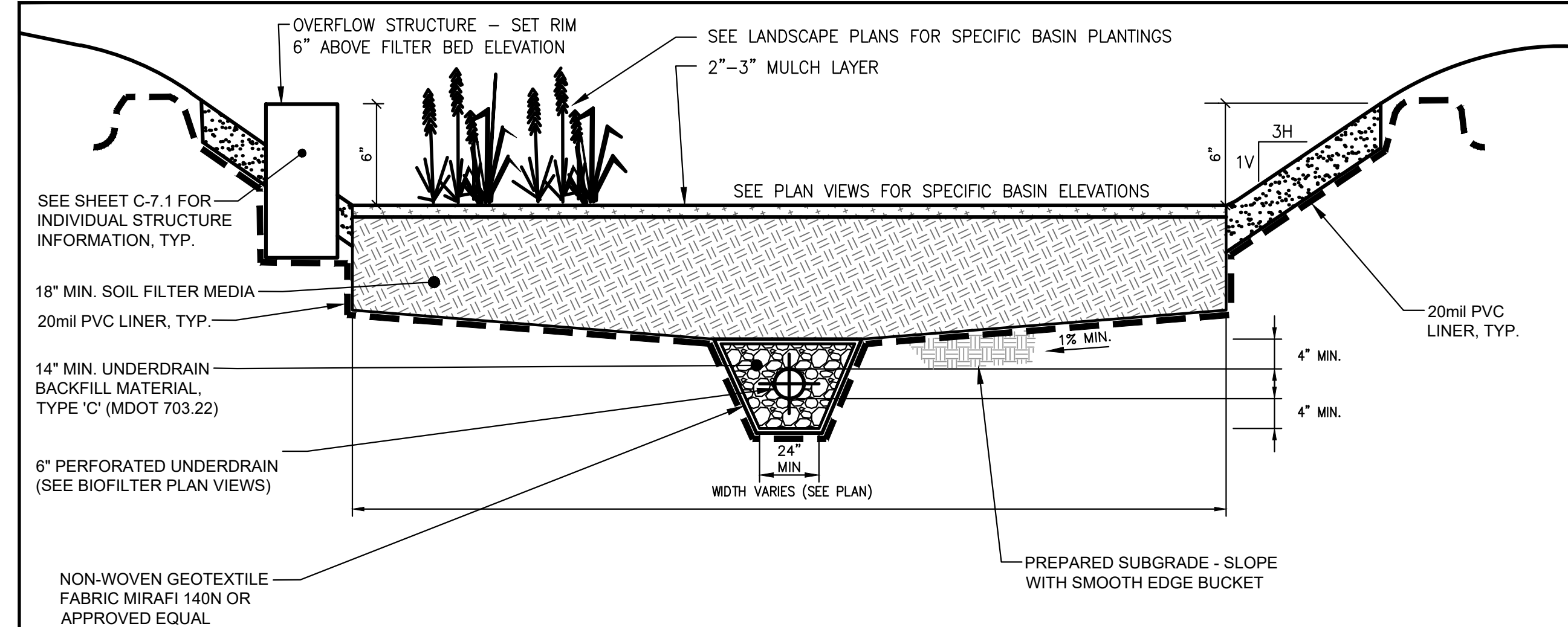
(C) RIPRAP INLET APRON DETAIL
N.T.S.



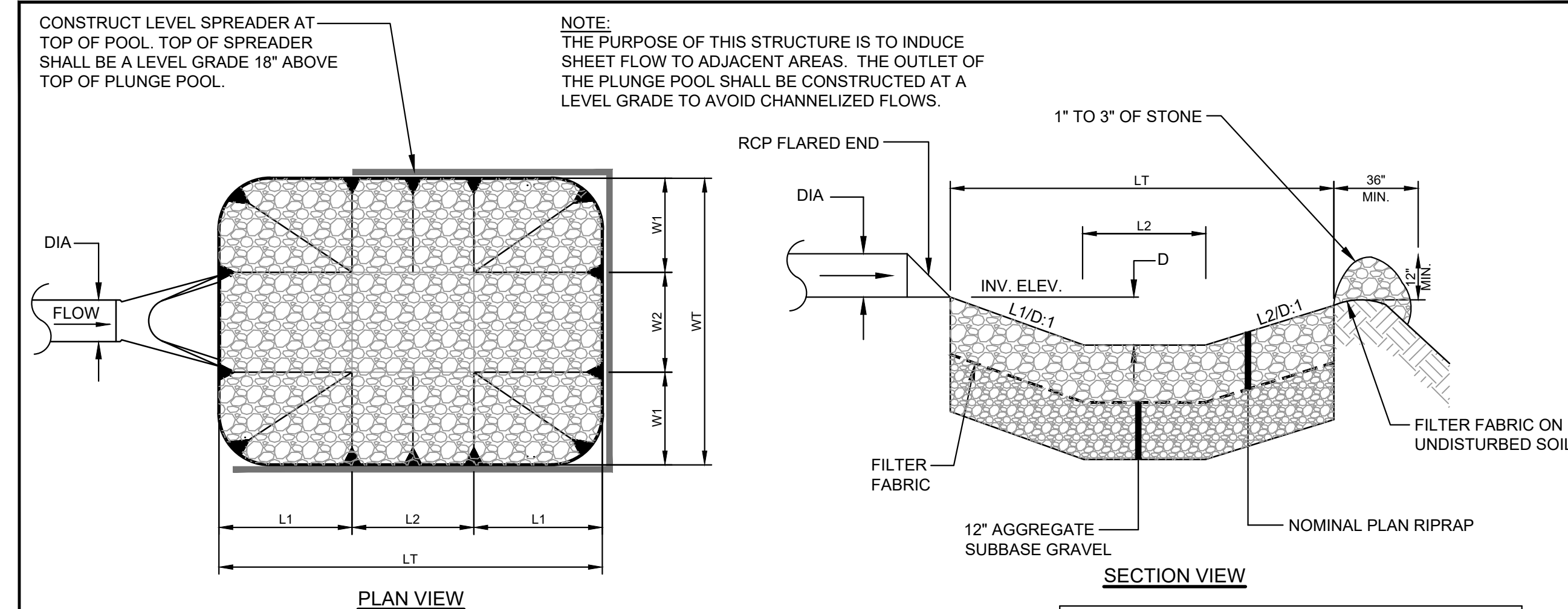
**TYPICAL SECTION FOR
UNDERDRAINED GRASSED SOIL FILTER W/ LLDPE LINER**
N.T.S.



**TYPICAL DETAIL LLDPE LINER
SIDE SLOPE AND TOP "KEY"**
N.T.S.

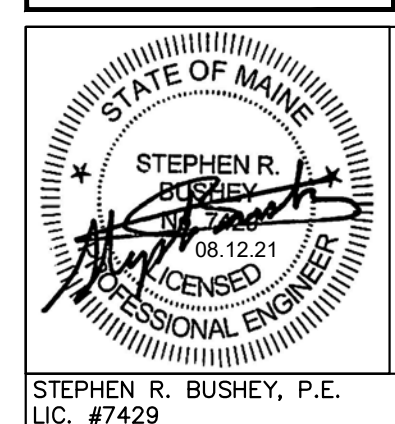


(G) BIORETENTION FILTER (RAIN GARDEN)
N.T.S.



(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.



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

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



Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

Drawing Name:

STORMWATER MANAGEMENT DETAILS

Project:

Homeless Services Center
654 Riverside Street, Portland, Maine

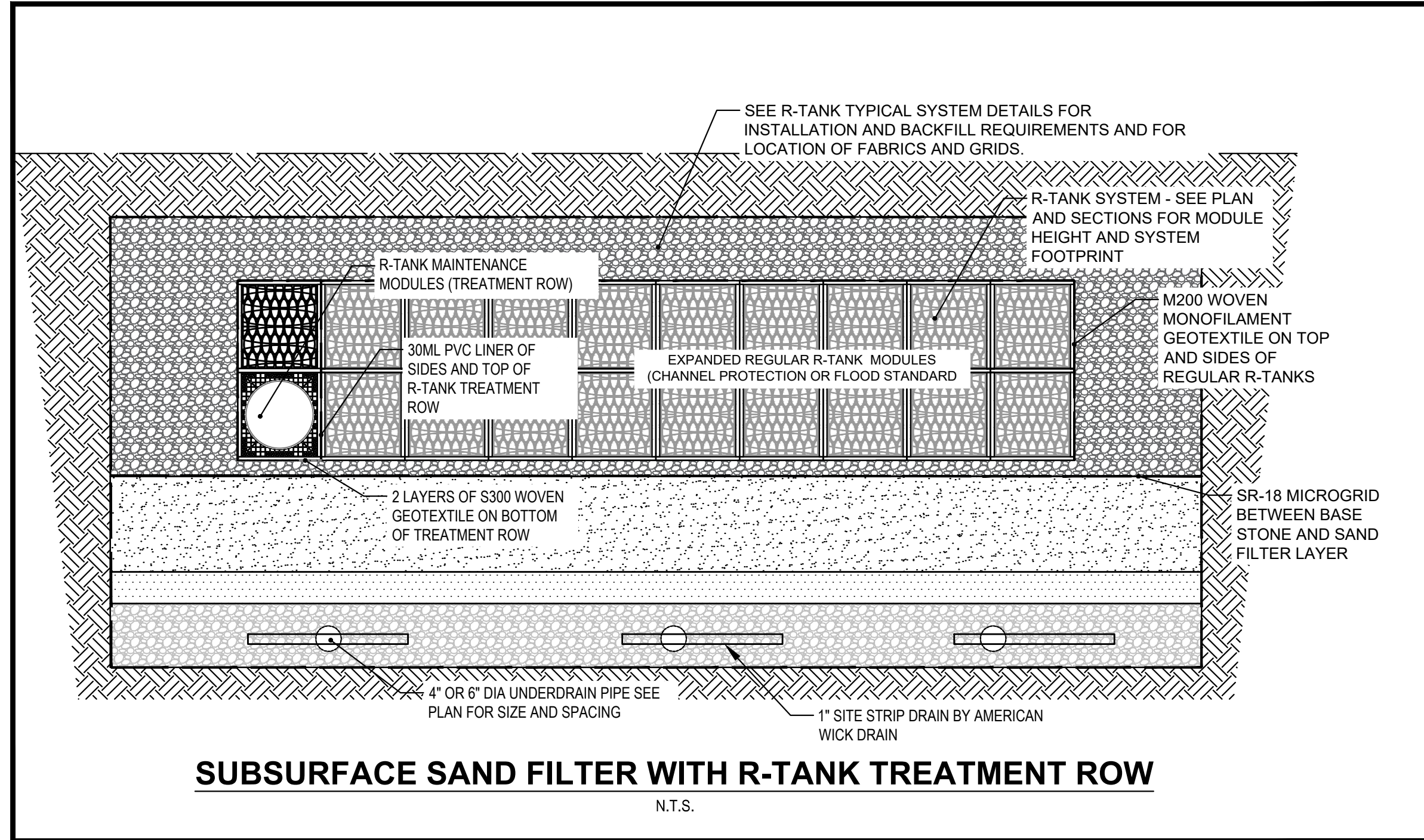
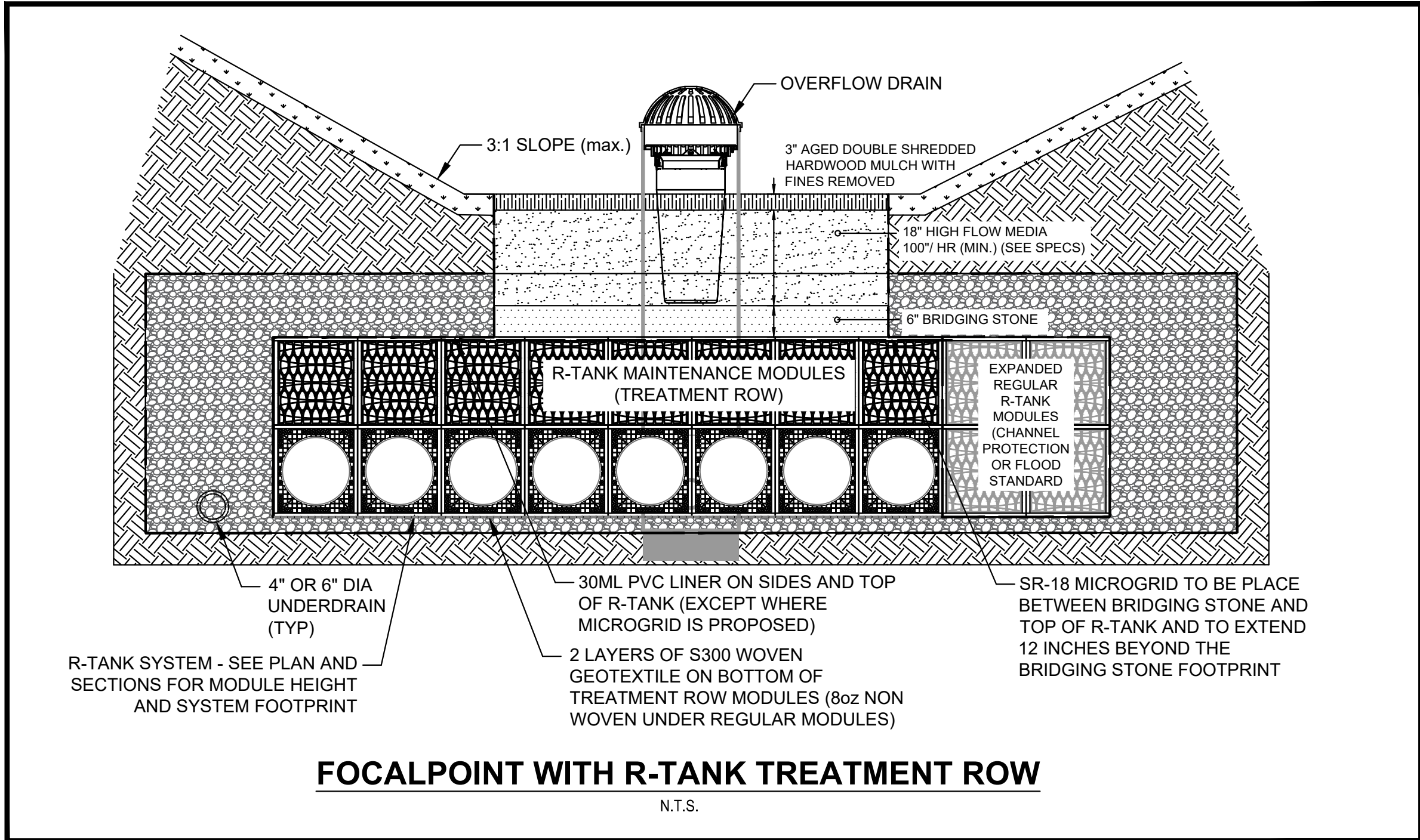
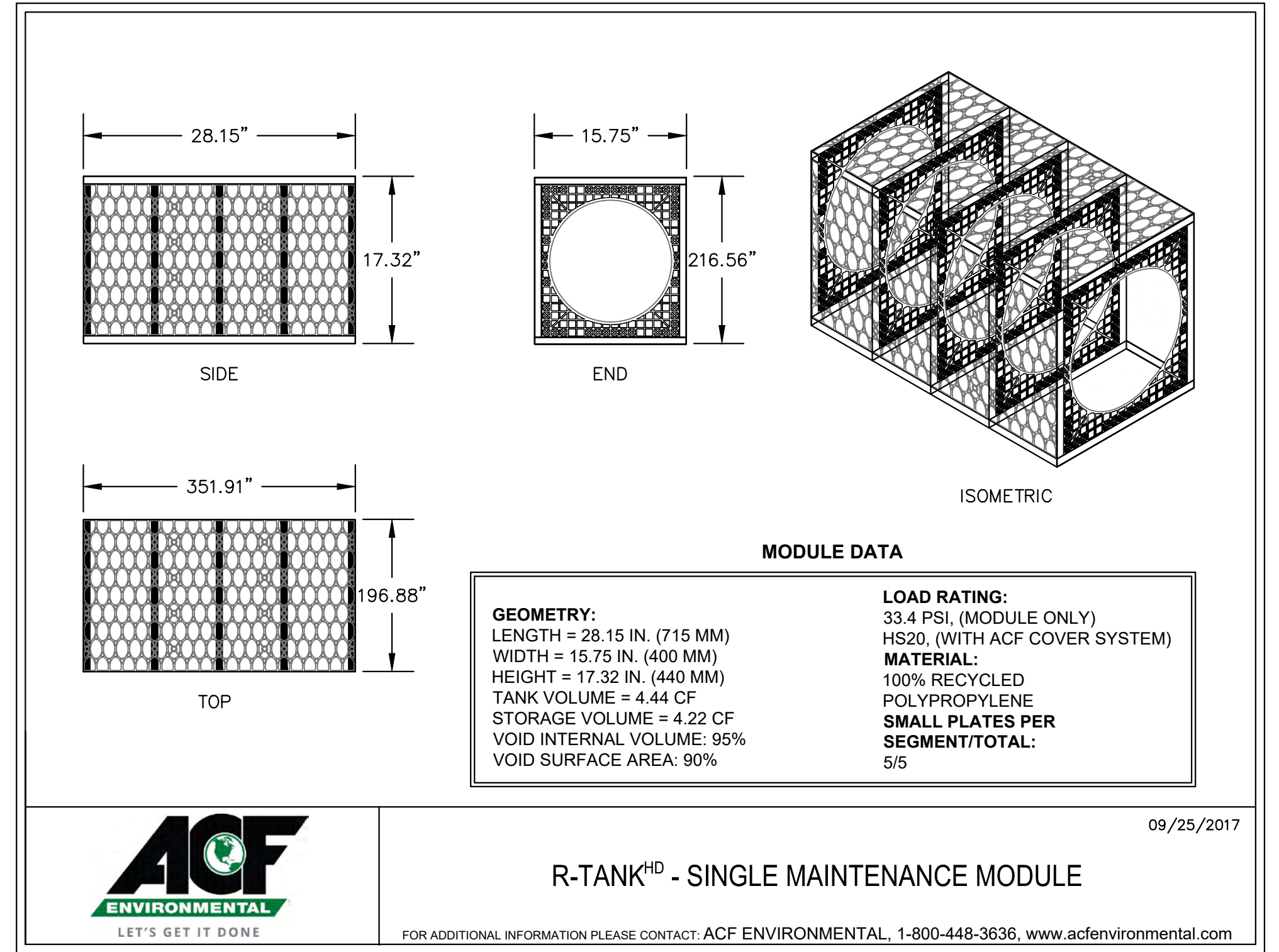
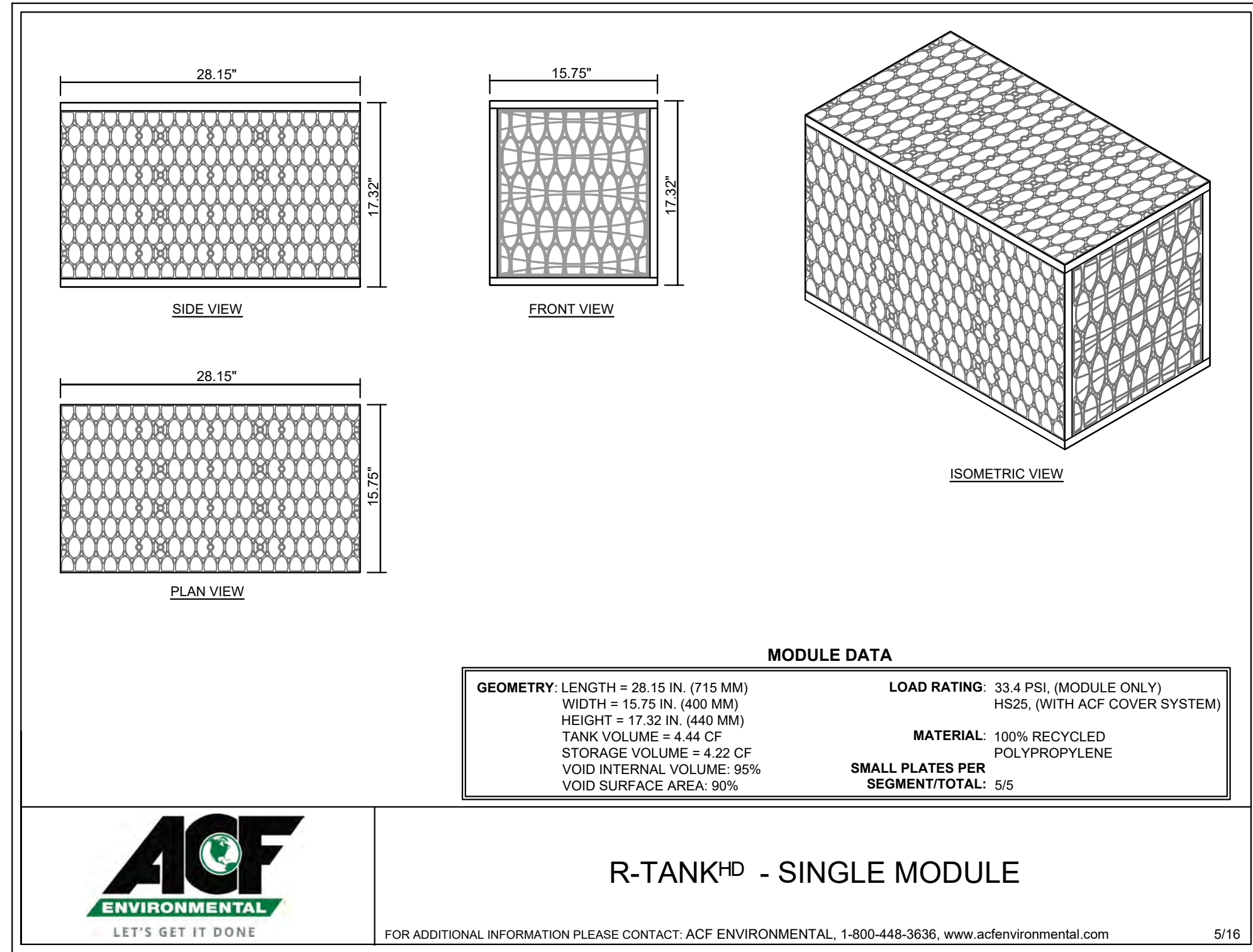
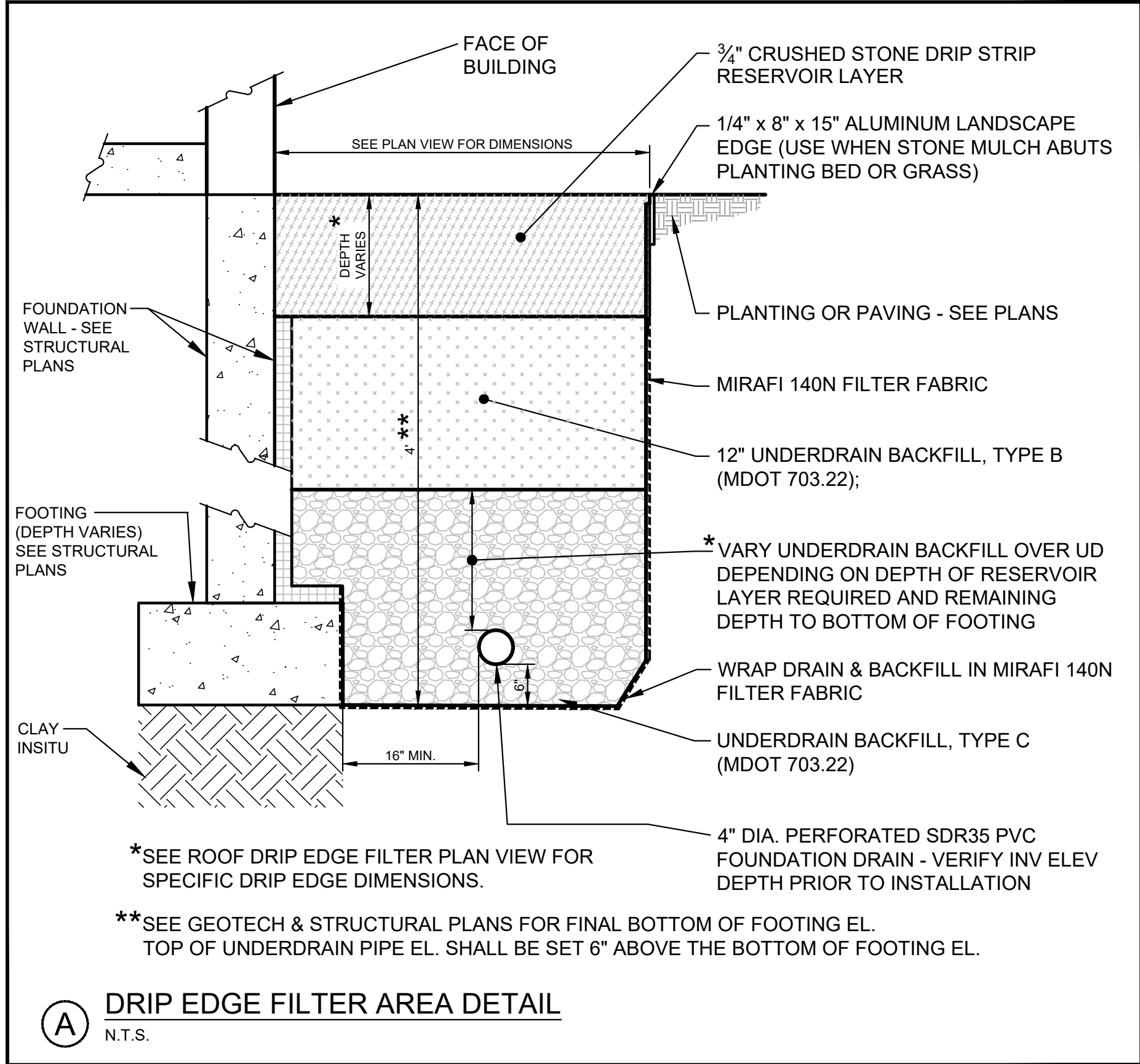
Client/Owner:

DC Predevelopment LLC
100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

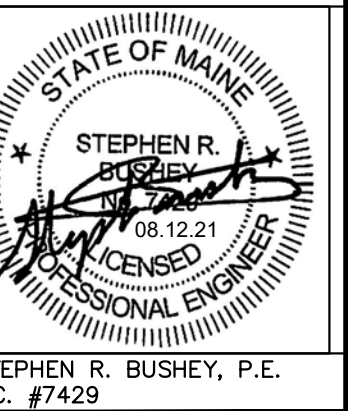
Drawing No.

C-7.3

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-SWM.dwg - 8/12/2021 9:13 AM



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



Rev.	Date	Revision

Rev.	Date	Revision
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-SWM.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		



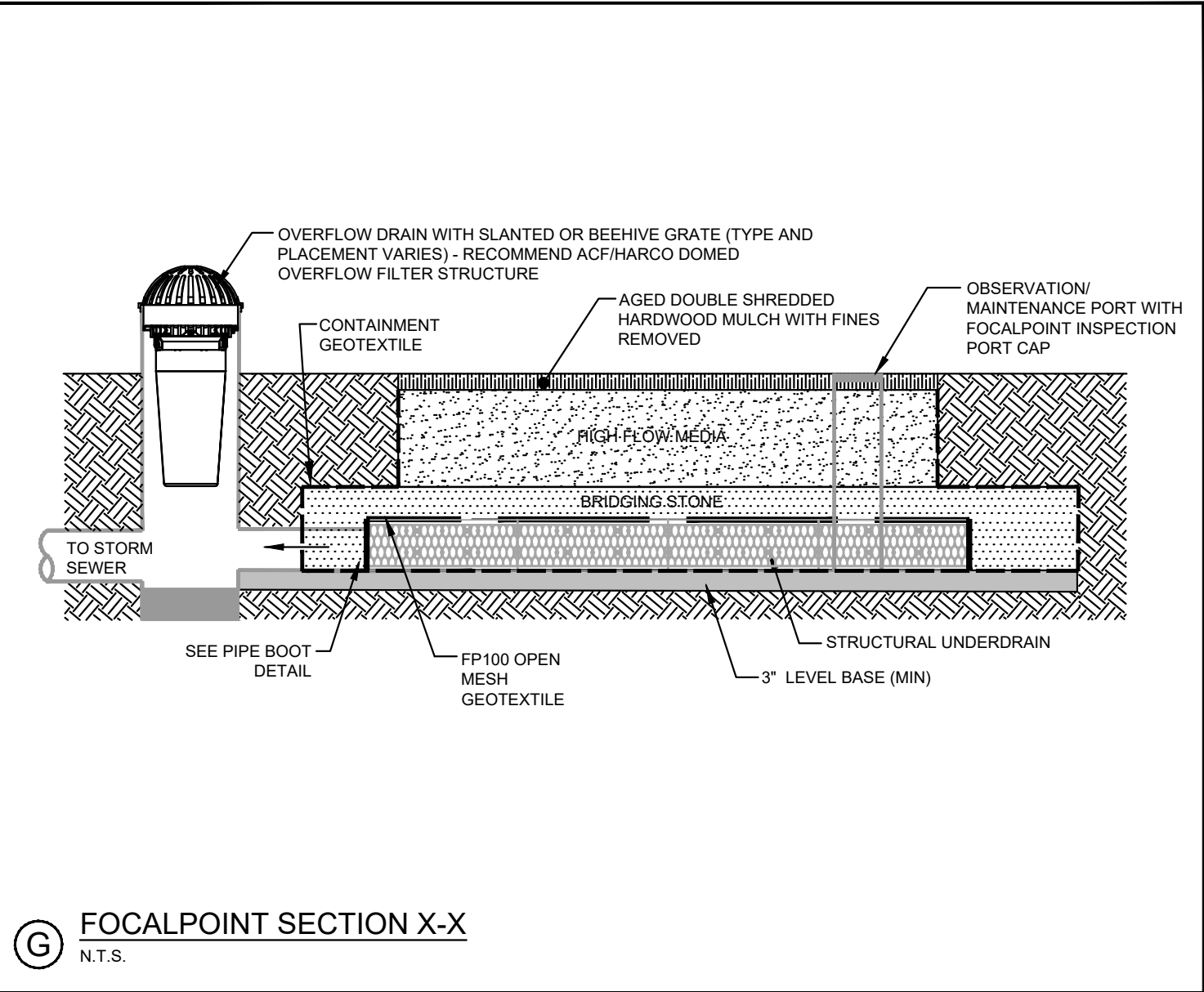
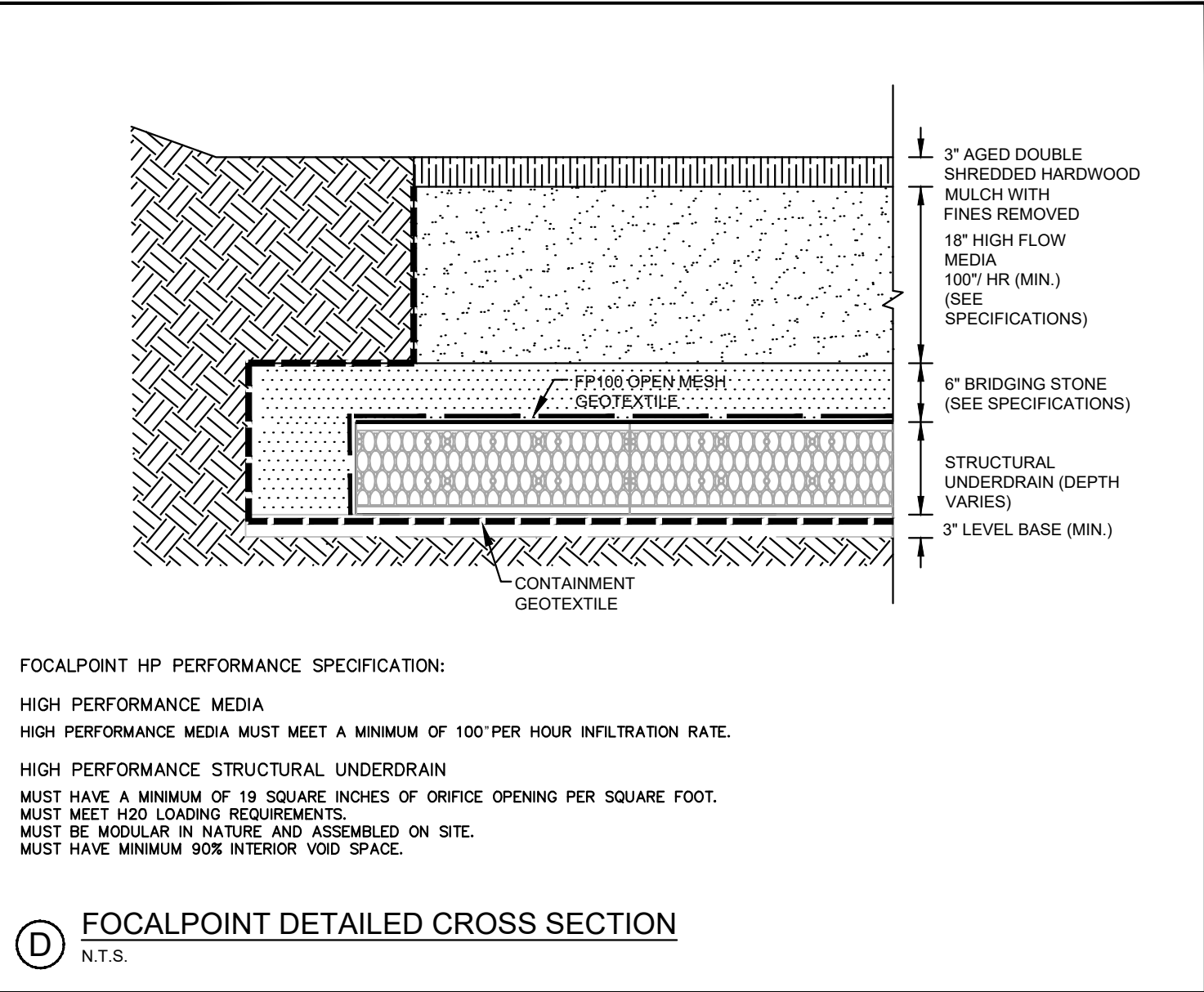
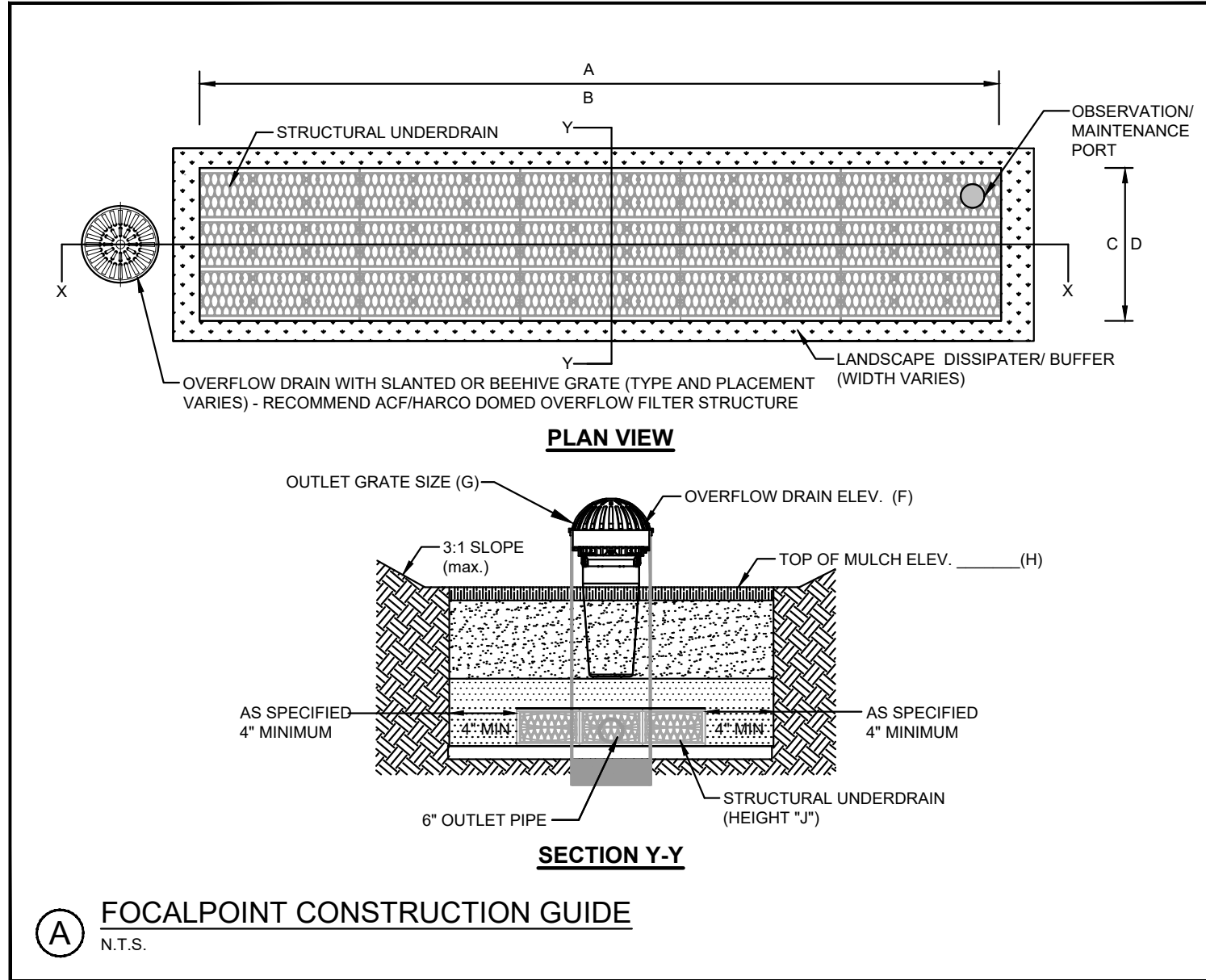
Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

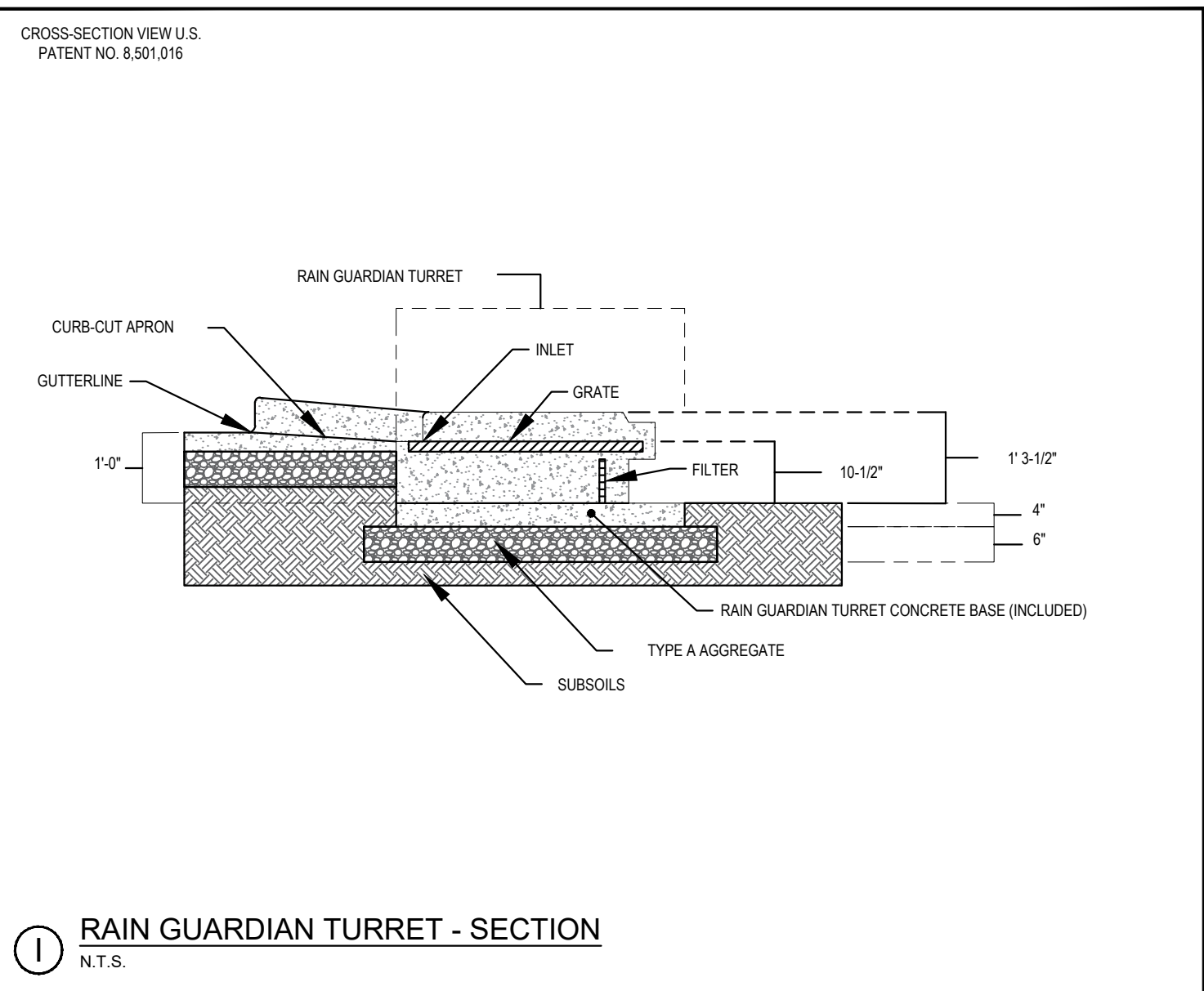
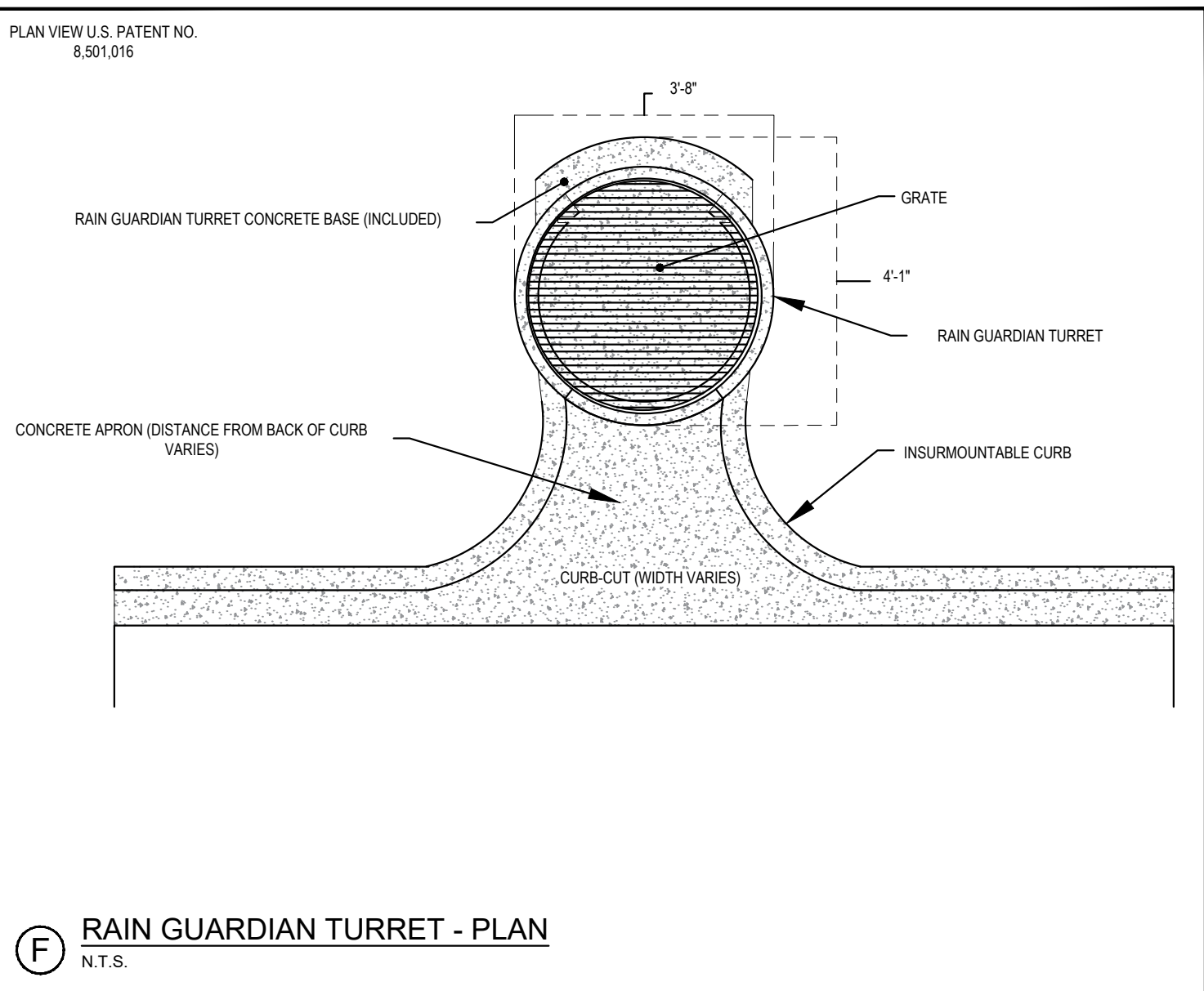
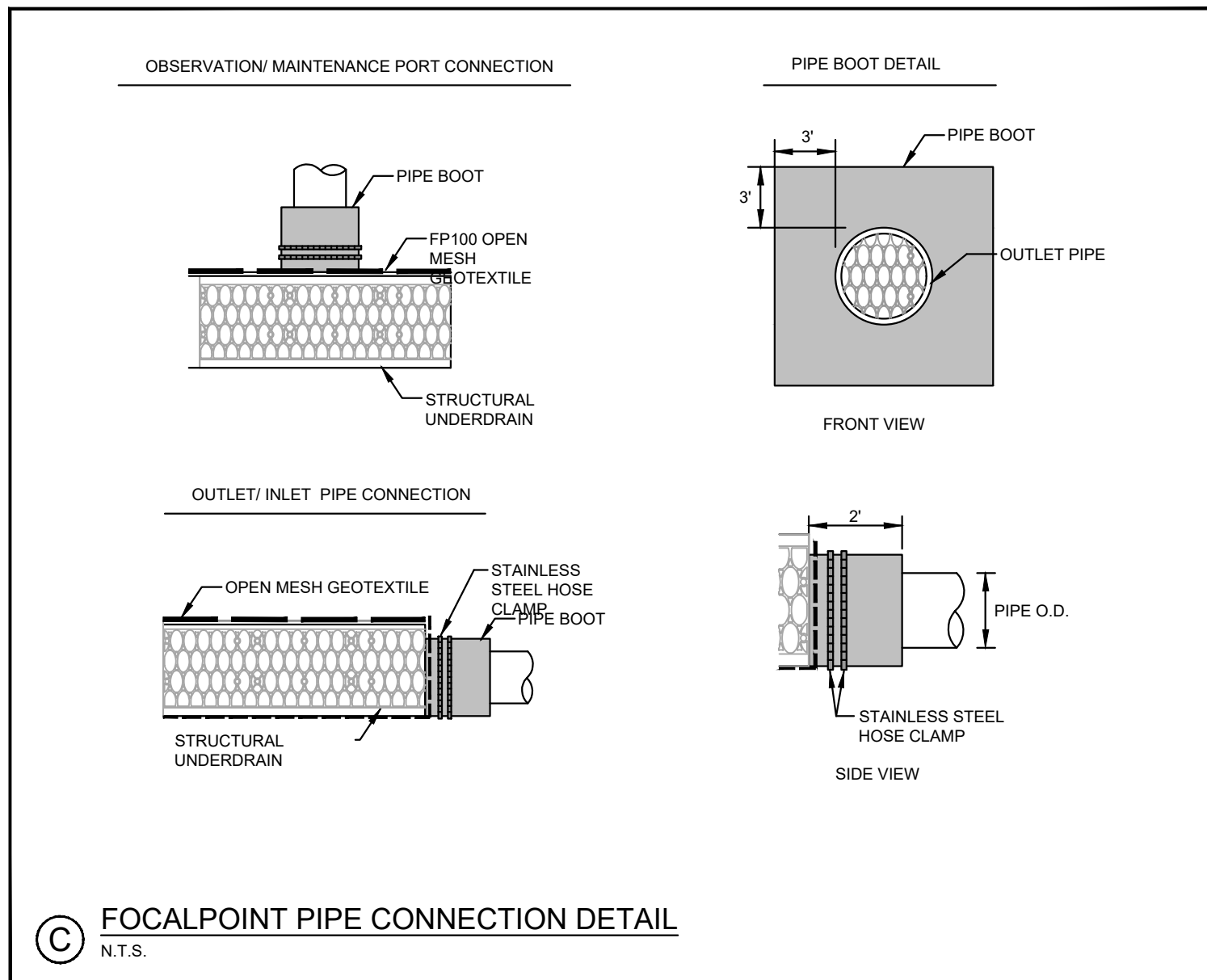
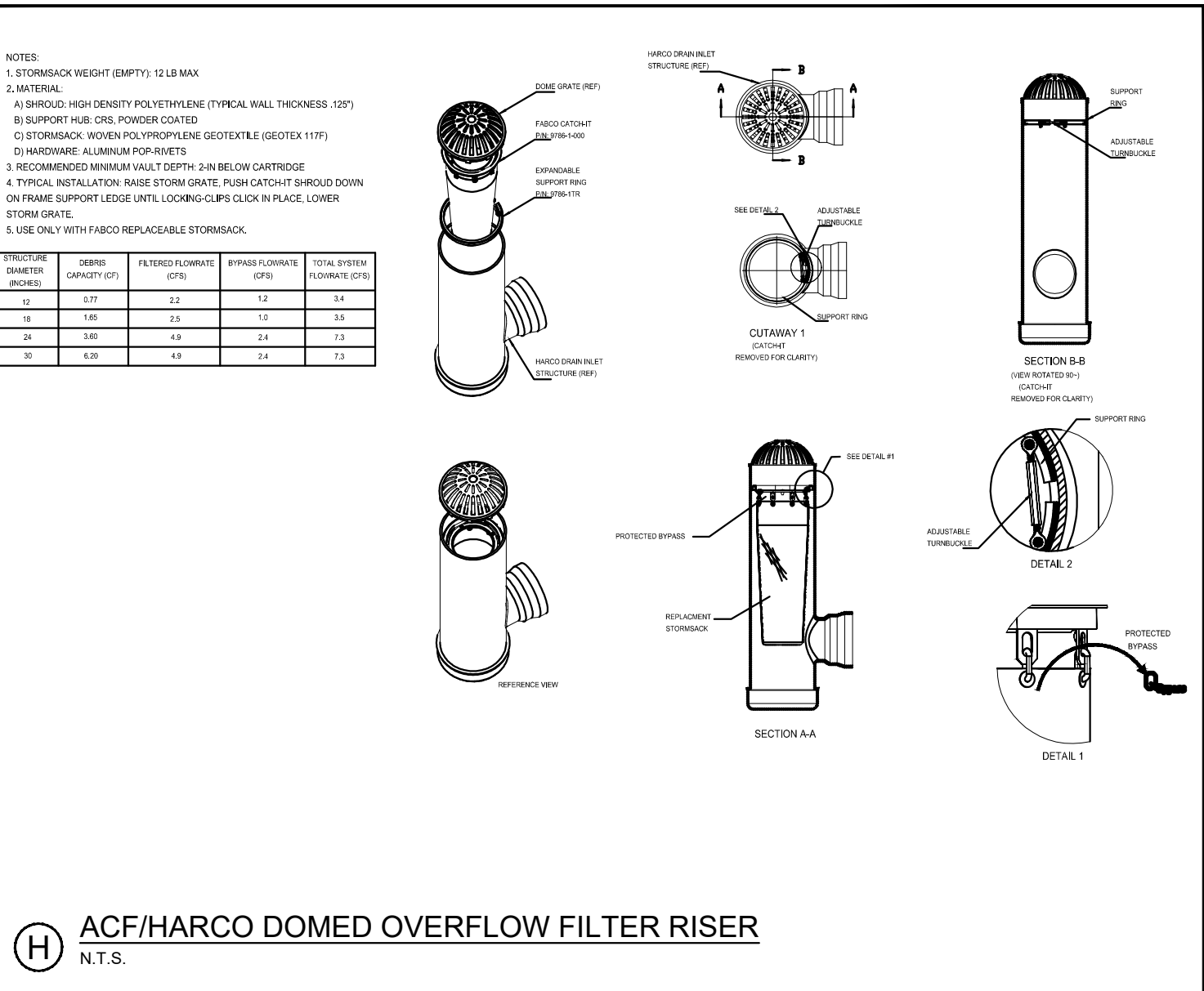
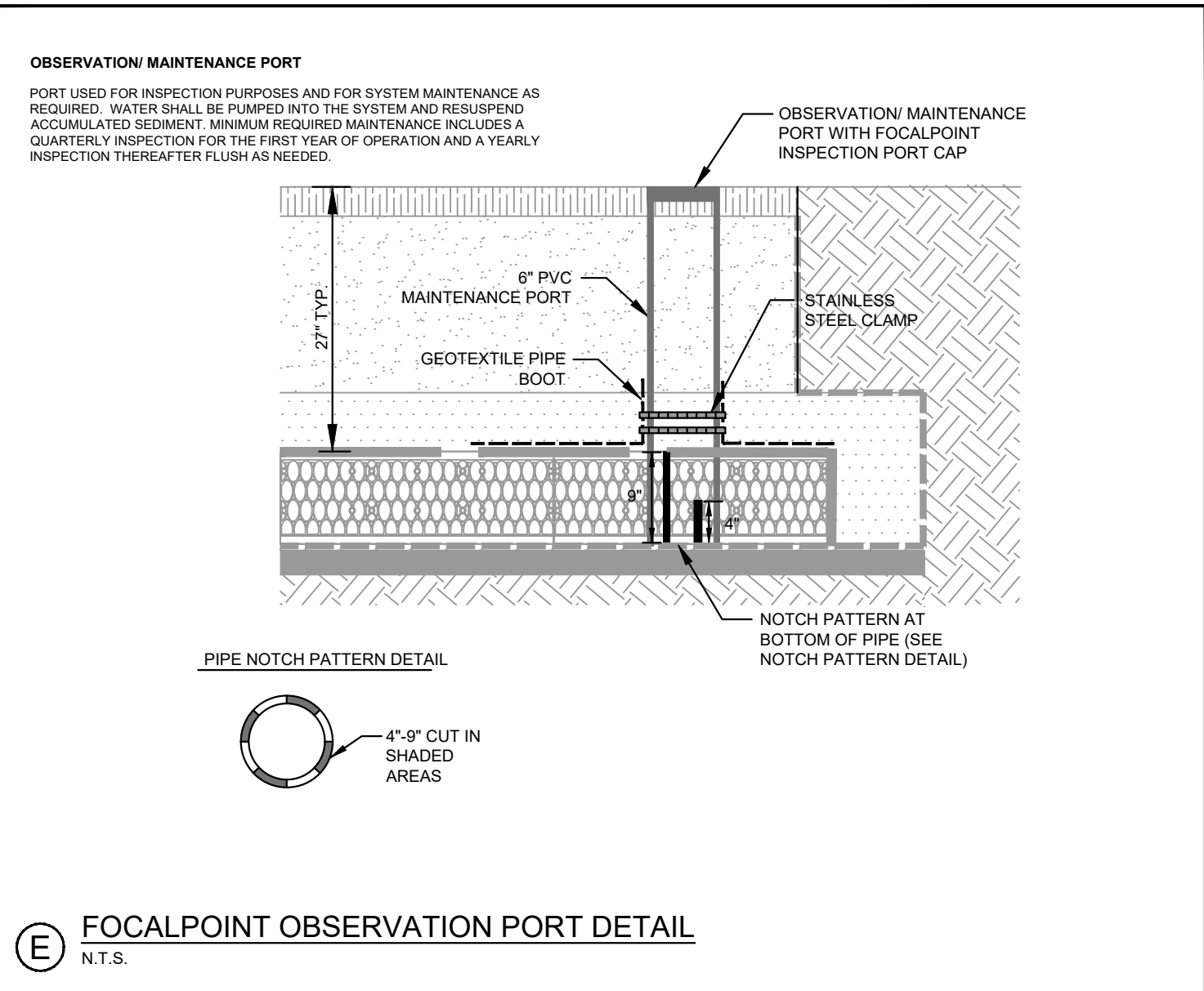
Drawing No.

C-7.4

U:\3824.01-Portland Homeless Center-Developer Collaborative-Portland, ME\Z - CAD\DWG\382401-SWM.dwg - 8/12/2021 9:14 AM

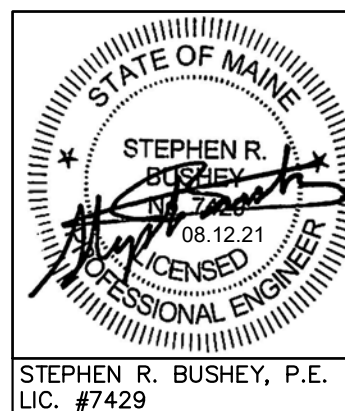


FOCALPOINT KEY DIMENSIONAL DATA		
FOCALPOINT ID		FP-1
A	FOCALPOINT LENGTH	6.67'
B	# UNDERDRAIN LONG	1
C	FOCALPOINT WIDTH	3.0'
D	# UNDERDRAIN WIDE	1
E	WATER QUALITY VOLUME	N/A
F	OVERFLOW ELEVATION	21.60
G	OUTLET GRATE SIZE	12"
H	TOP OF MULCH	21.10
J	UNDERDRAIN HEIGHT	SINGLE



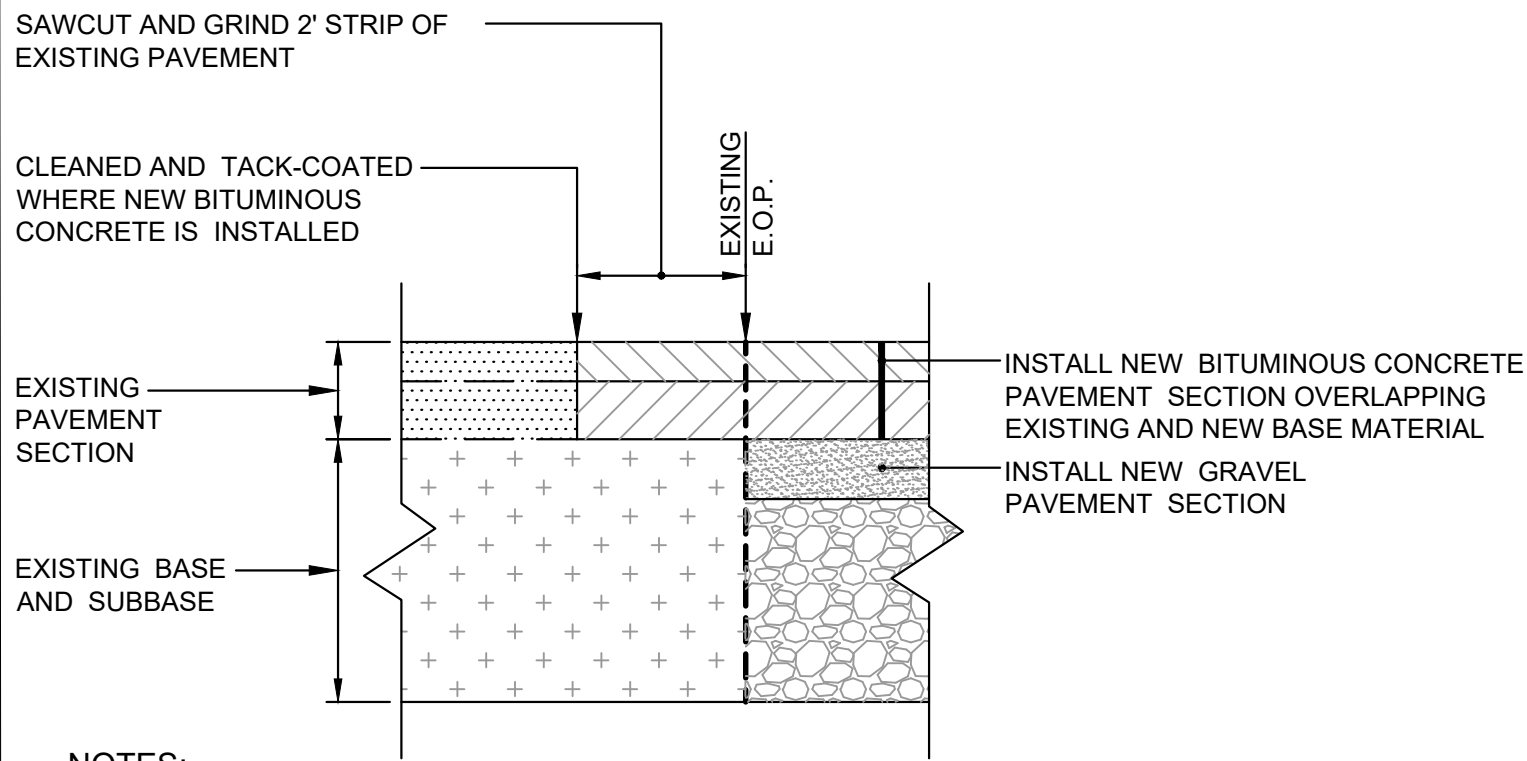
NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

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



Rev.	Date	Revision	Design: SRB	Draft: CDD	Date: JUNE 2021		Relationships. Responsiveness. Results. www.gorrillpalmer.com 207.772.2515	Drawing Name:	STORMWATER MANAGEMENT DETAILS	Drawing No. C-7.5
			Checked: SRB	Scale: AS NOTED	Job No.: 3824.01			Project:	Homeless Services Center 654 Riverside Street, Portland, Maine	
			File Name: 382401-SWM.dwg					Client/Owner:	DC Predevelopment LLC 100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673	

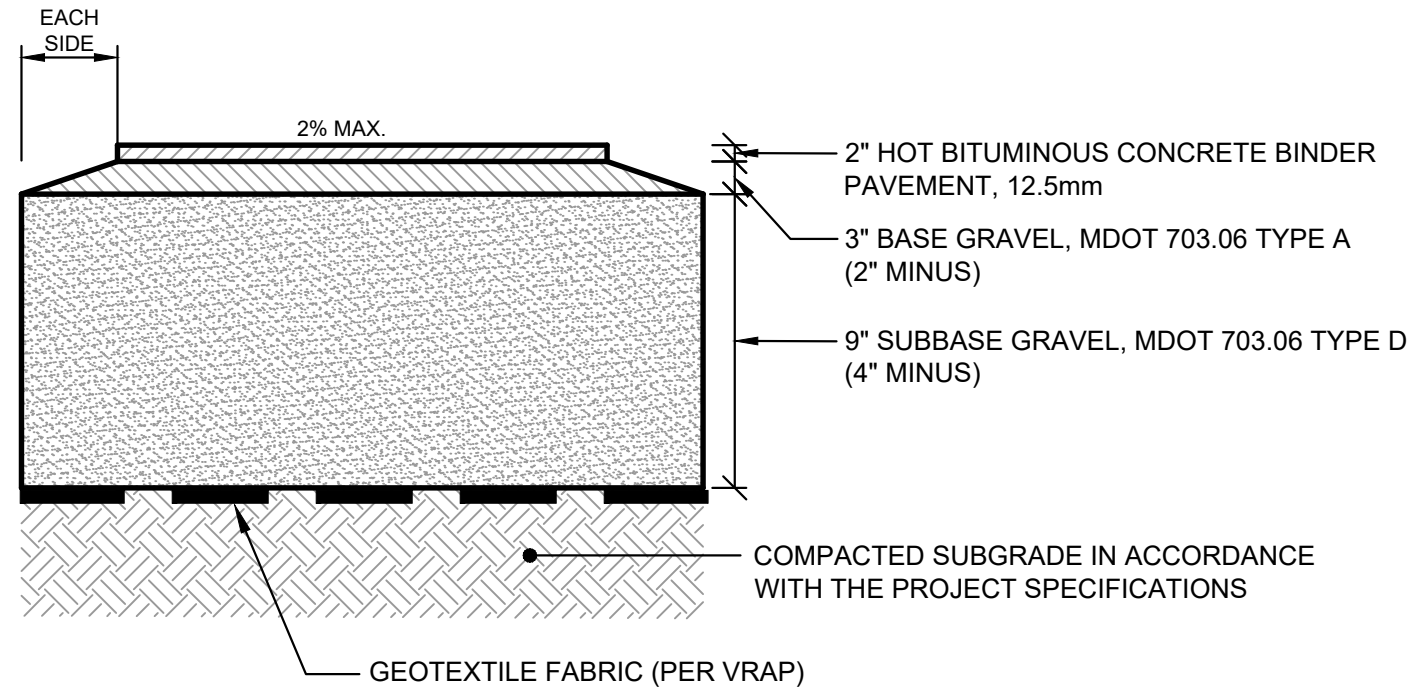
U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 8/12/2021 9:00 AM



- 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.

**TYPICAL PAVEMENT SECTION
NEW PAVEMENT ADJACENT TO EXISTING PAVEMENT**

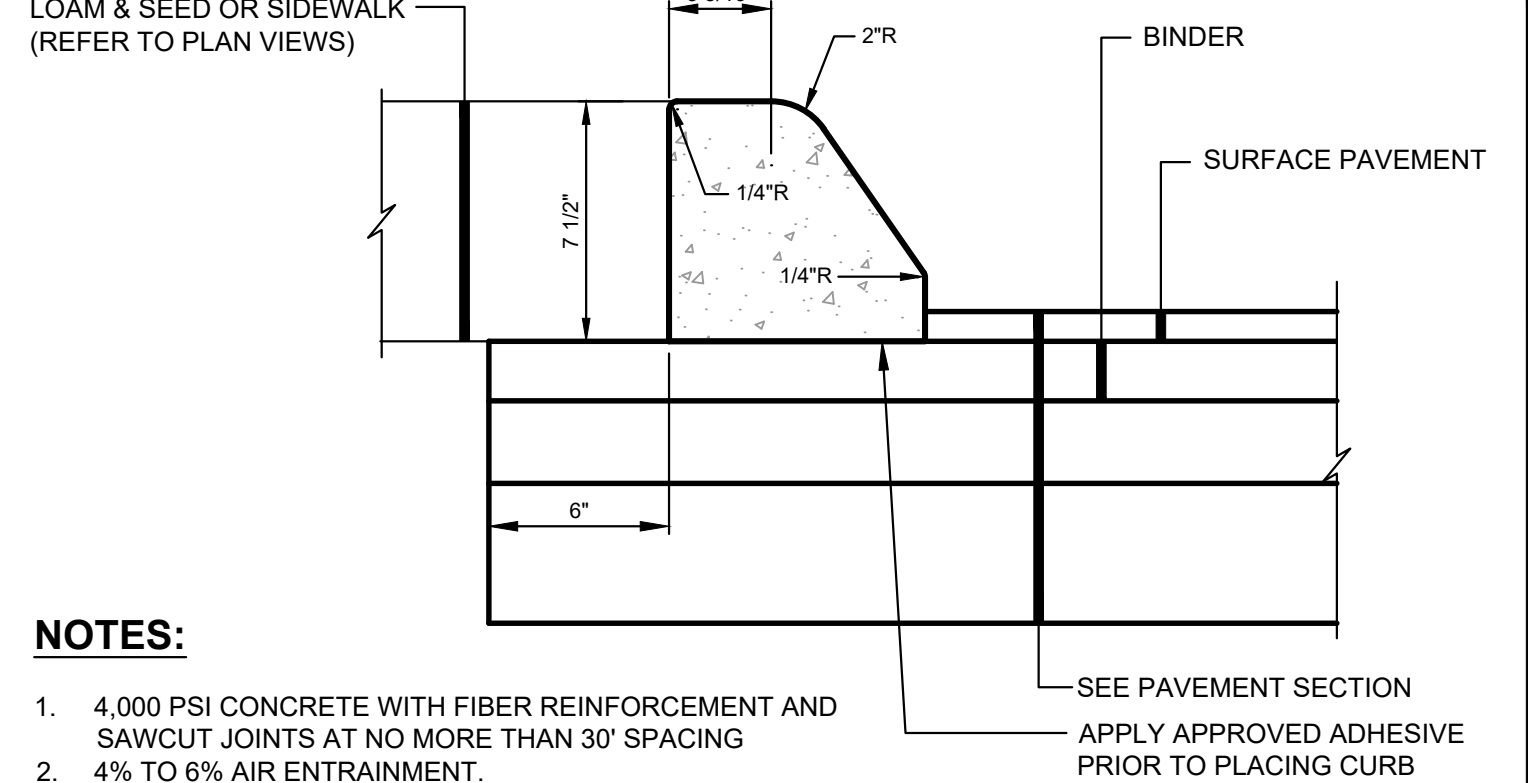
(A)
N.T.S.



- 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.

**BITUMINOUS CONCRETE SIDEWALK SECTION
FOR SITE INSTALLATION ONLY**

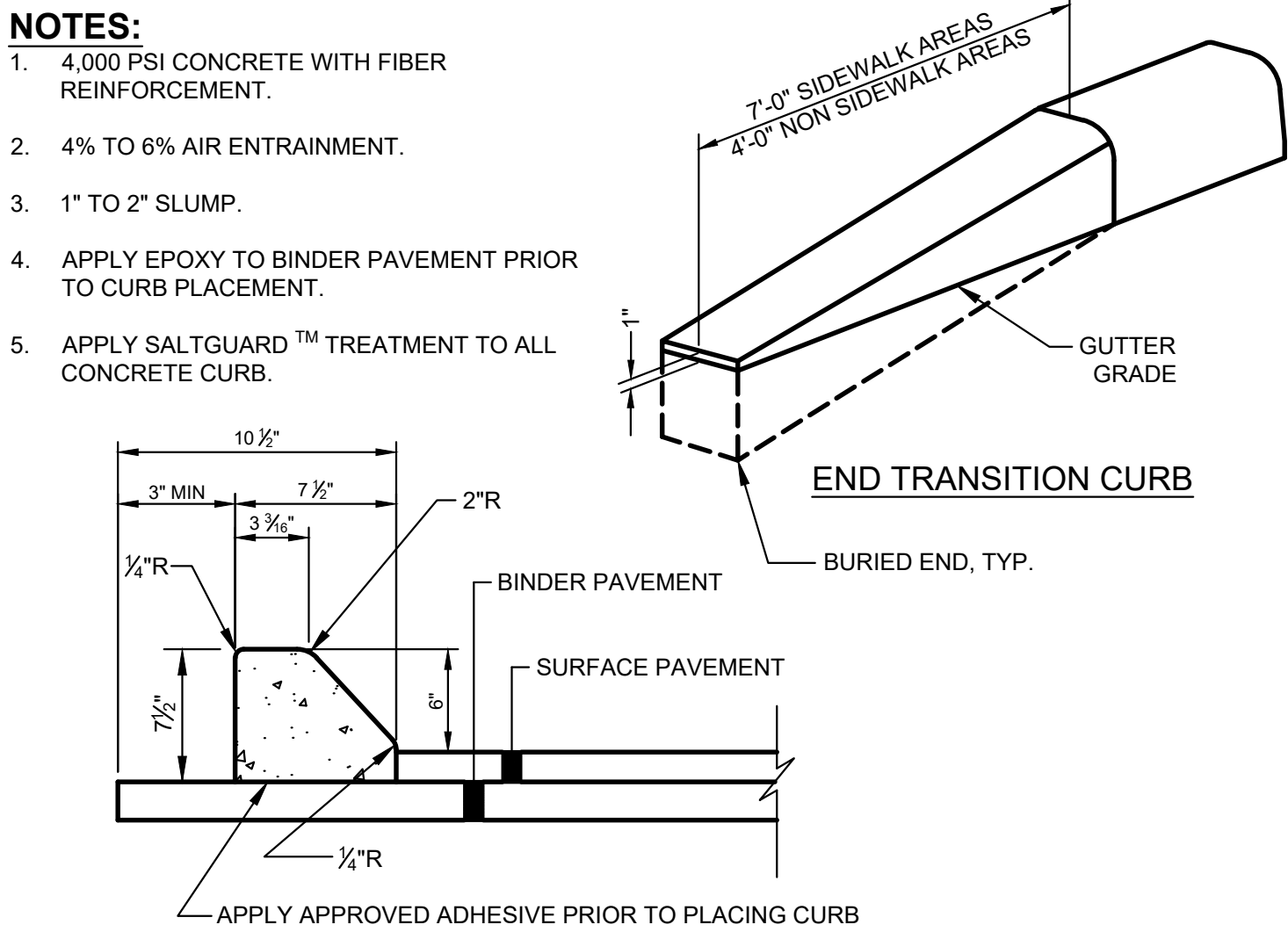
(B)
N.T.S.



- 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.

DIRECT TO BINDER SLIPFORM CONCRETE CURB

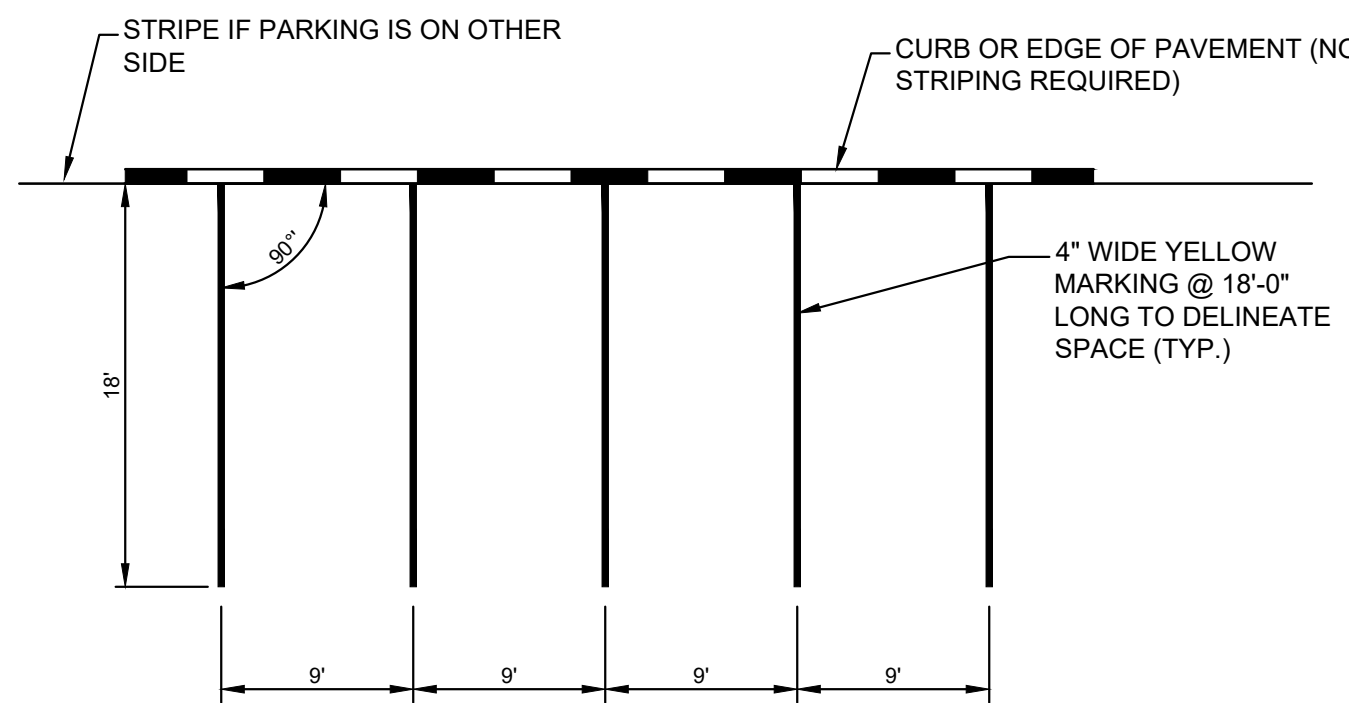
(C)
N.T.S.



- 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.

EXTRUDED SLIPFORM SLOPED CONCRETE CURB DETAIL

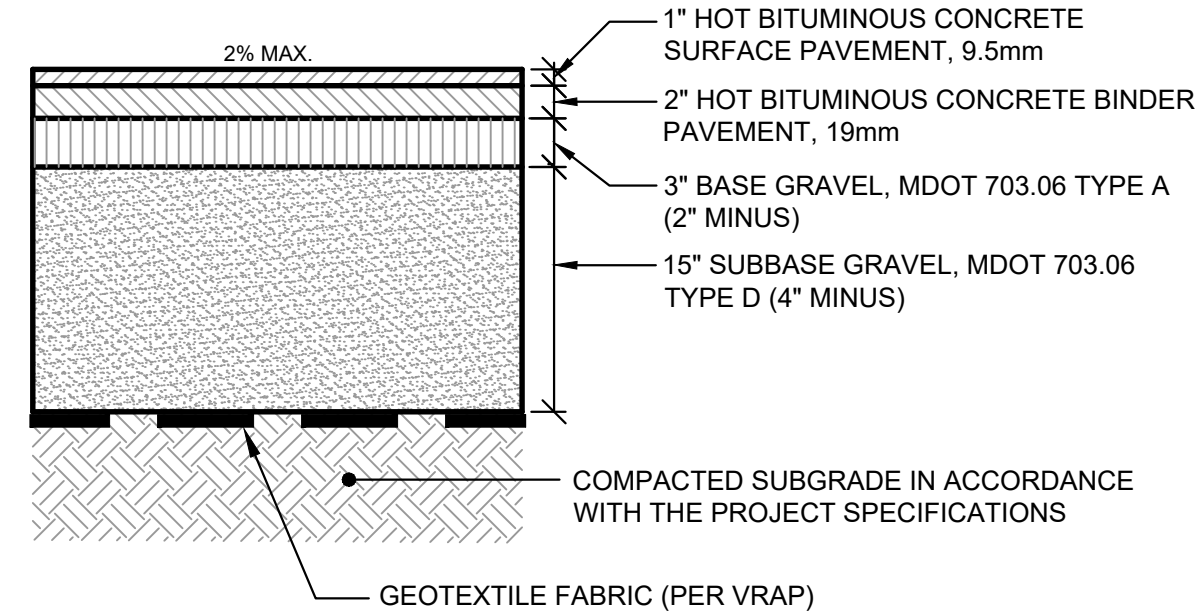
(D)
N.T.S.



NOTE:
WHEN PARKING IS ON A CURVE THE NARROWEST PORTION OF THE PARKING STALL SHALL MEET THE WIDTH SHOWN.

STANDARD PARKING STALL STRIPING

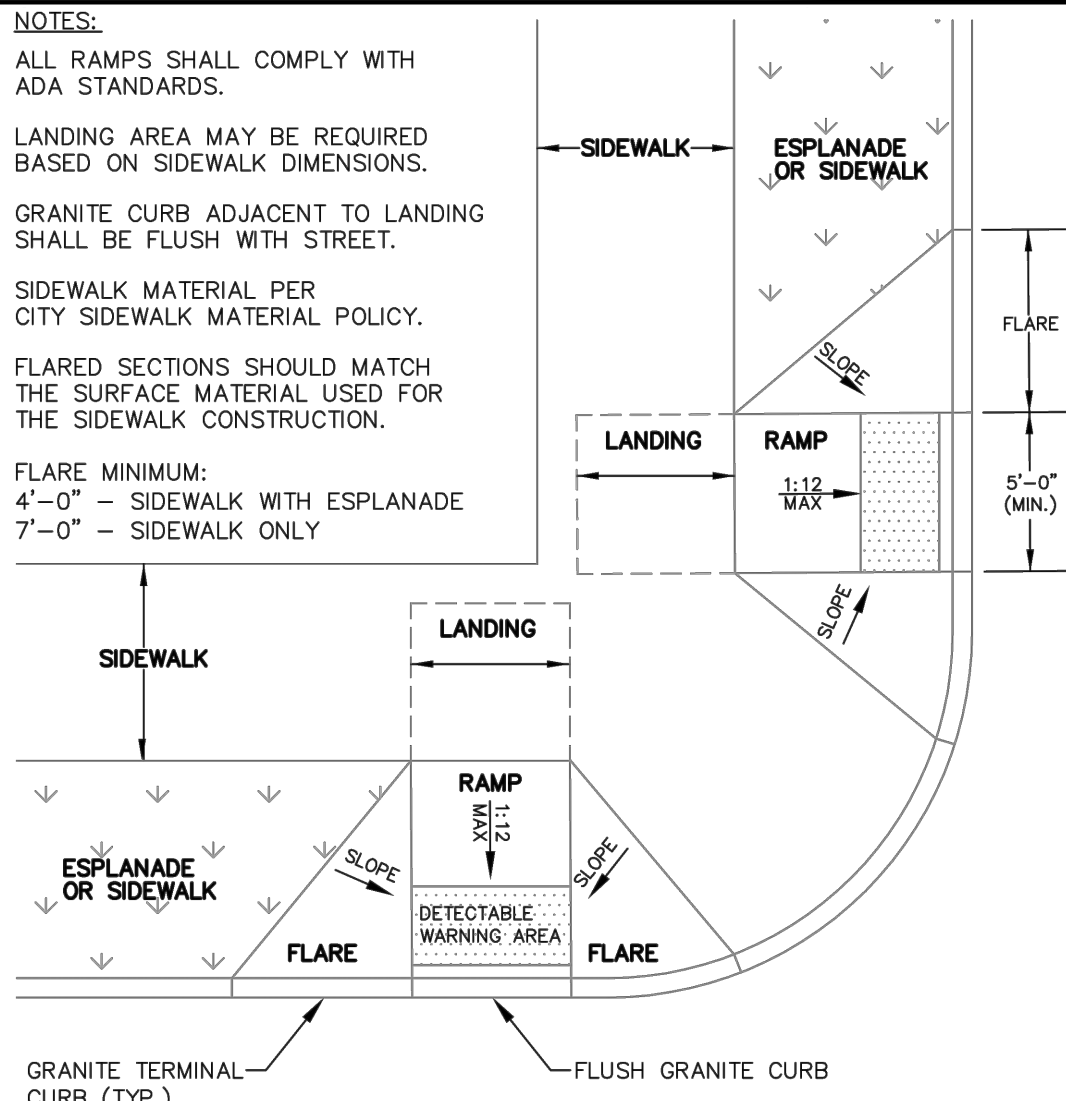
(E)
N.T.S.



- 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.

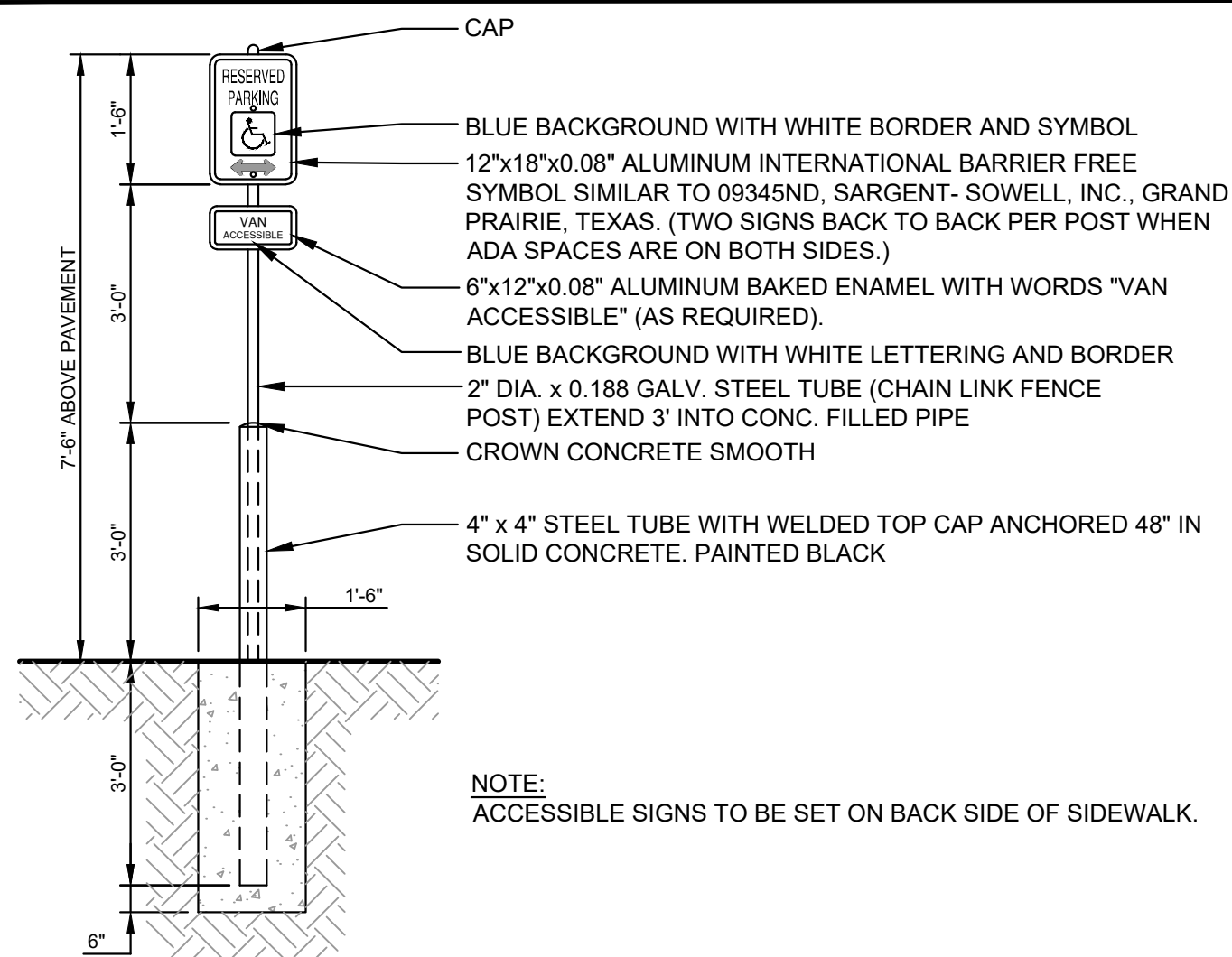
**STANDARD DUTY
BITUMINOUS CONCRETE PAVEMENT SECTION**

(F)
N.T.S.



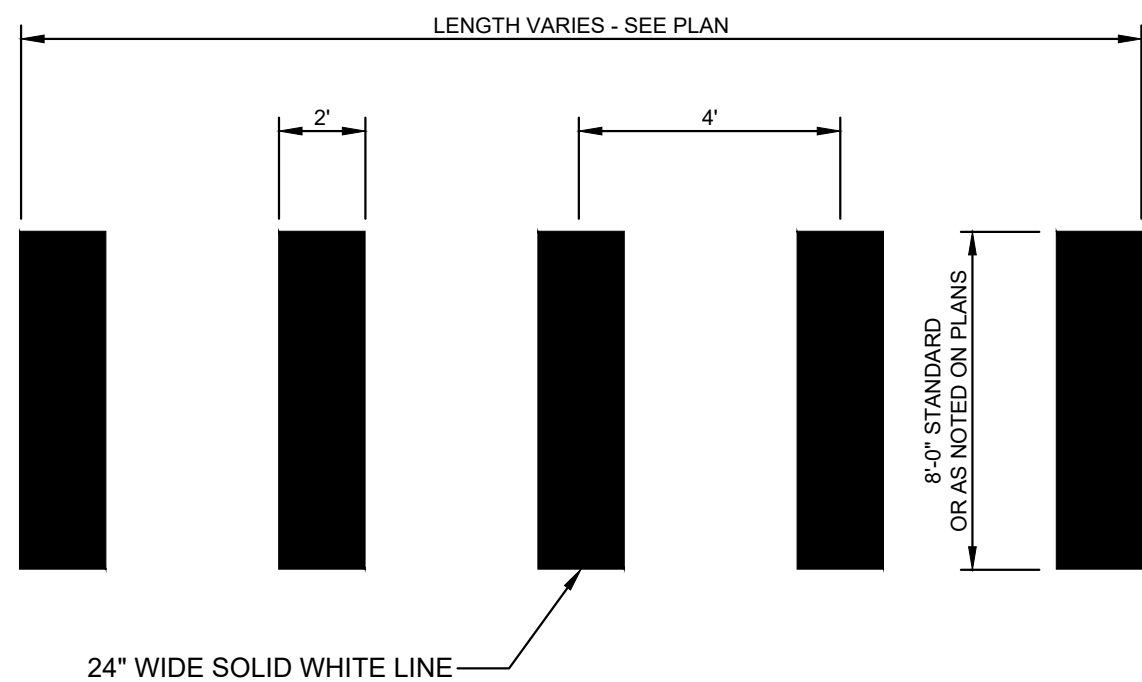
PREFERRED SIDEWALK RAMP AT INTERSECTION

(G)
N.T.S.
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



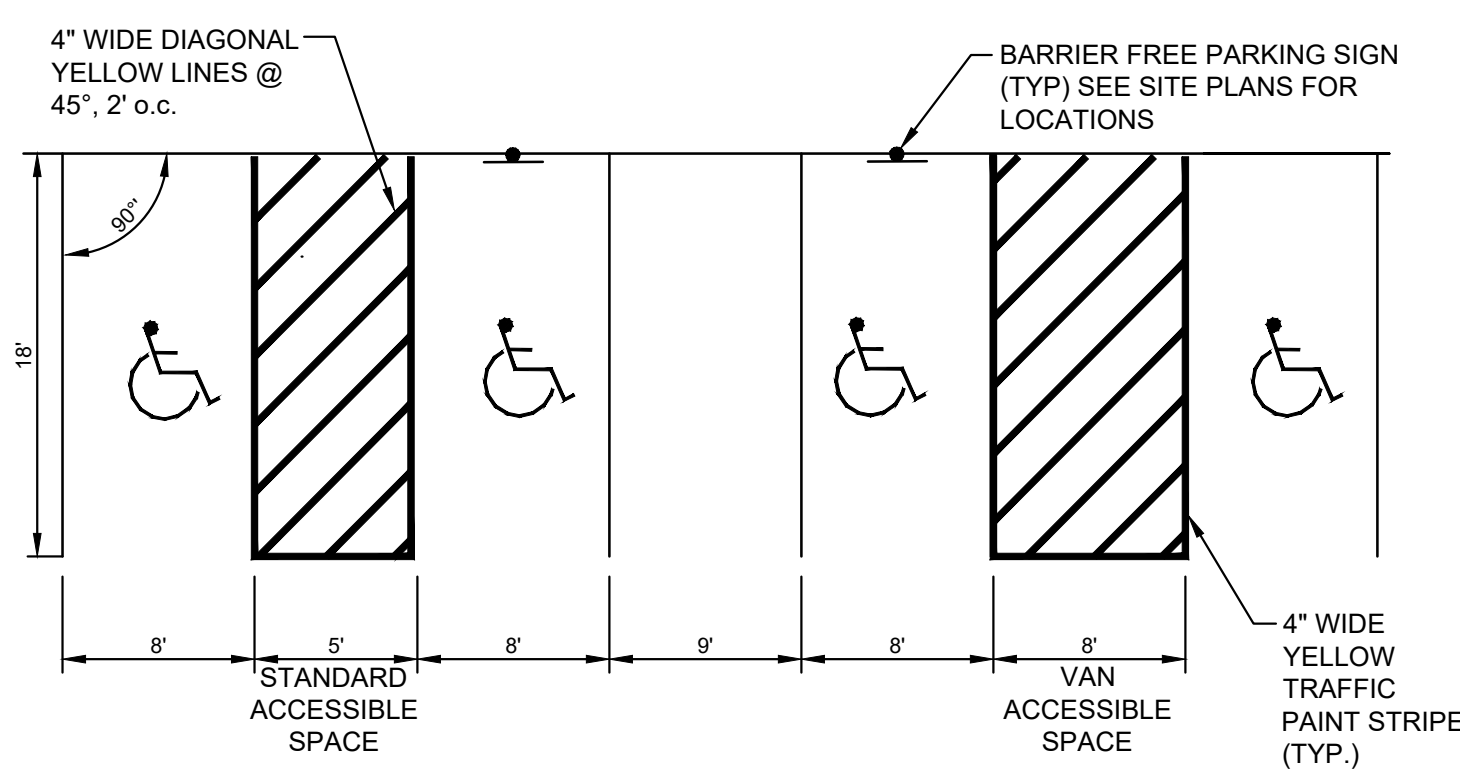
BARRIER FREE PARKING SIGN

(H)
N.T.S.



CROSSWALK STRIPING DETAIL

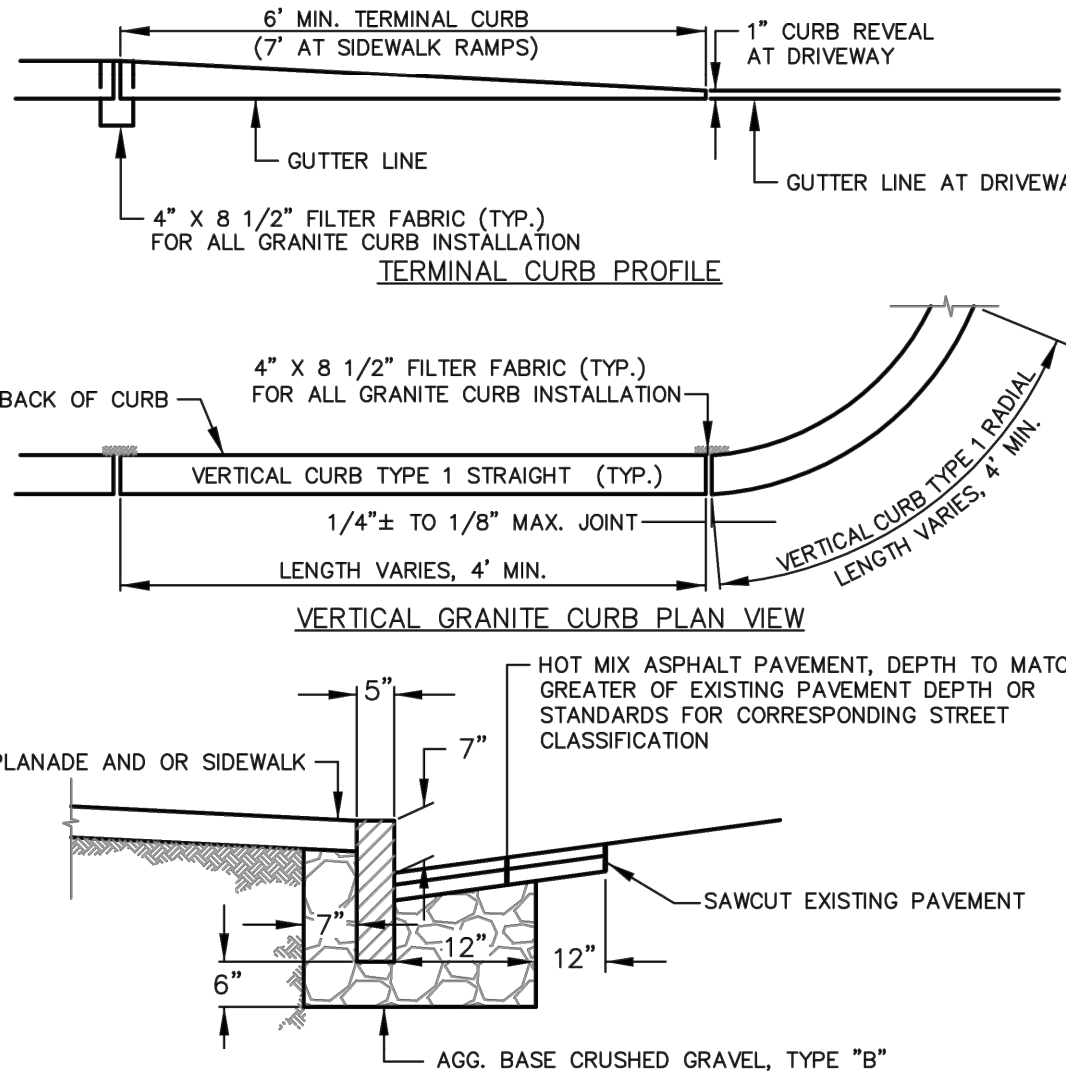
(I)
N.T.S.



- 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.

TYPICAL BARRIER FREE PARKING STALL DIMENSIONS

(J)
N.T.S.

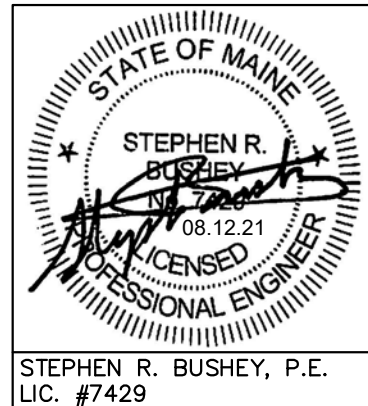


VERTICAL GRANITE CURB INSTALLATION IN EXIST. STREETS

(K)
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.



Rev.	Date	Revision

Rev.	Date	Revision
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		

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



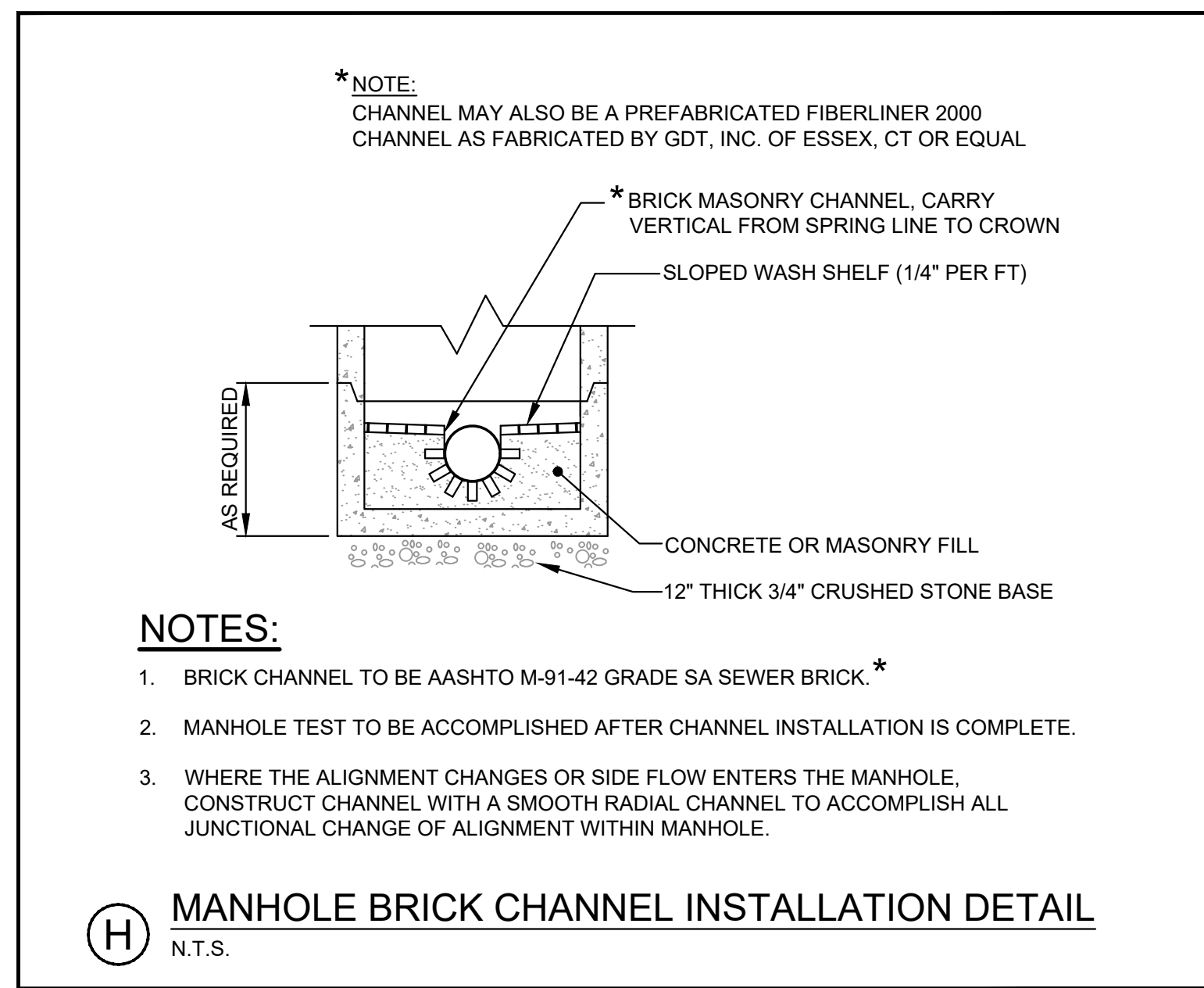
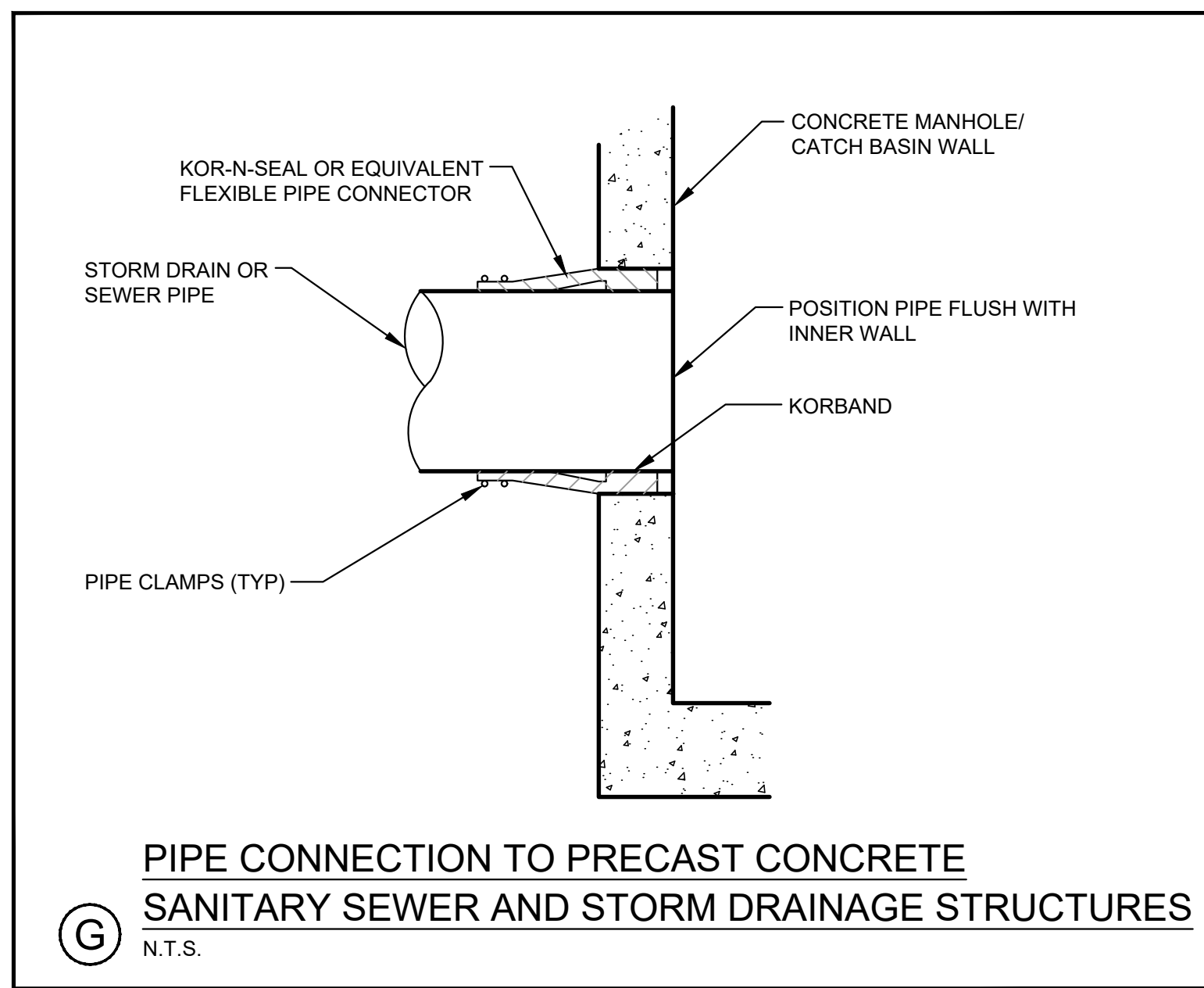
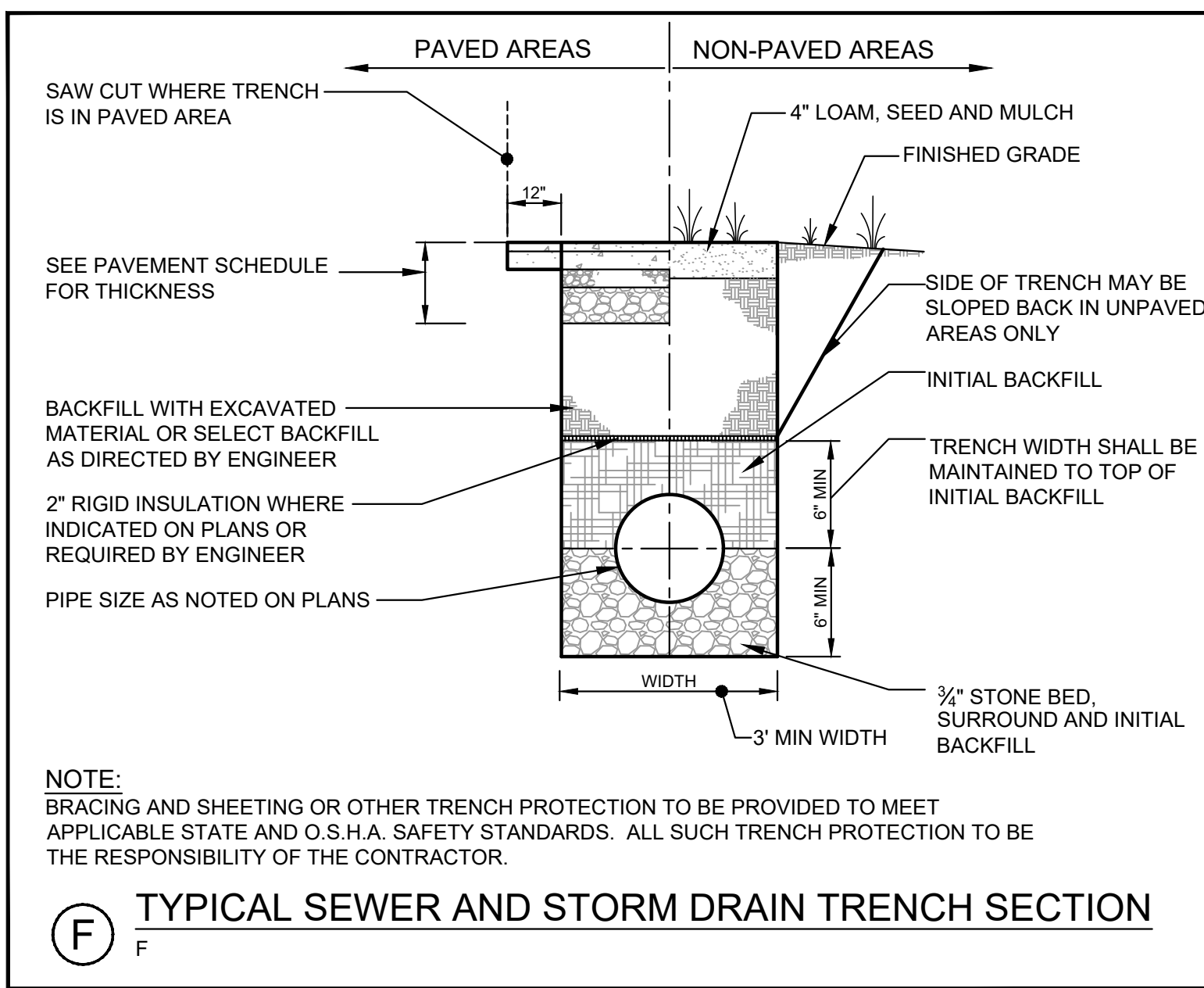
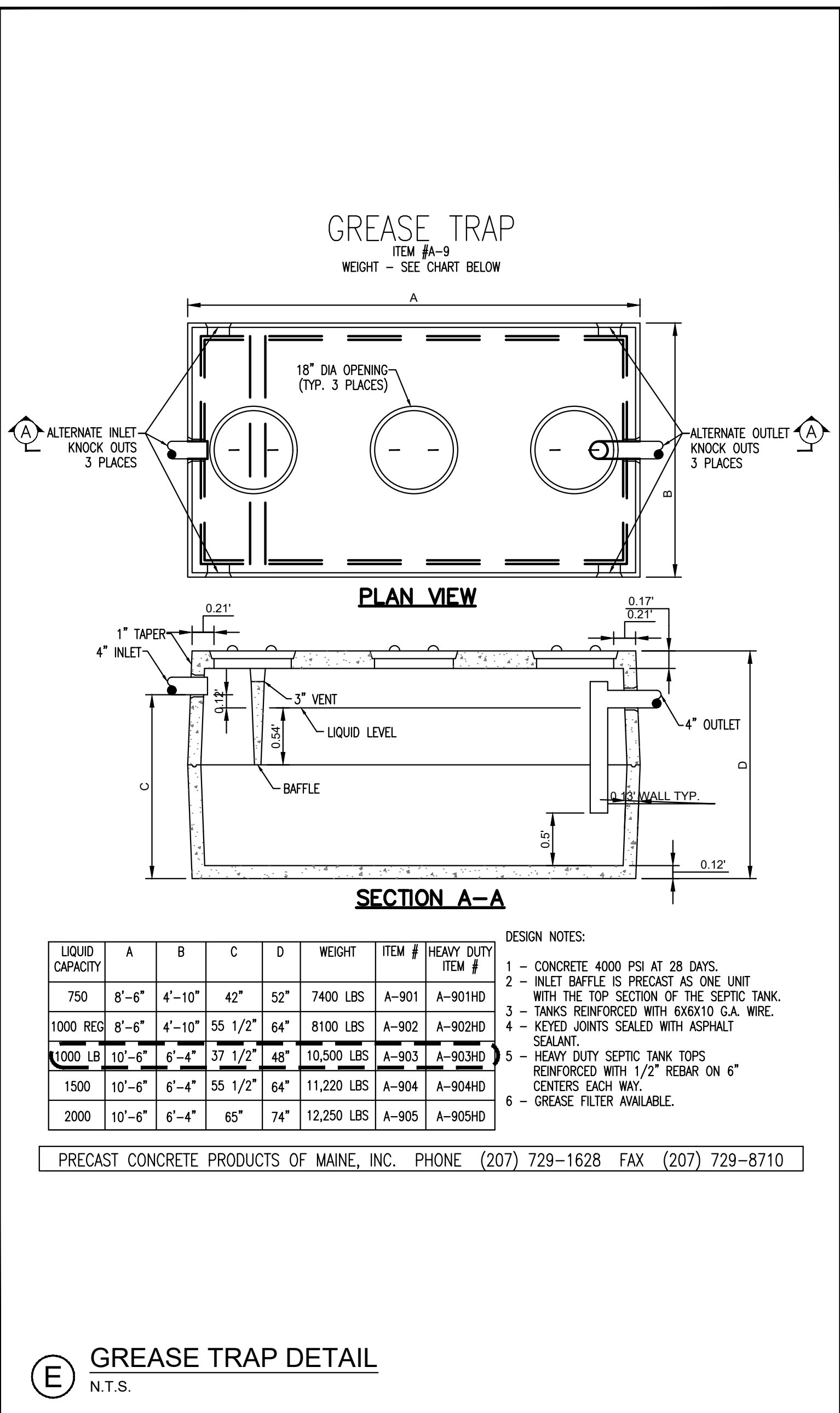
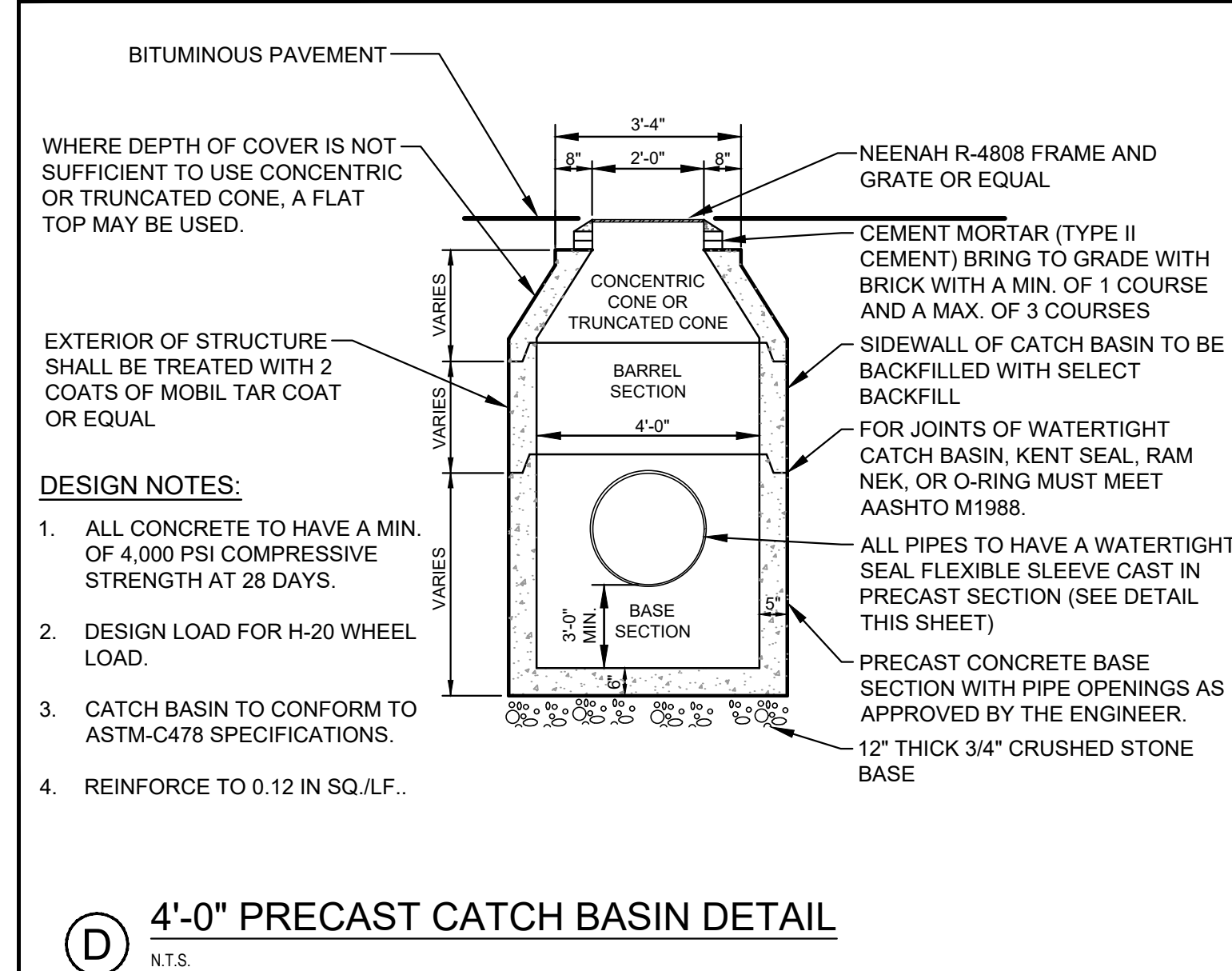
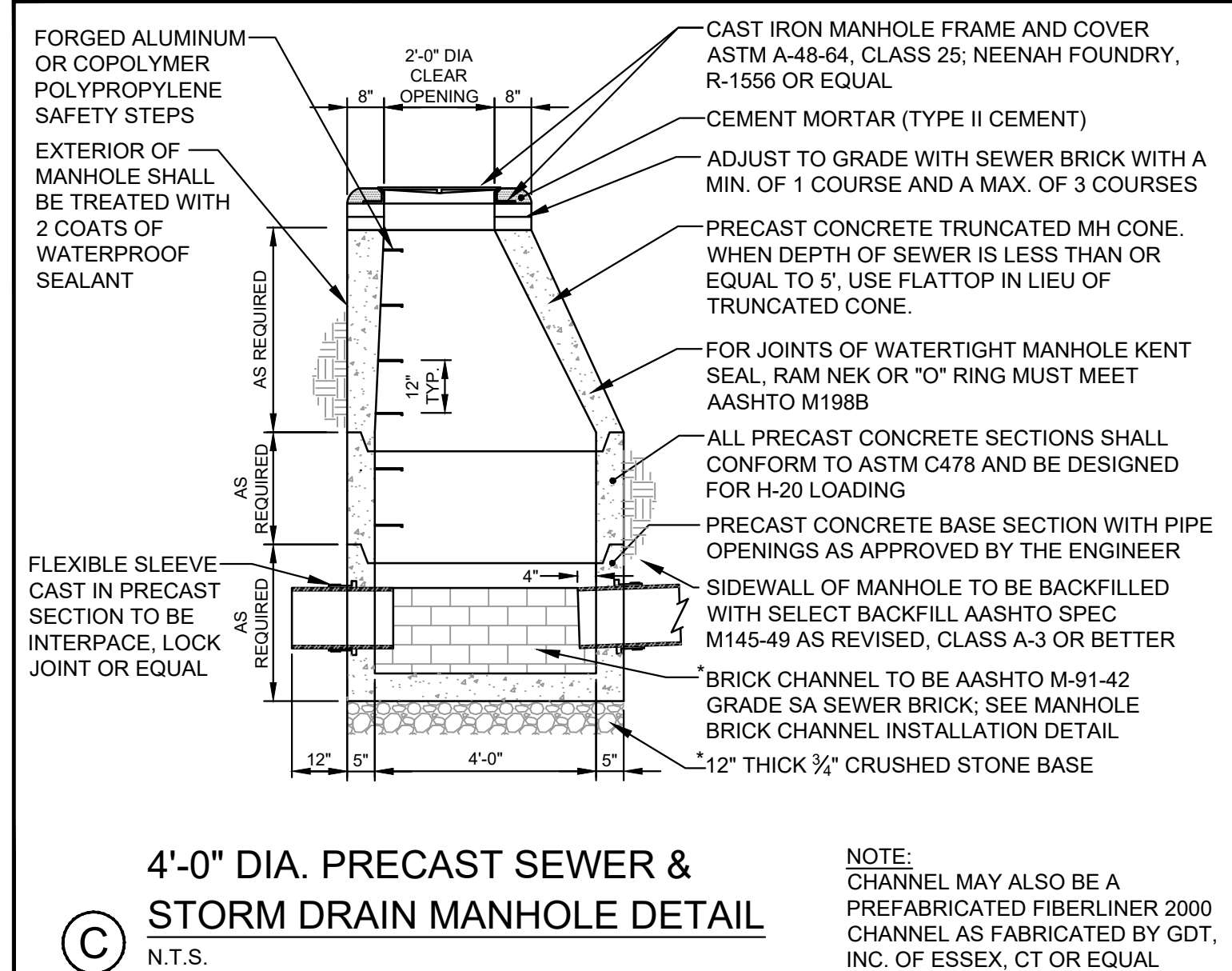
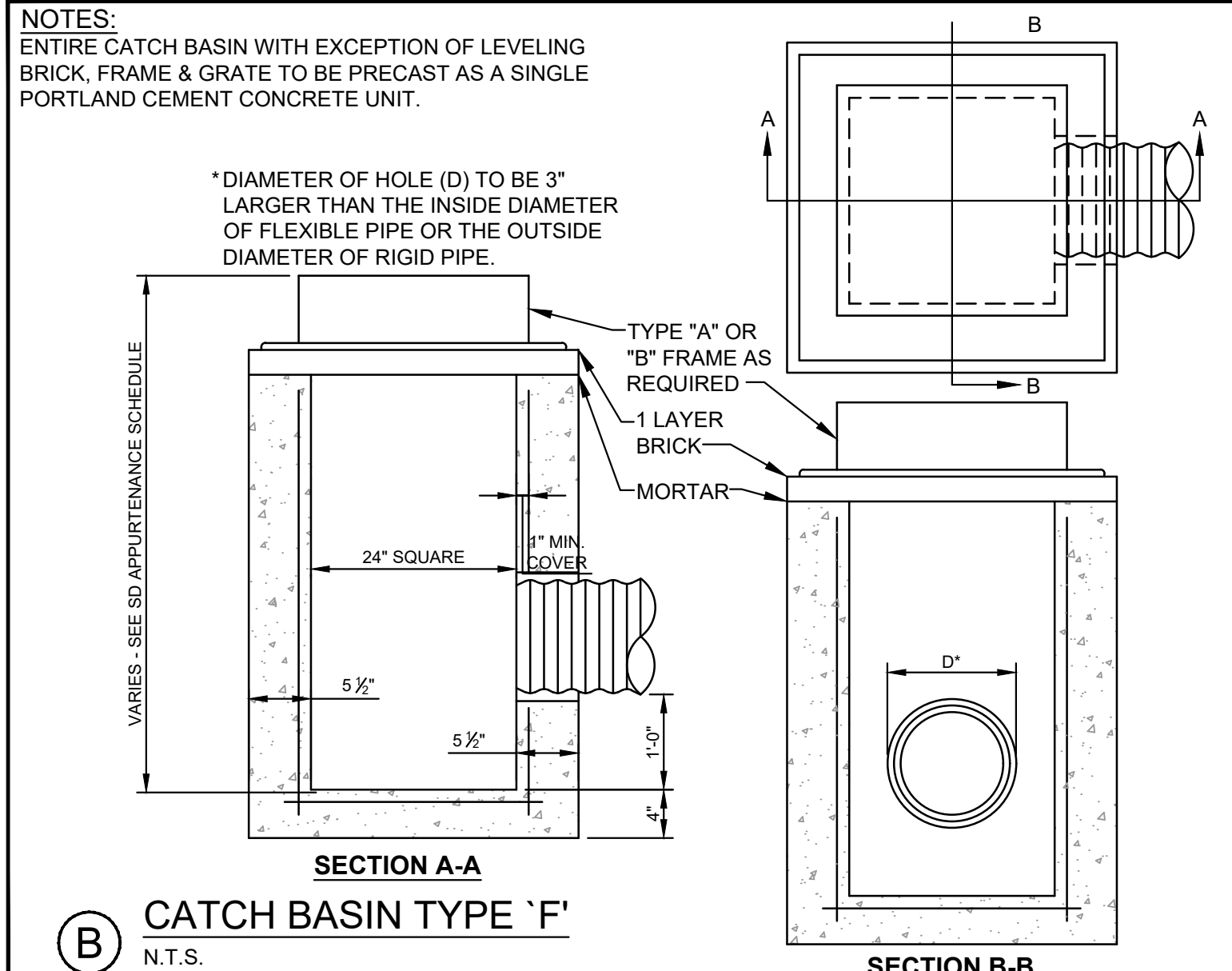
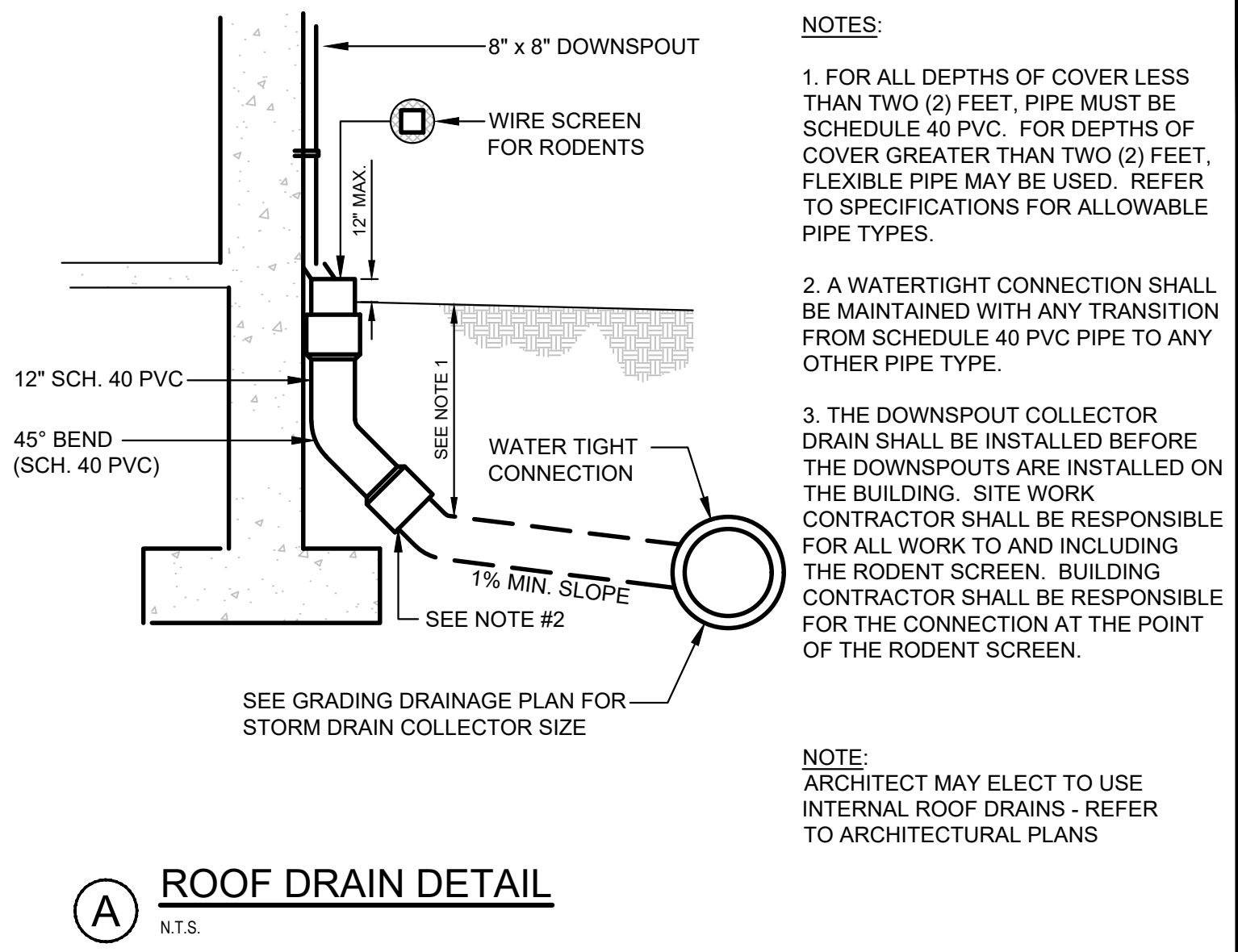
Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

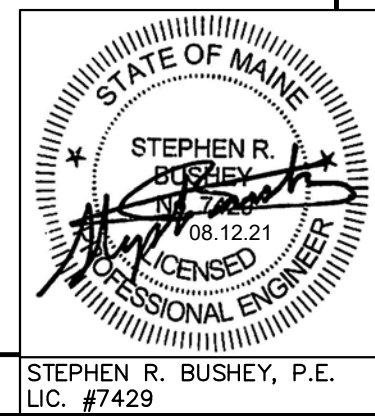
Drawing No.

C-8.0

U:\3824.01-Portland Homeless Center-Developer Collaborative-Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 8/12/2021 9:01 AM



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



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

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

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



Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

Drawing Name: STORM DRAIN & UTILITY DETAILS

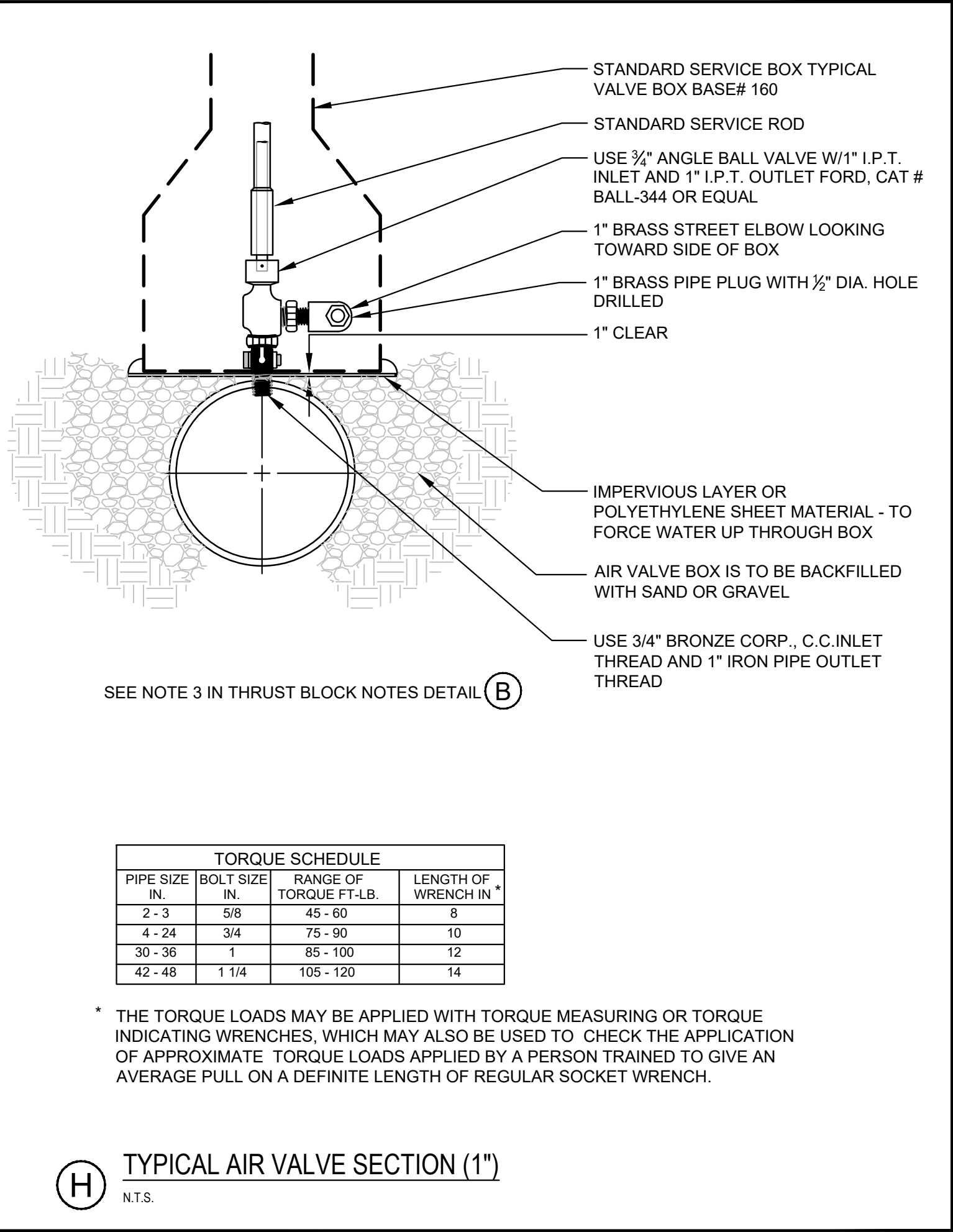
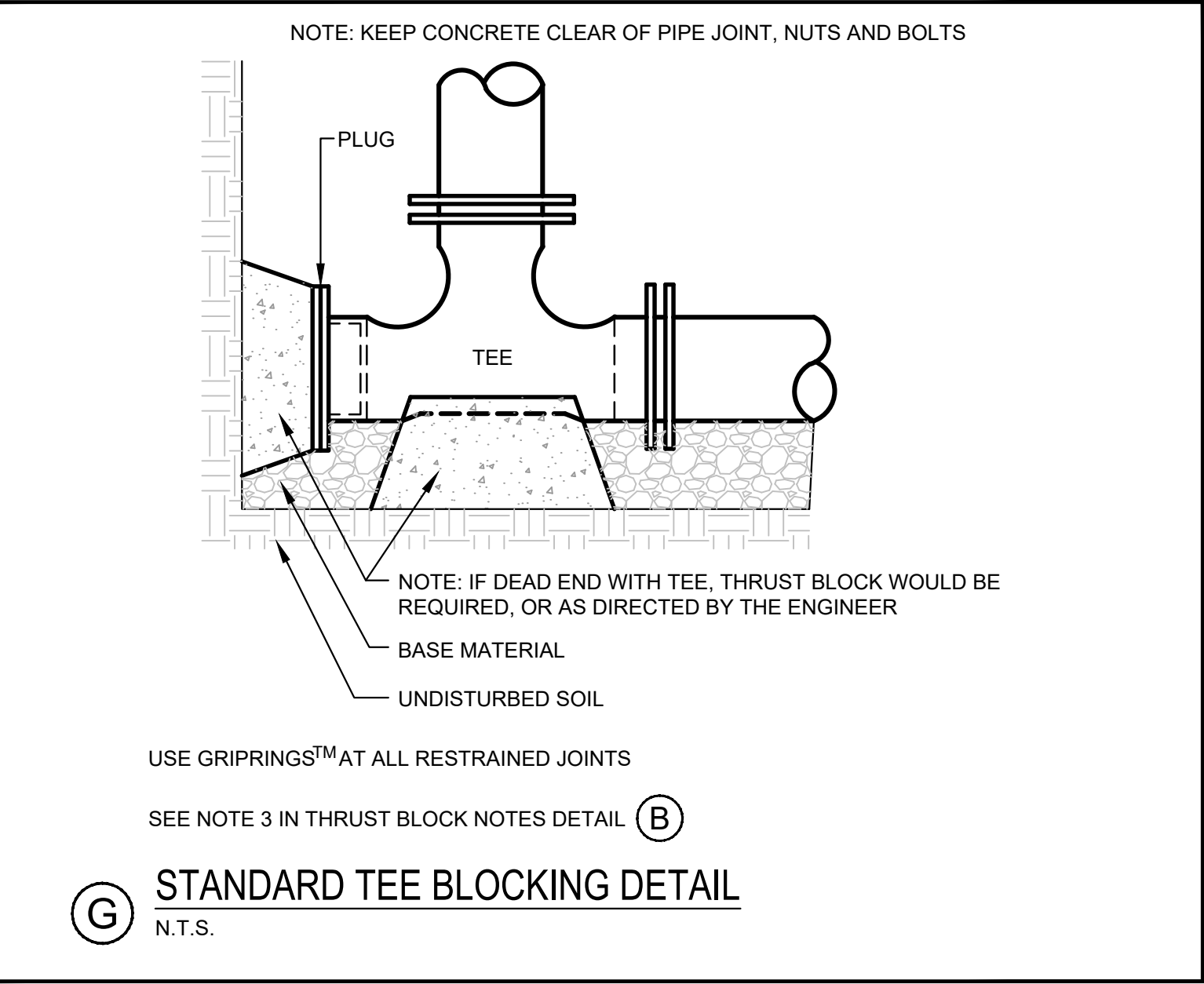
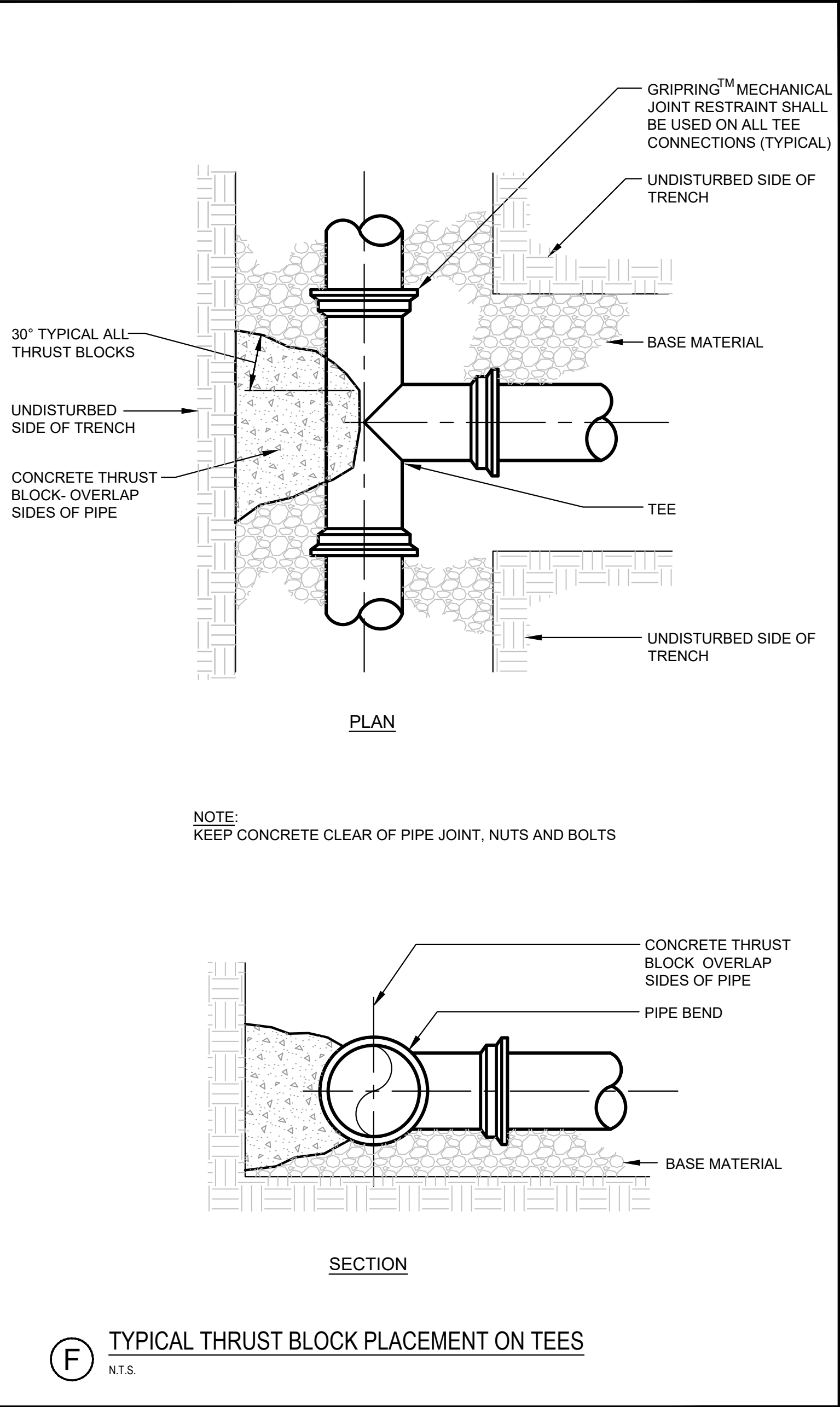
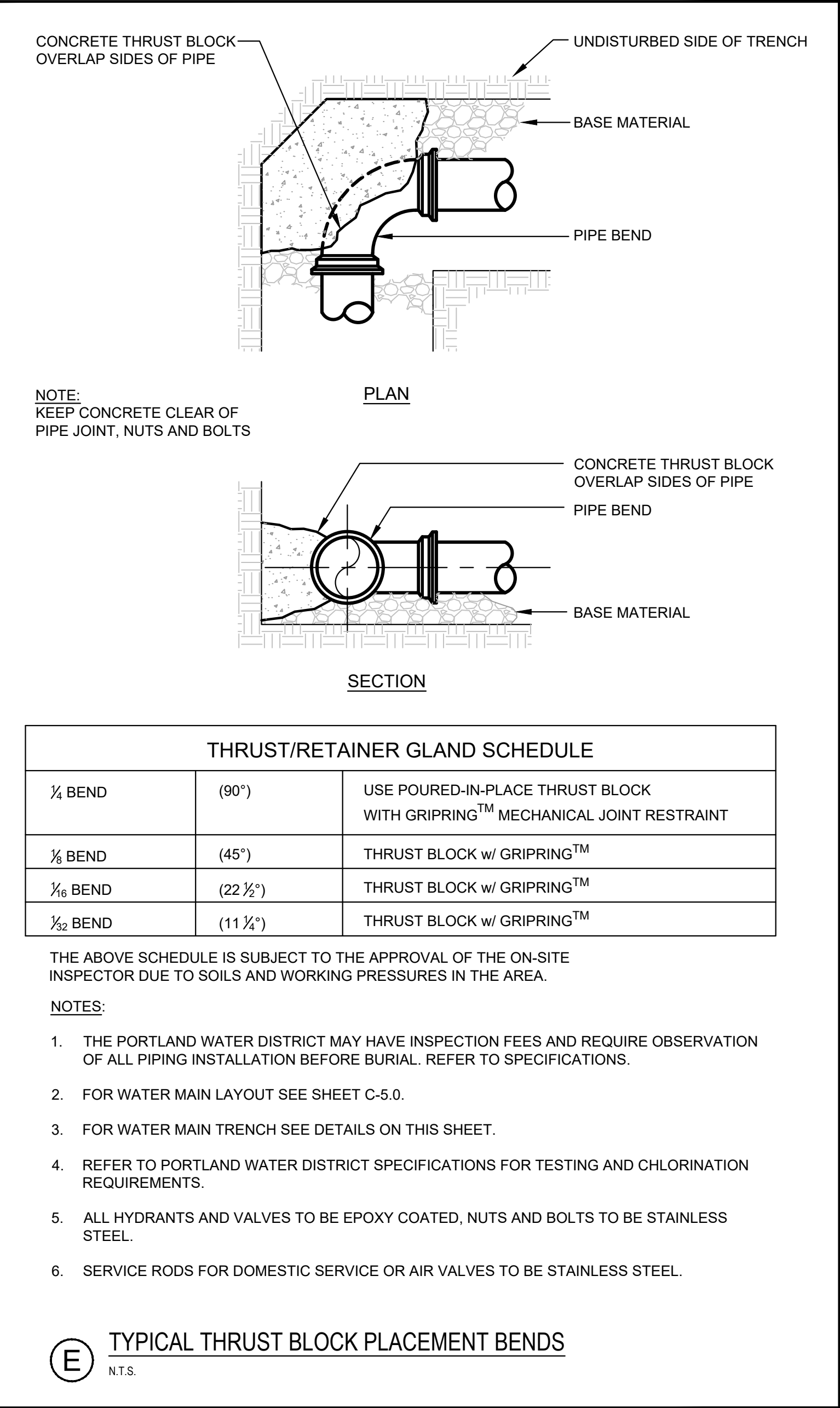
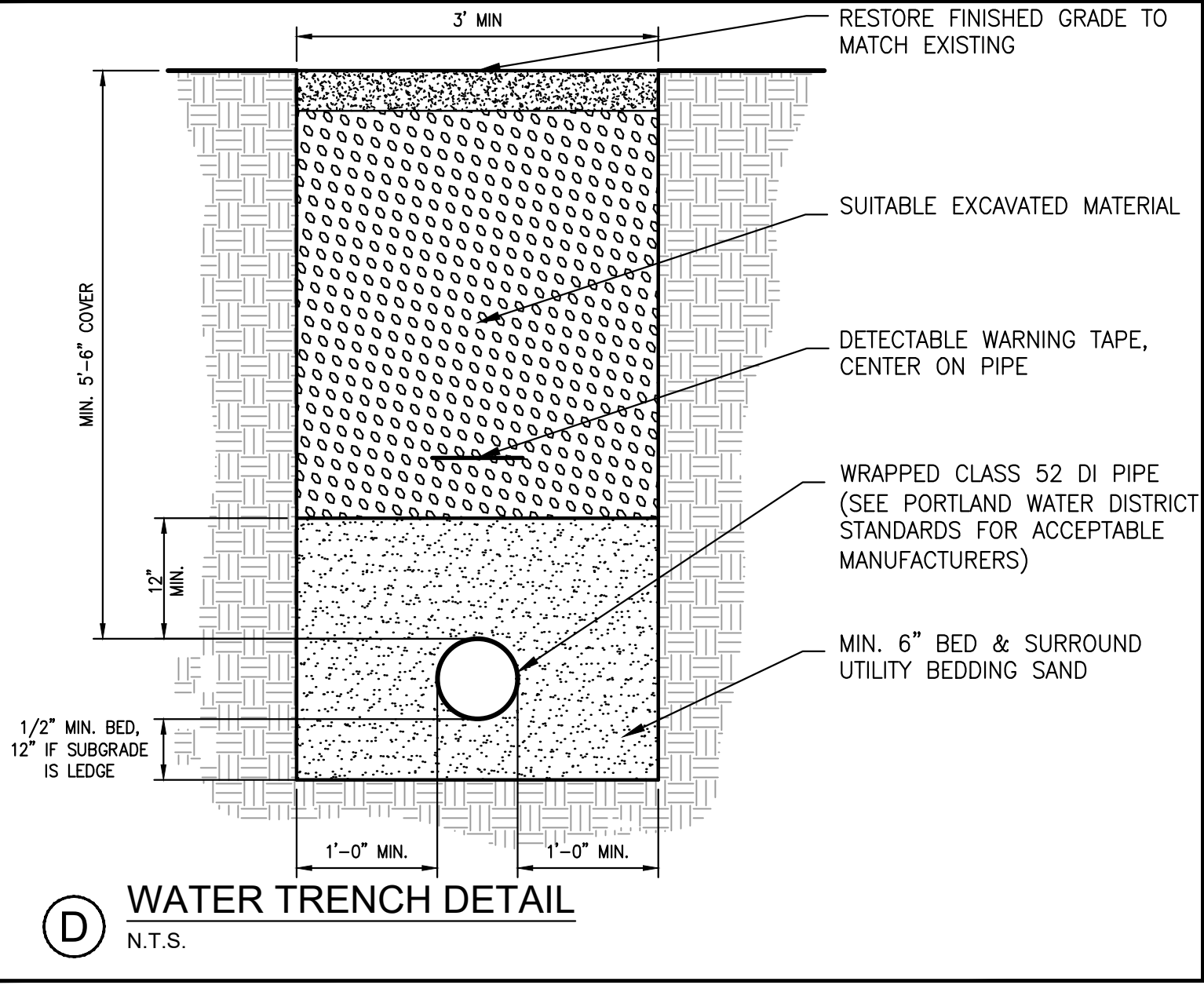
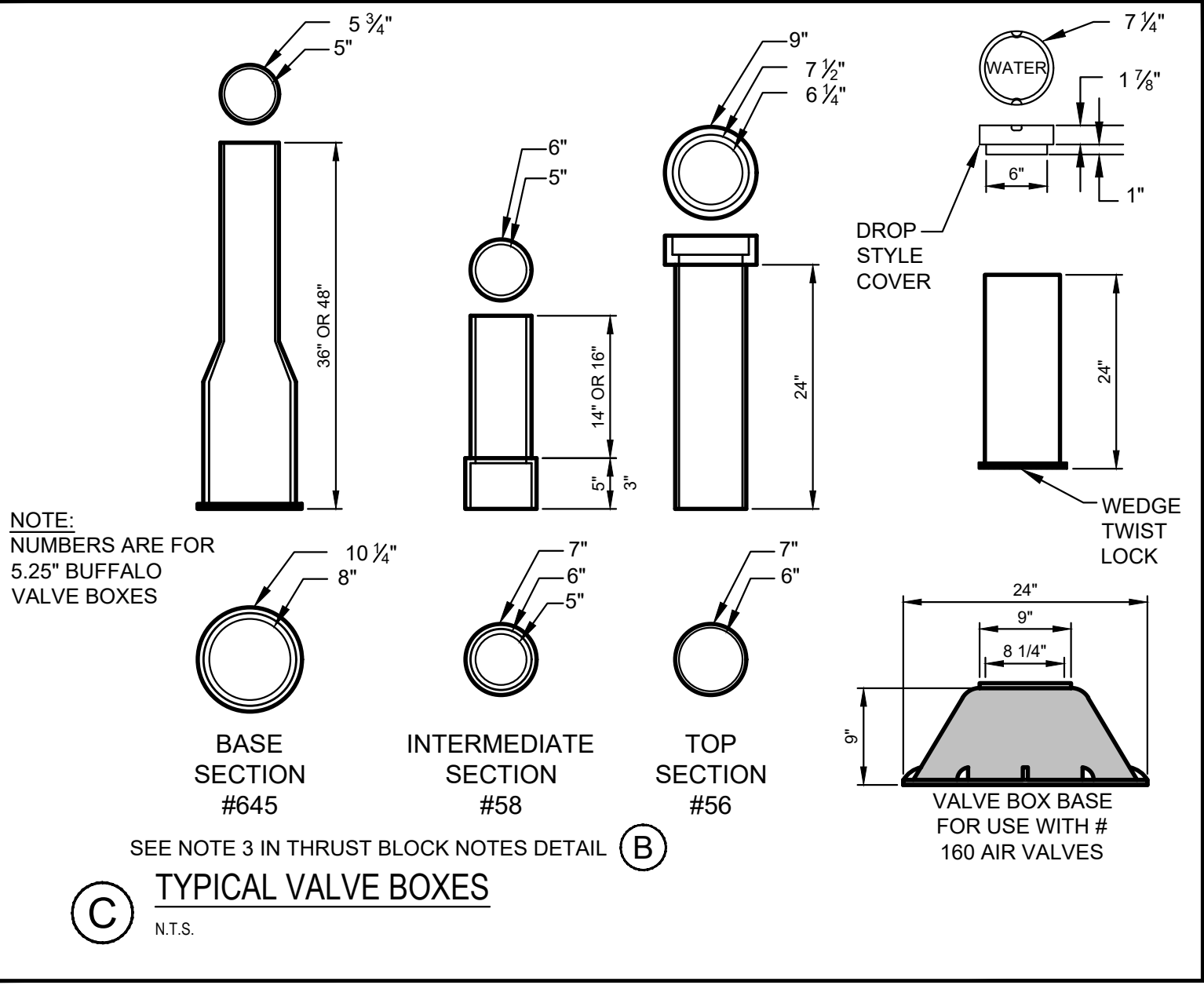
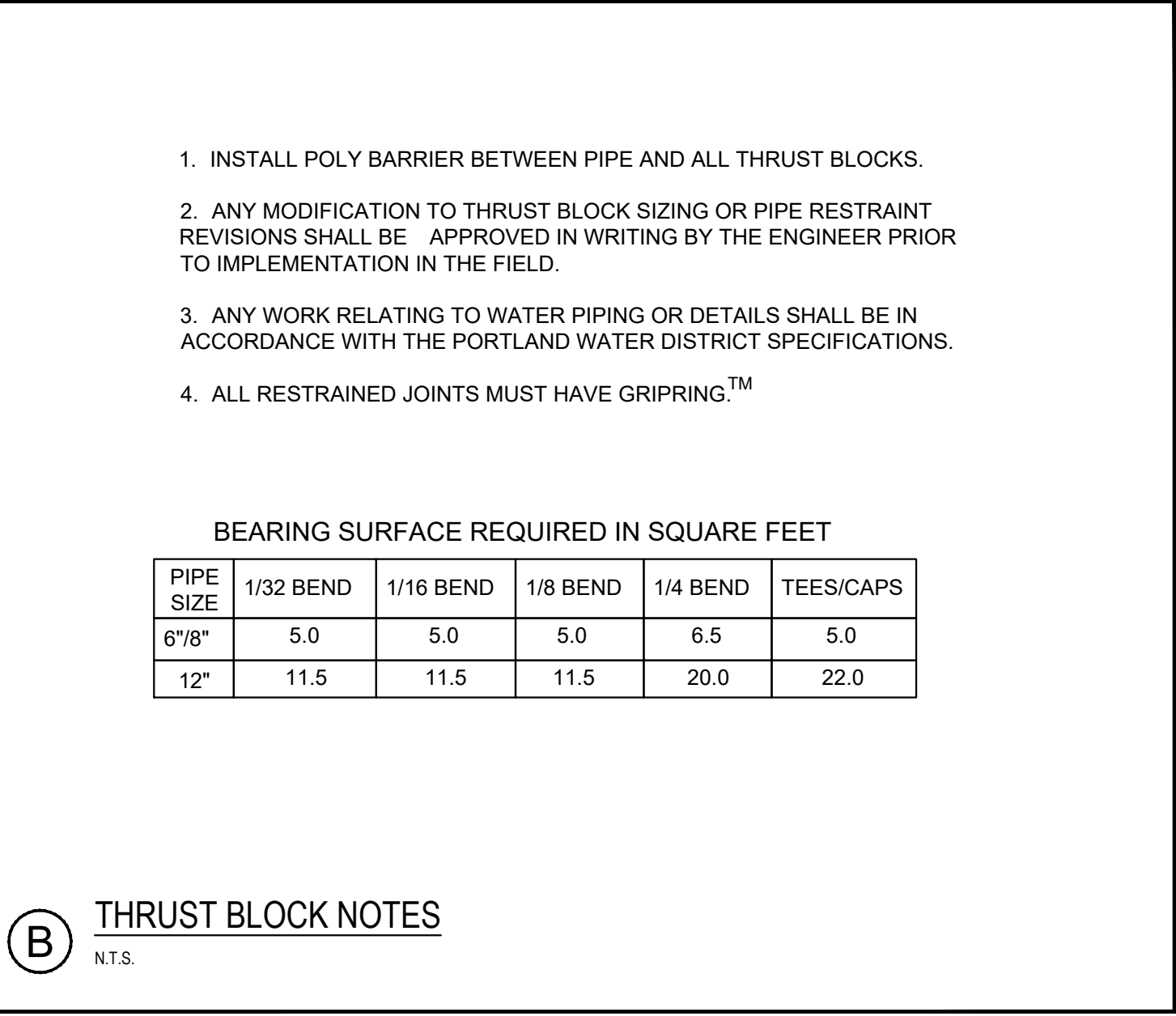
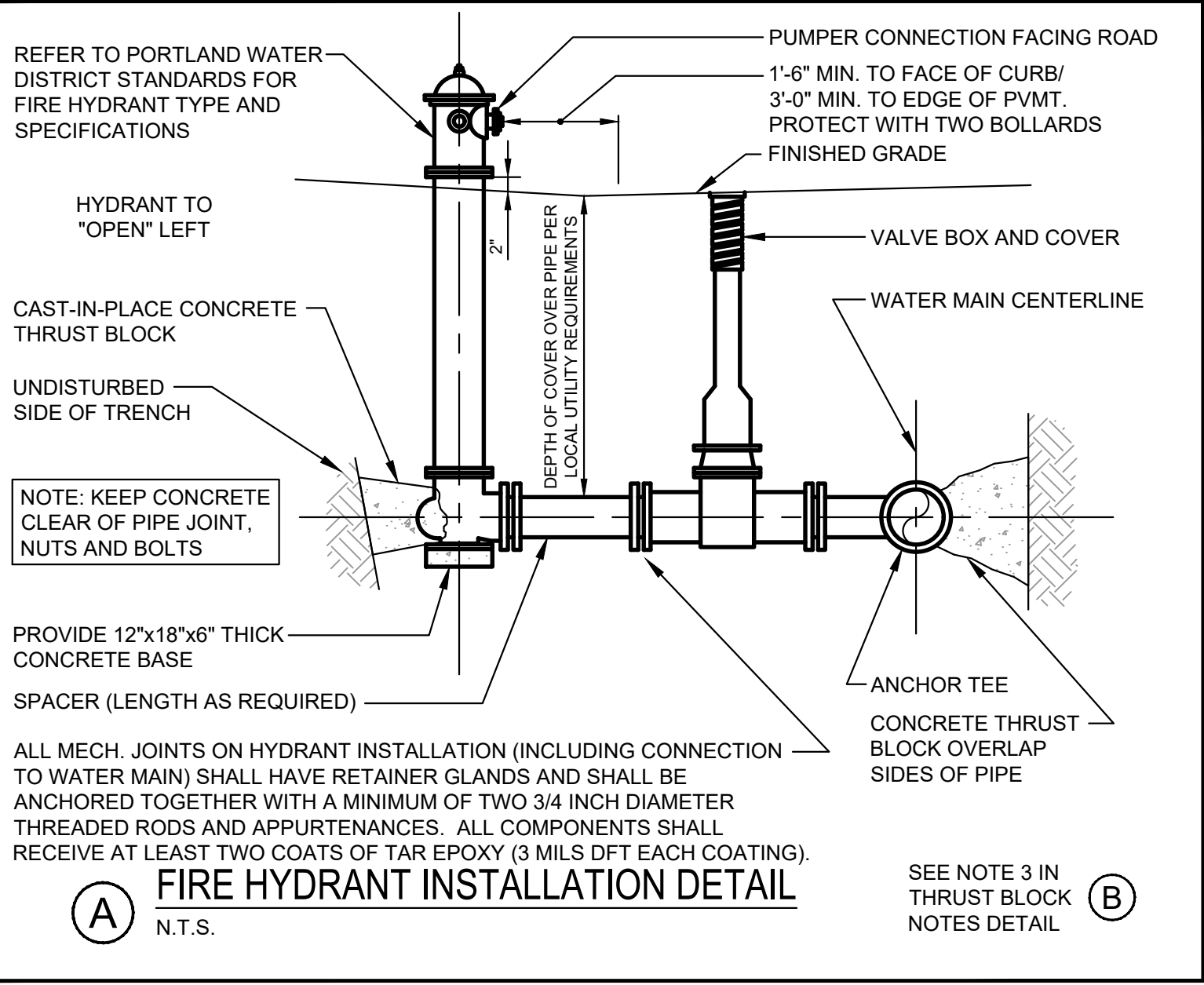
Project: Homeless Services Center
654 Riverside Street, Portland, Maine

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

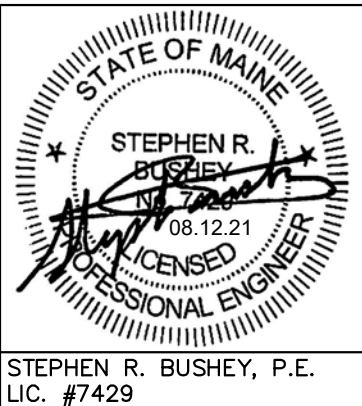
Drawing No.

C-8.2

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 8/12/2021 9:02 AM



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



Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401-DETAILS.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		

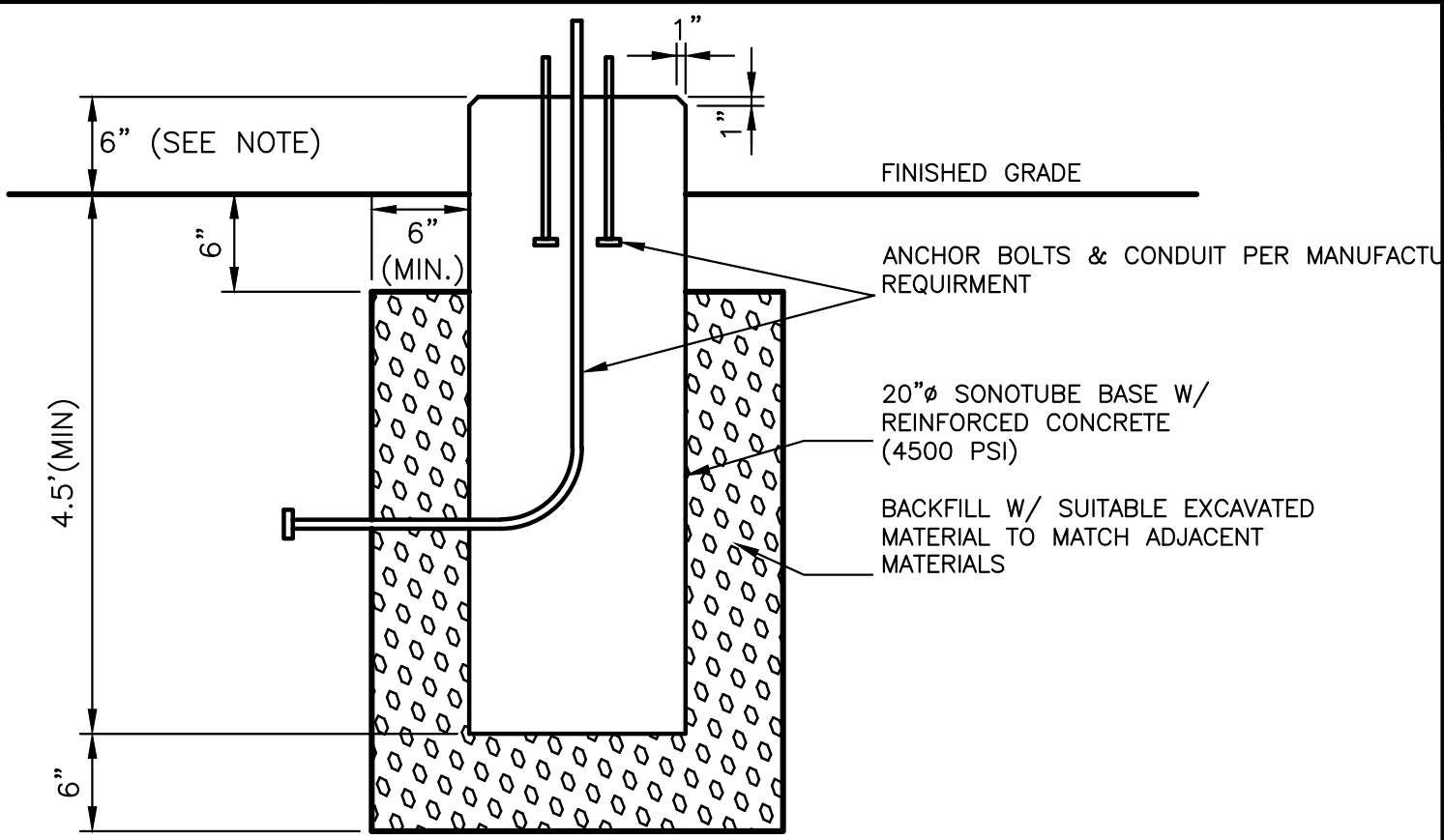


Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

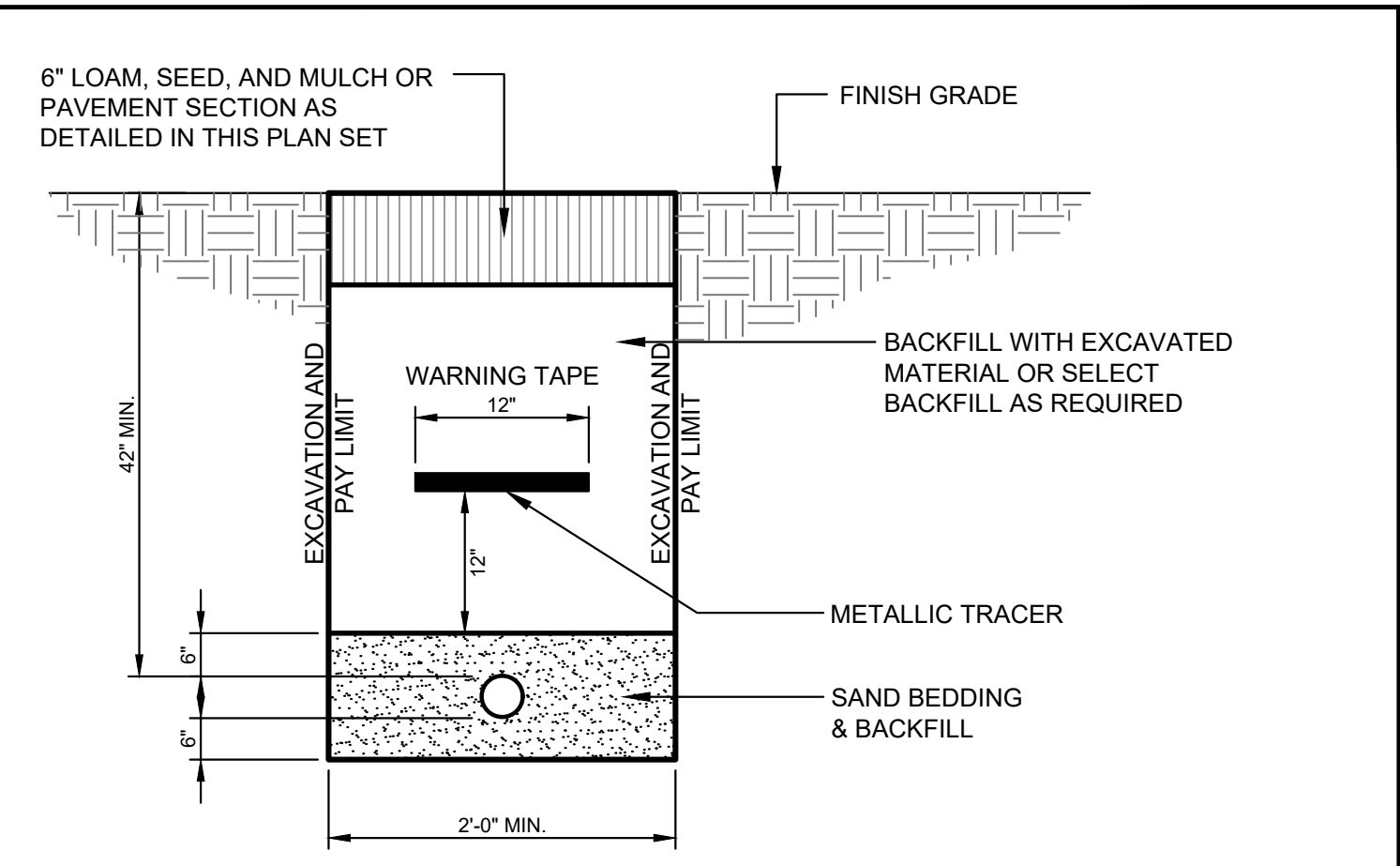
Drawing No.
C-8.3

U:\3824.01 Portland Homeless Center Developer Collaborative Portland, ME\3 - CAD\DWG\382401-DETAILS.dwg - 8/12/2021 9:02 AM



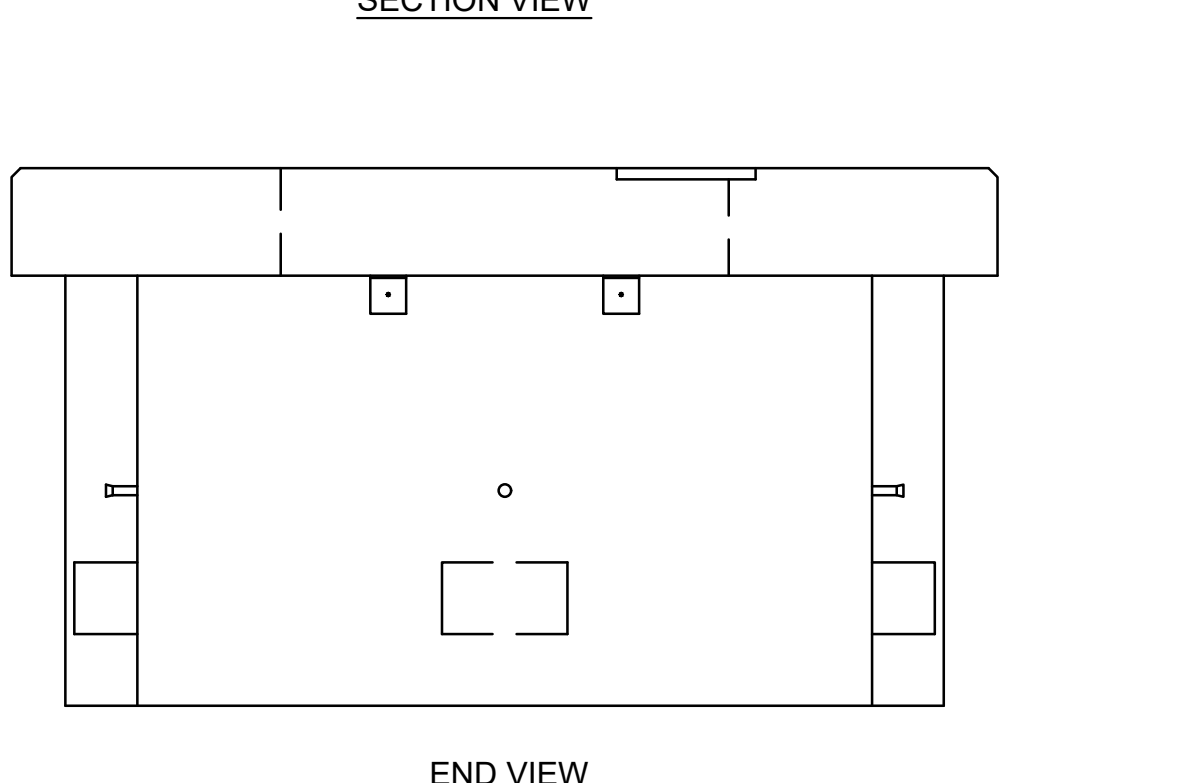
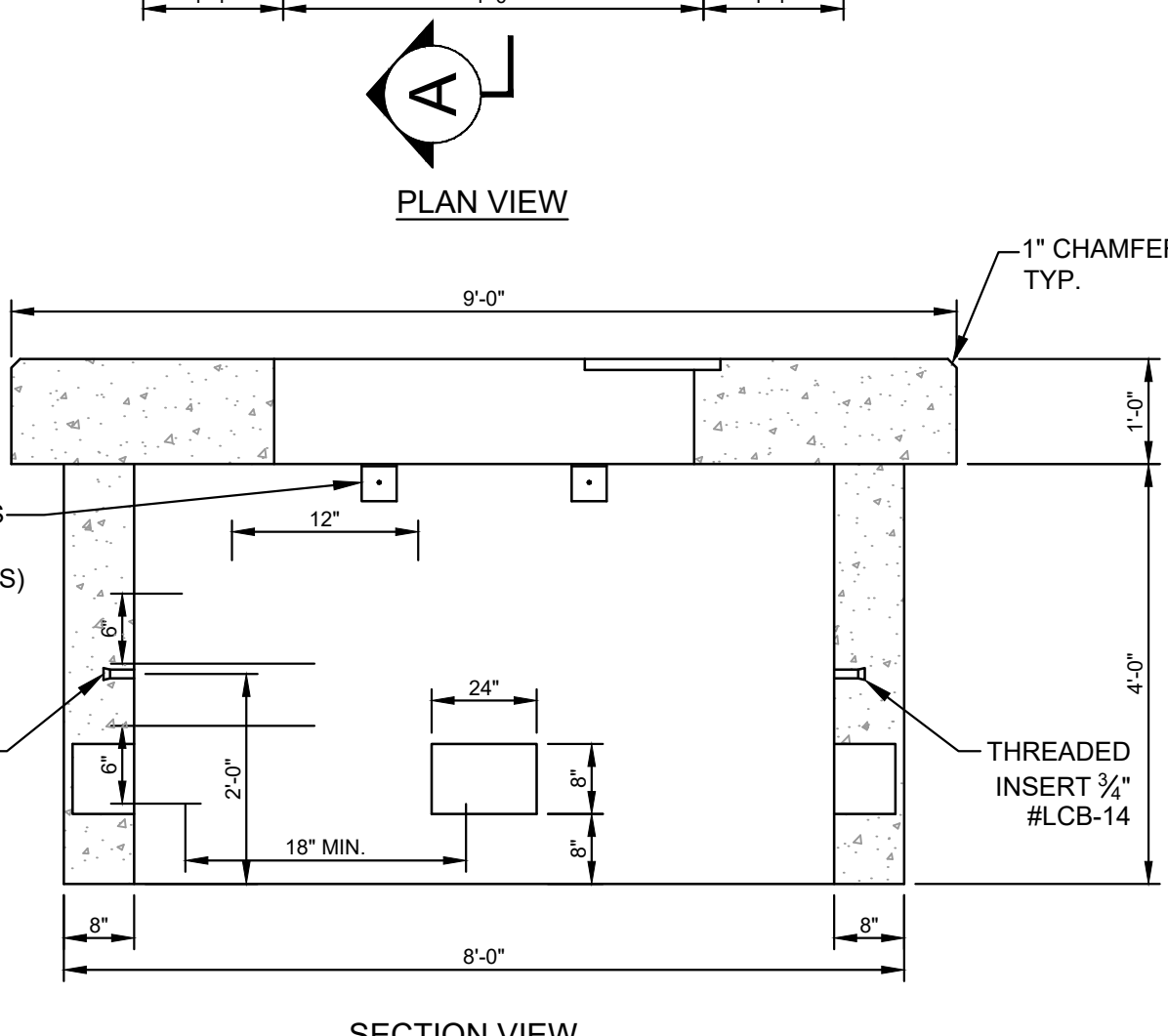
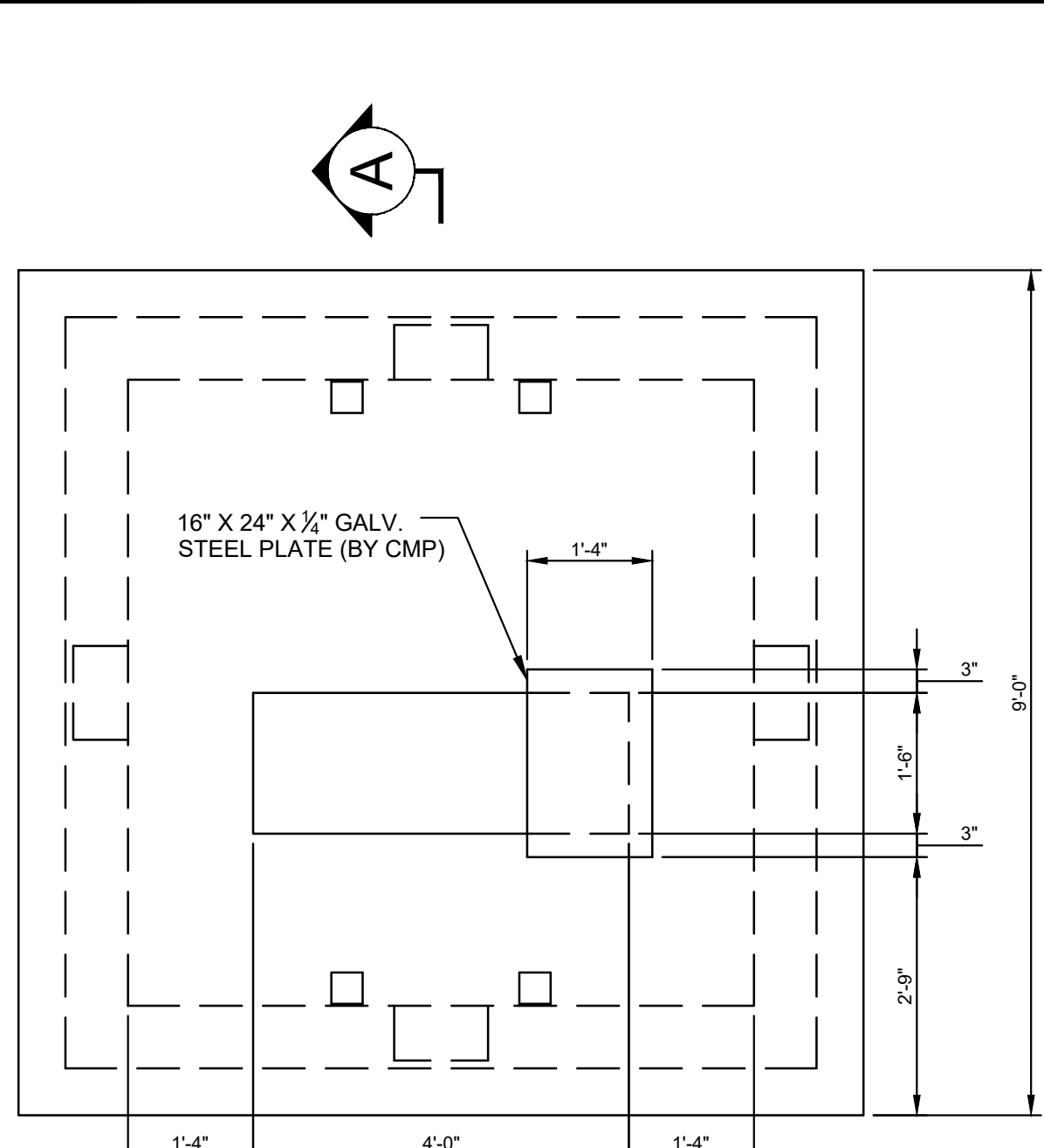
- NOTES:
1. ALL LIGHT POLE BASES TO BE SET 6" ABOVE GRADE (MINIMUM) AND LIGHT BOLLARD BASES SHALL BE SET 3" ABOVE GRADE, OR AS DESCRIBED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL CONFIRM PRIOR TO ANY POLE INSTALLATIONS.
 2. BASE SIZE TO BE CONFIRMED WITH THE LIGHT POLE SUPPLIER.

(A) TYPICAL PARKING LOT LIGHTING POLE FOUNDATION
N.T.S.



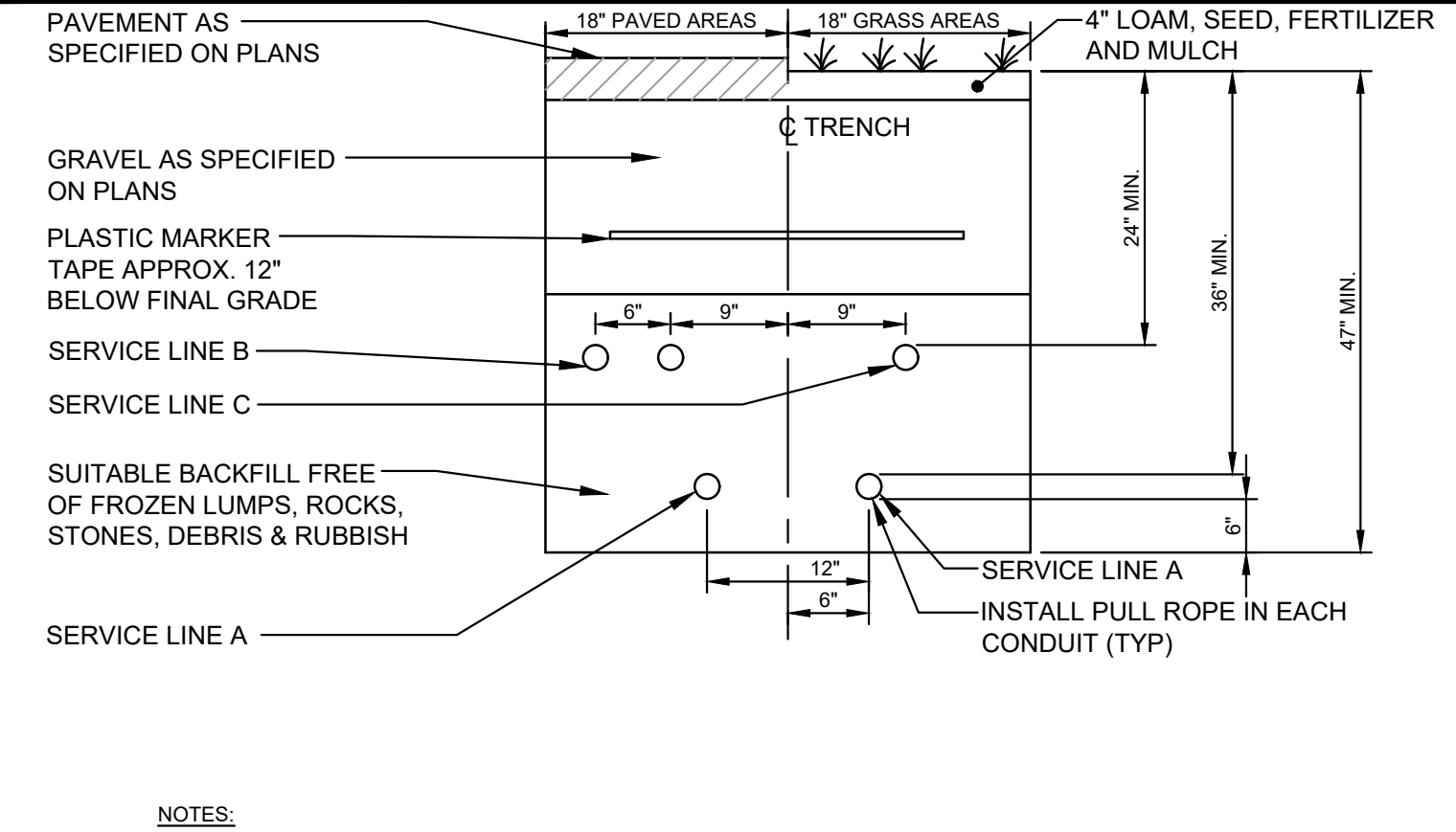
NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

(E) GAS SERVICE TRENCH SECTION
N.T.S.



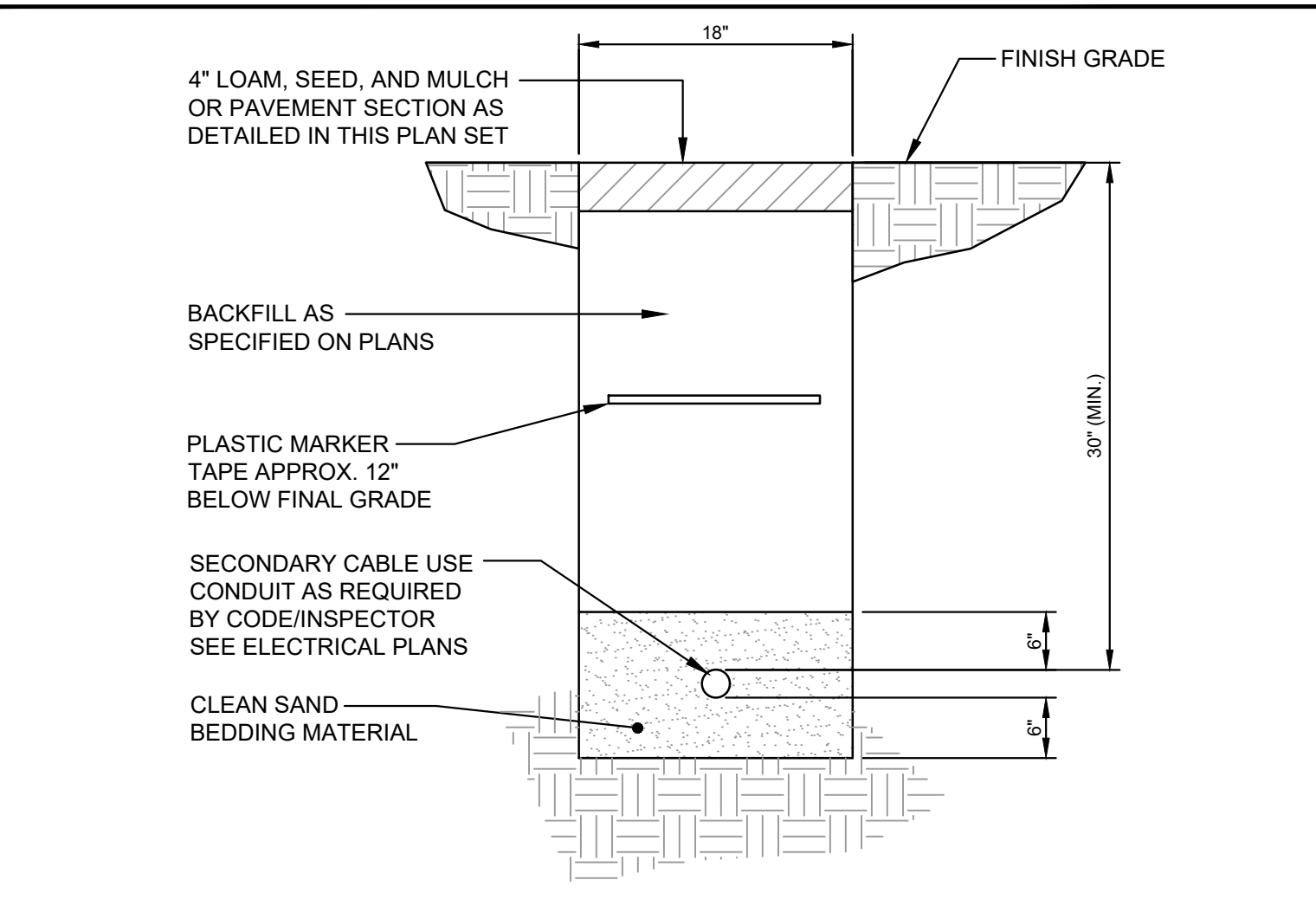
- NOTES:
1. CONCRETE MINIMUM COMPRESSIVE STRENGTH 4,000 PSI @ 28 DAYS WITH STEEL REINFORCEMENT.
 2. AS PER CENTRAL MAINE POWER COMPANY SPECIFICATIONS, AS MANUFACTURED BY SUPERIOR CONCRETE OR EQUAL.
 3. FINAL SIZING TO BE BY ELECTRICAL DESIGNER.
 4. ONE 8" x 24" KNOCKOUT PROVIDED EACH WALL.
 5. FOR 750 - 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.

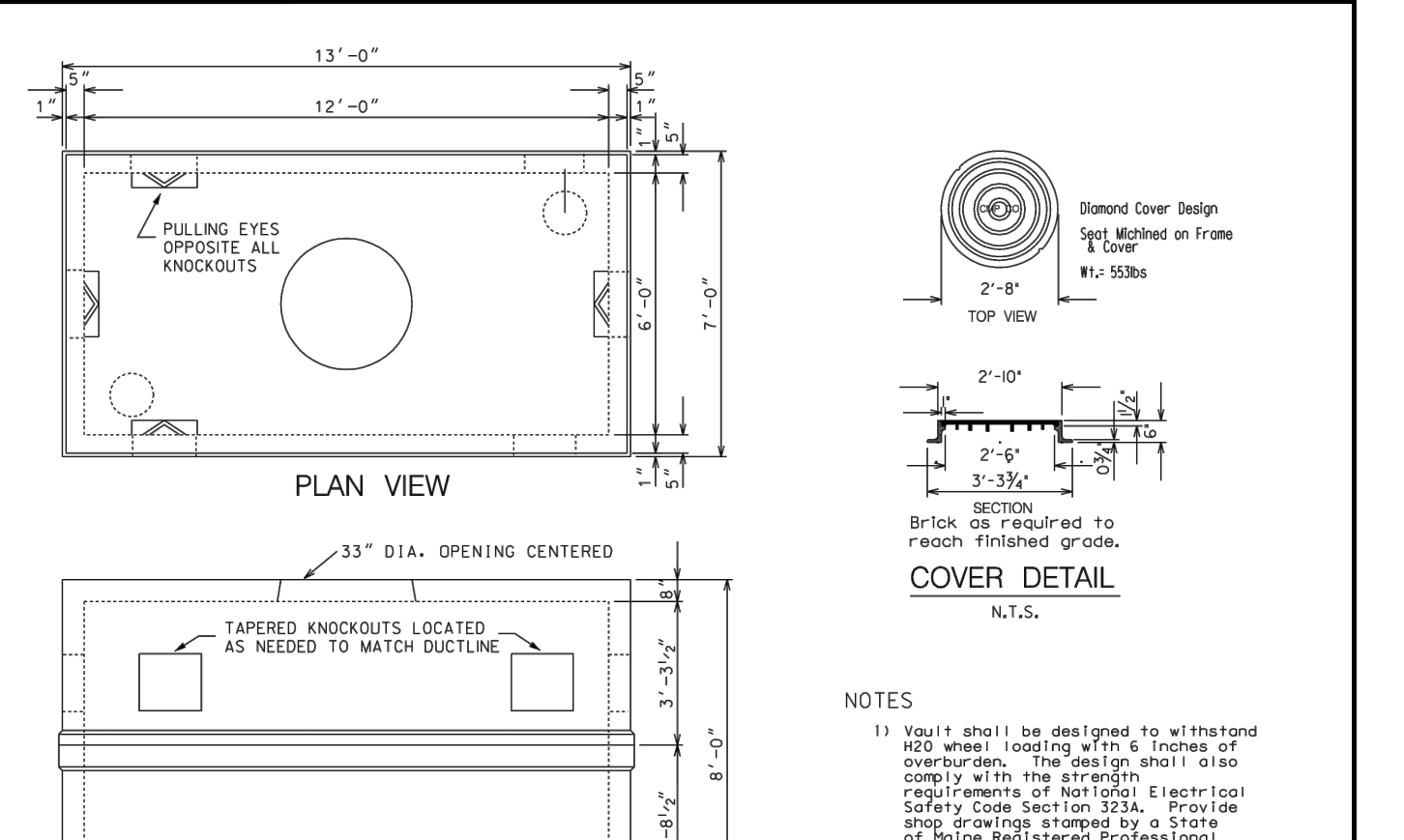


- NOTES:
1. FOR CONDUIT TYPES AND SIZES SEE ELECTRICAL PLAN

(C) UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS
N.T.S.

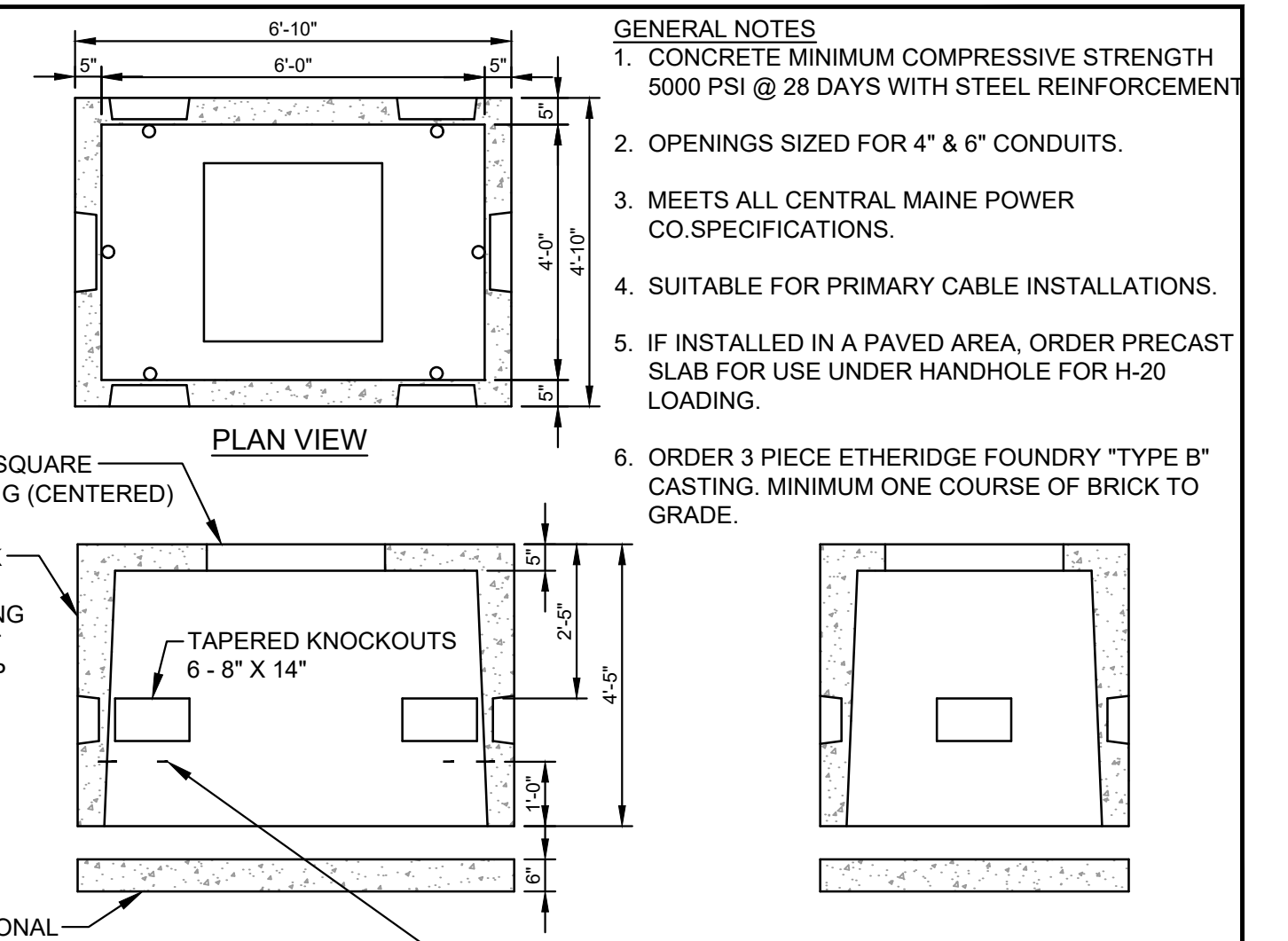


(F) SECONDARY ELECTRICAL TRENCH DETAIL
N.T.S.



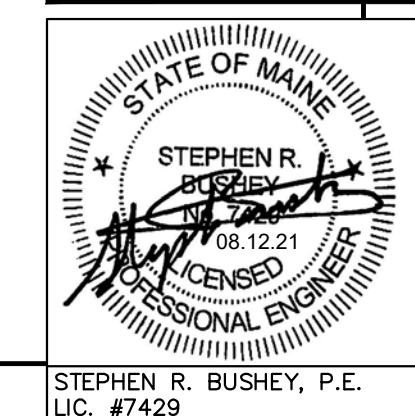
- NOTES:
- 1) Vault shall be designed to withstand H20 wheel loading with 6 inches of overburden. The design shall also comply with the strength requirements of National Electrical Safety Code Section 353A. Provide shop drawings stamped by a State of Maine Registered Professional Engineer upon Request.
 - 2) Joints sealed with asphalt.
 - 3) Mountings for cable racks etc. cast in wall by further plans or field located.
 - 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.



(G) SPLICE BOX DETAIL
N.T.S.

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

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



GORRELL PALMER

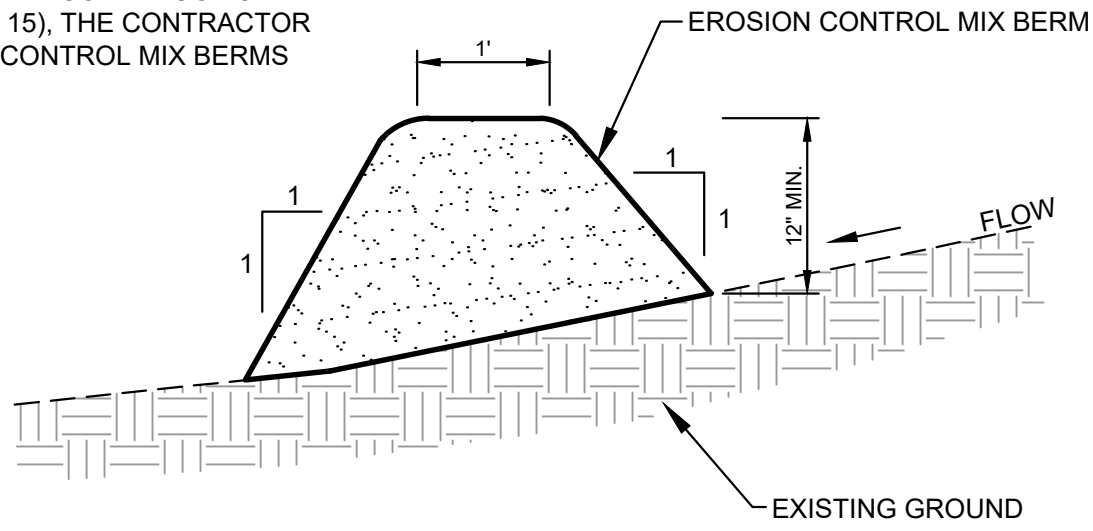
Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

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

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Z - CAD\DWG\382401-DETAILS.dwg - 8/12/2021 9:03 AM

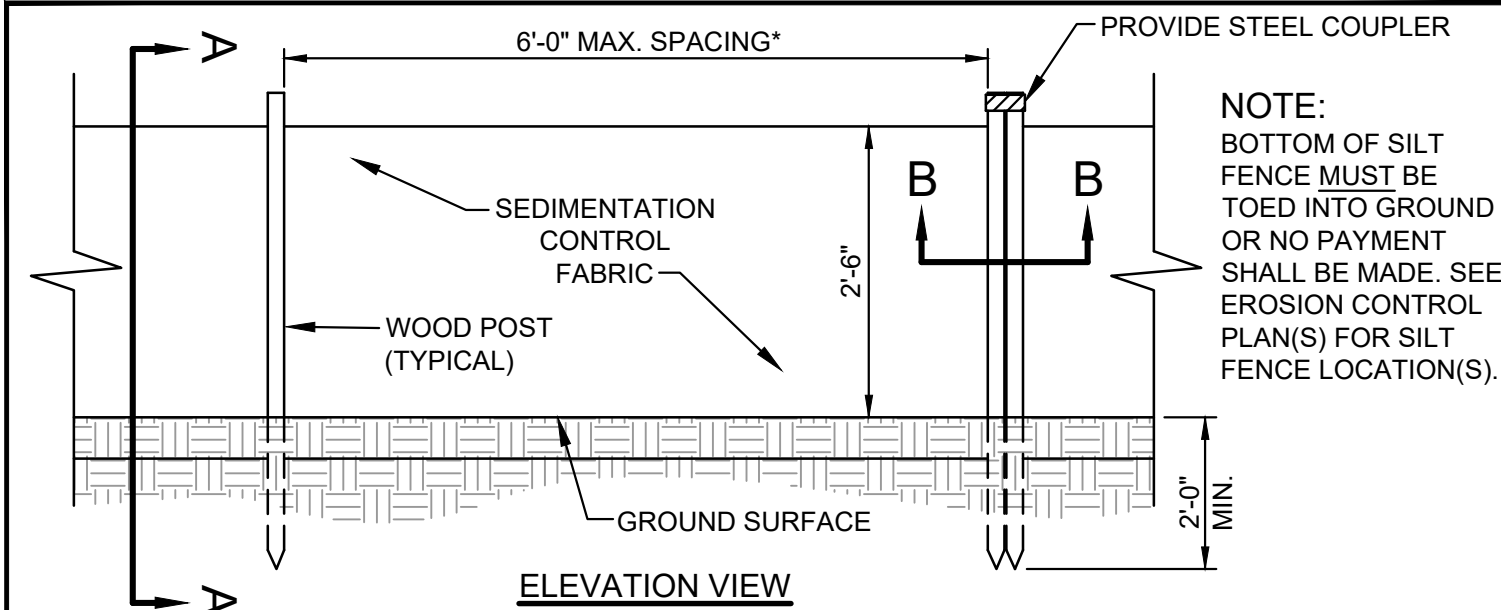
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



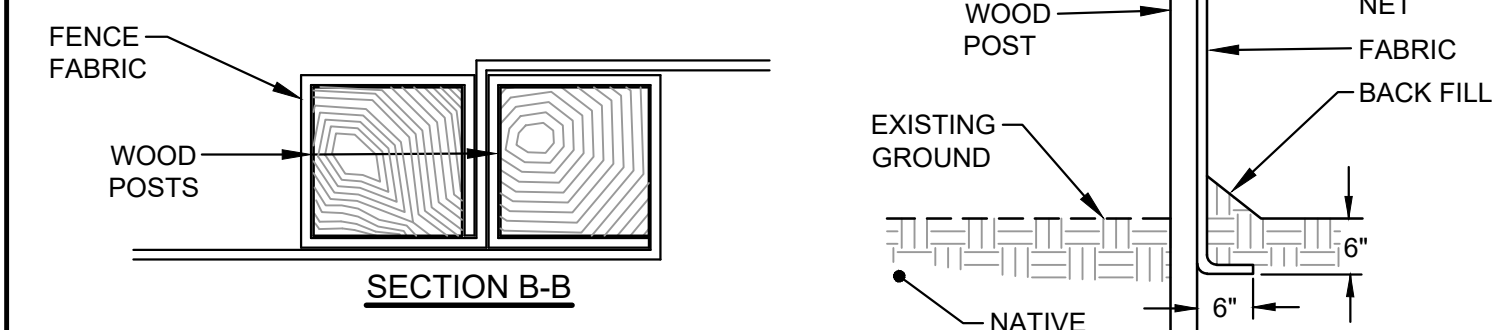
EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- 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.

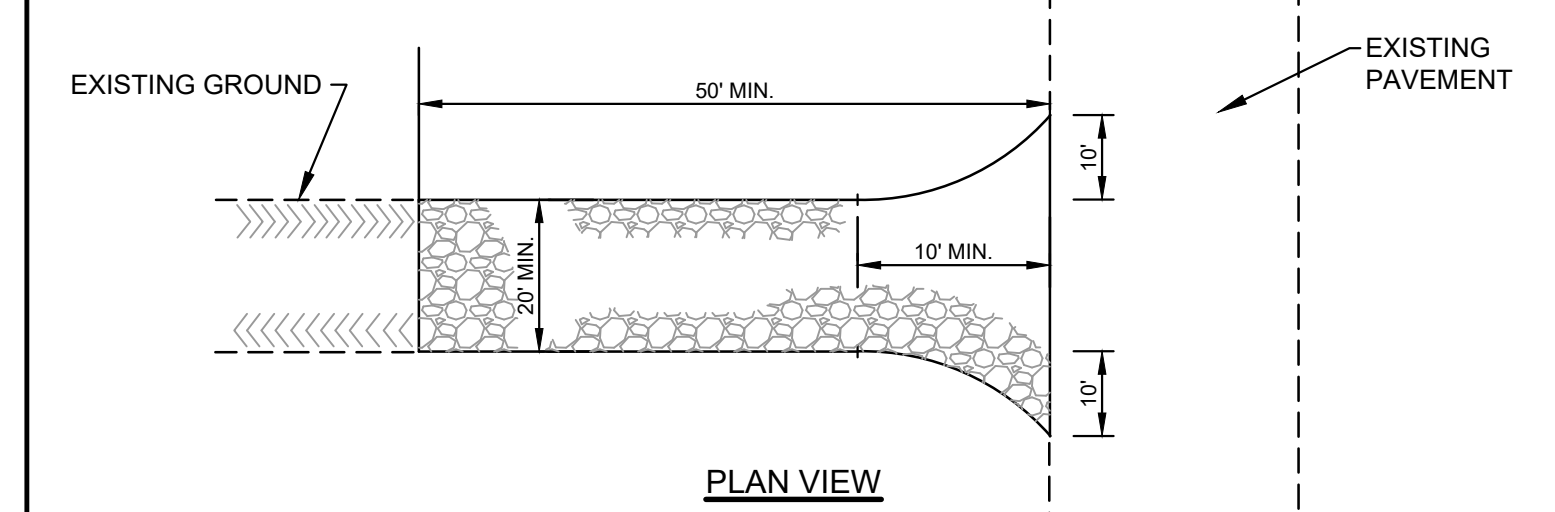
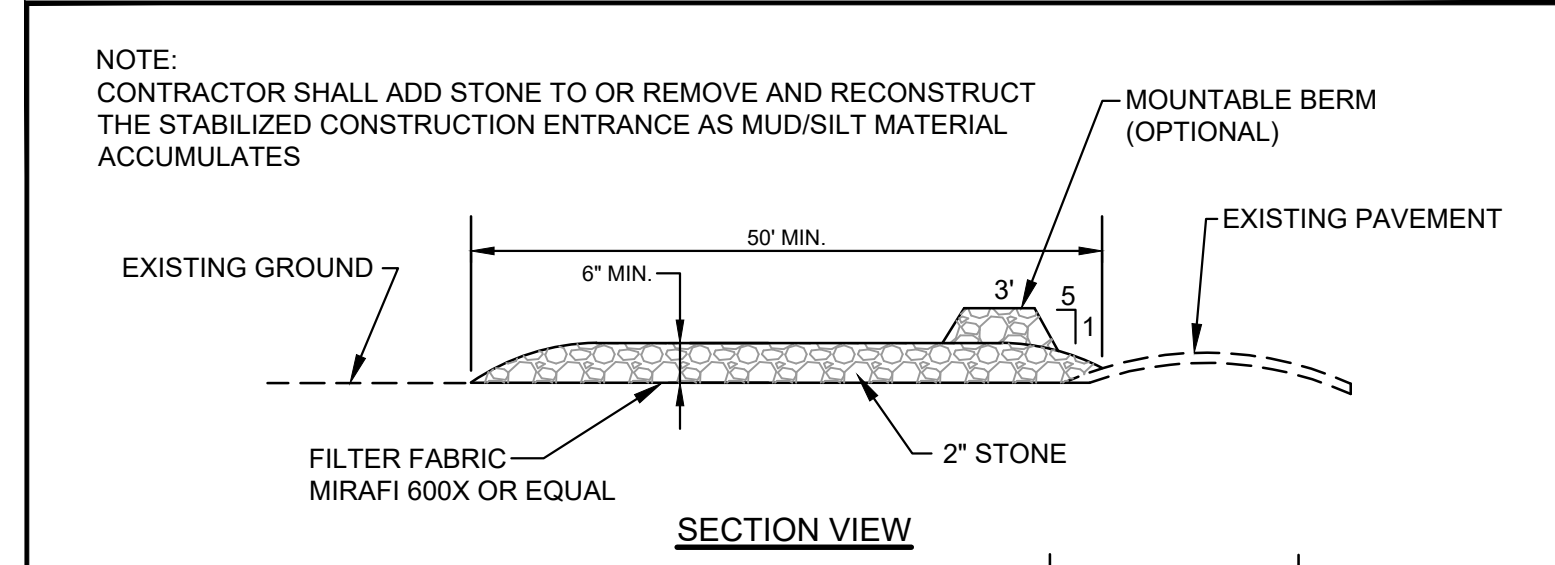
A **EROSION CONTROL MIX BERM DETAIL**
N.T.S.



NOTE:
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".



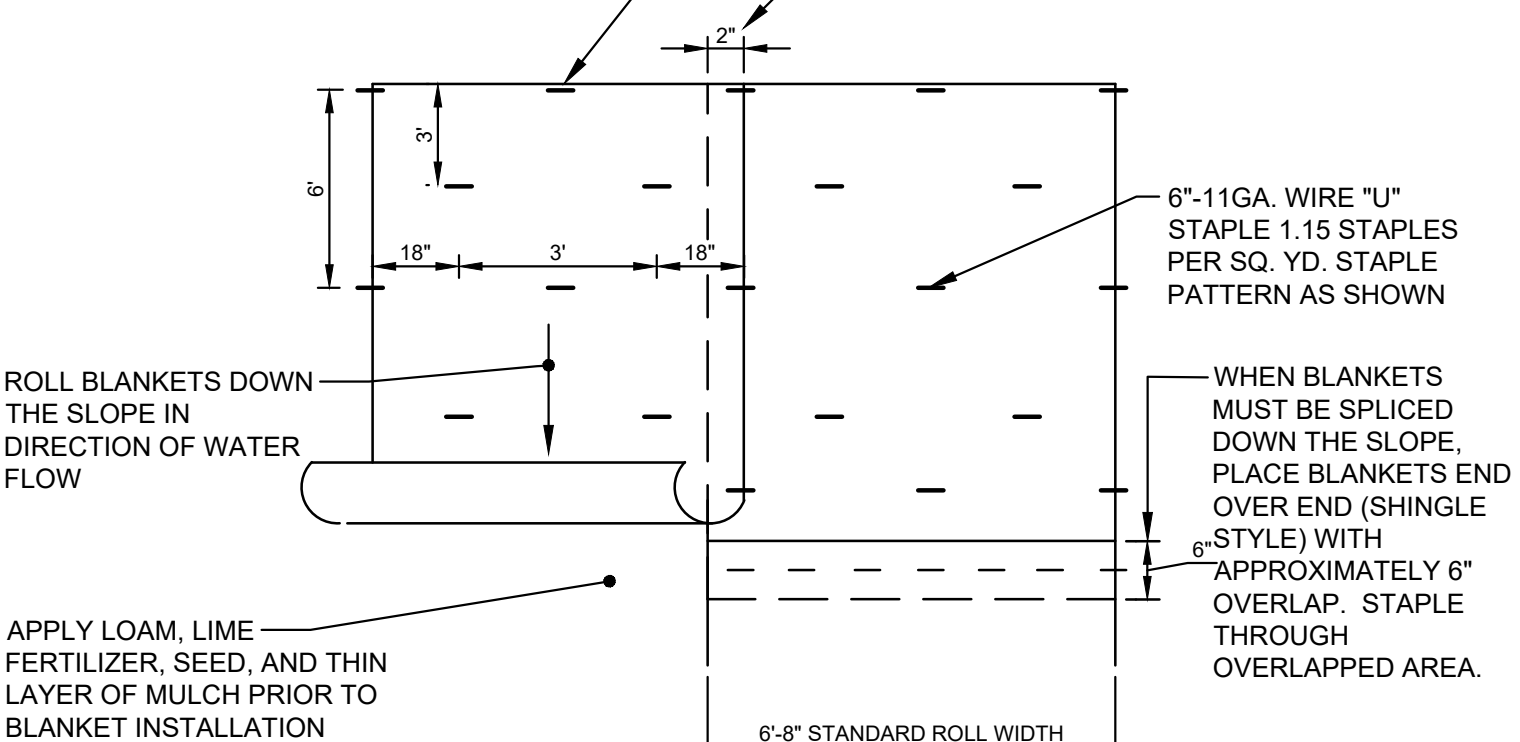
B **SILTATION FENCE DETAIL**
N.T.S.



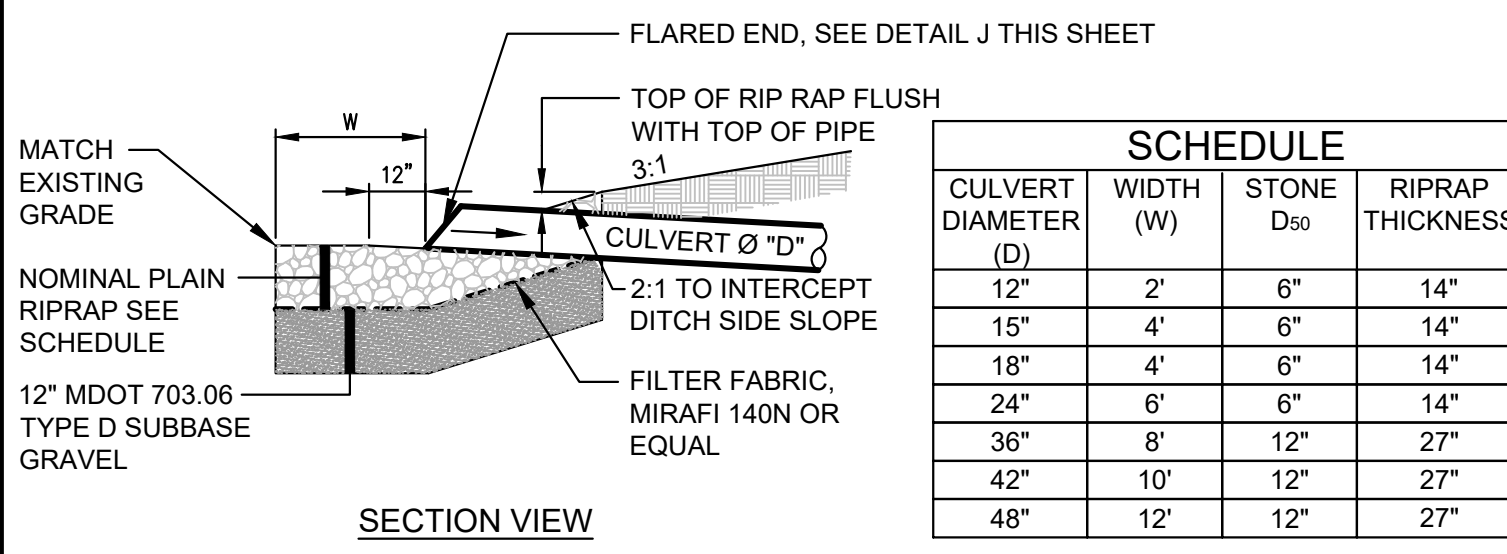
C **STABILIZED CONSTRUCTION ENTRANCE DETAIL**
N.T.S.

BEGIN AT THE TOP OF SLOPE BY ANCHORING BLANKET IN AN 18" DEEP X 24" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP



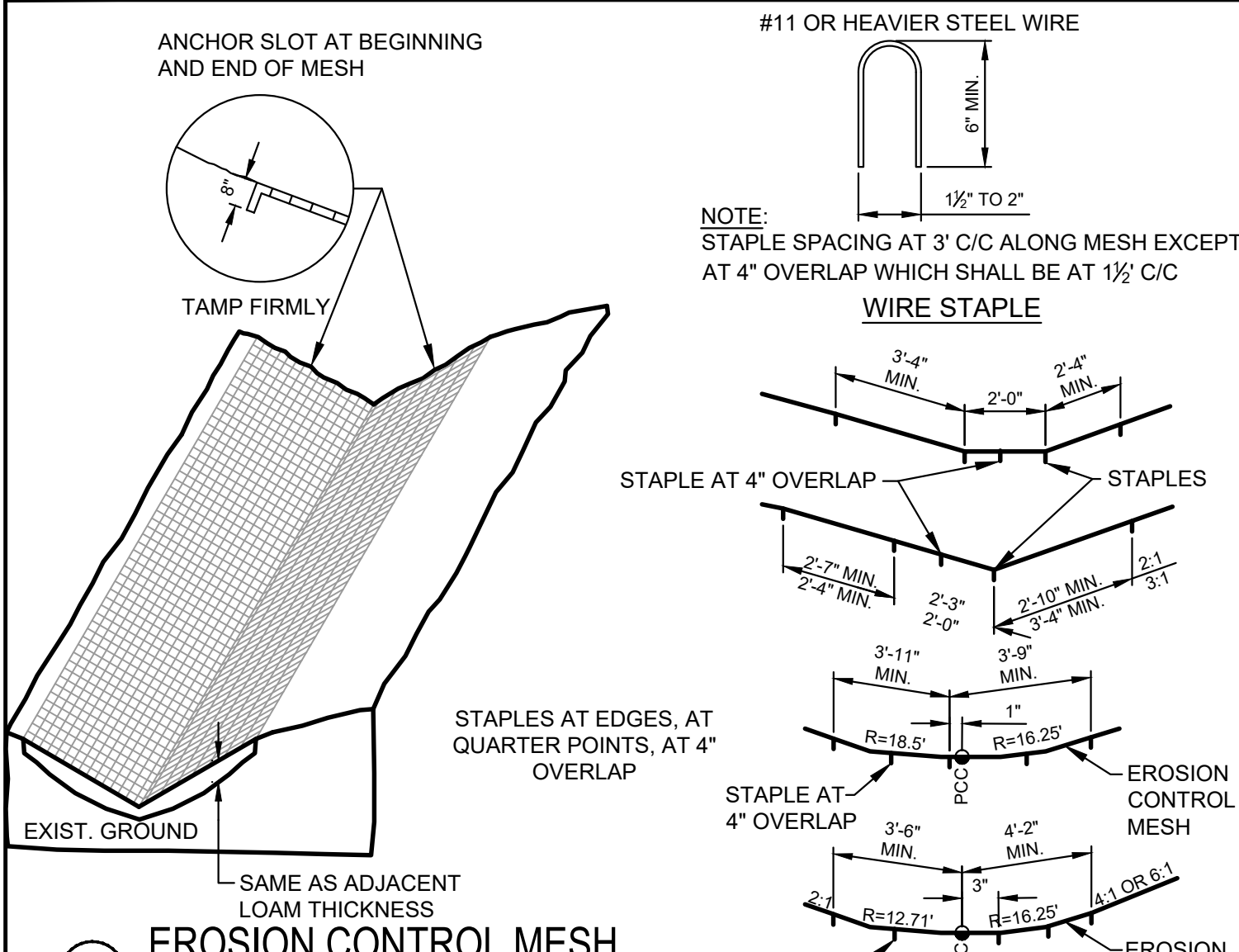
G **EROSION CONTROL BLANKET SLOPE STABILIZATION DETAIL**
N.T.S.



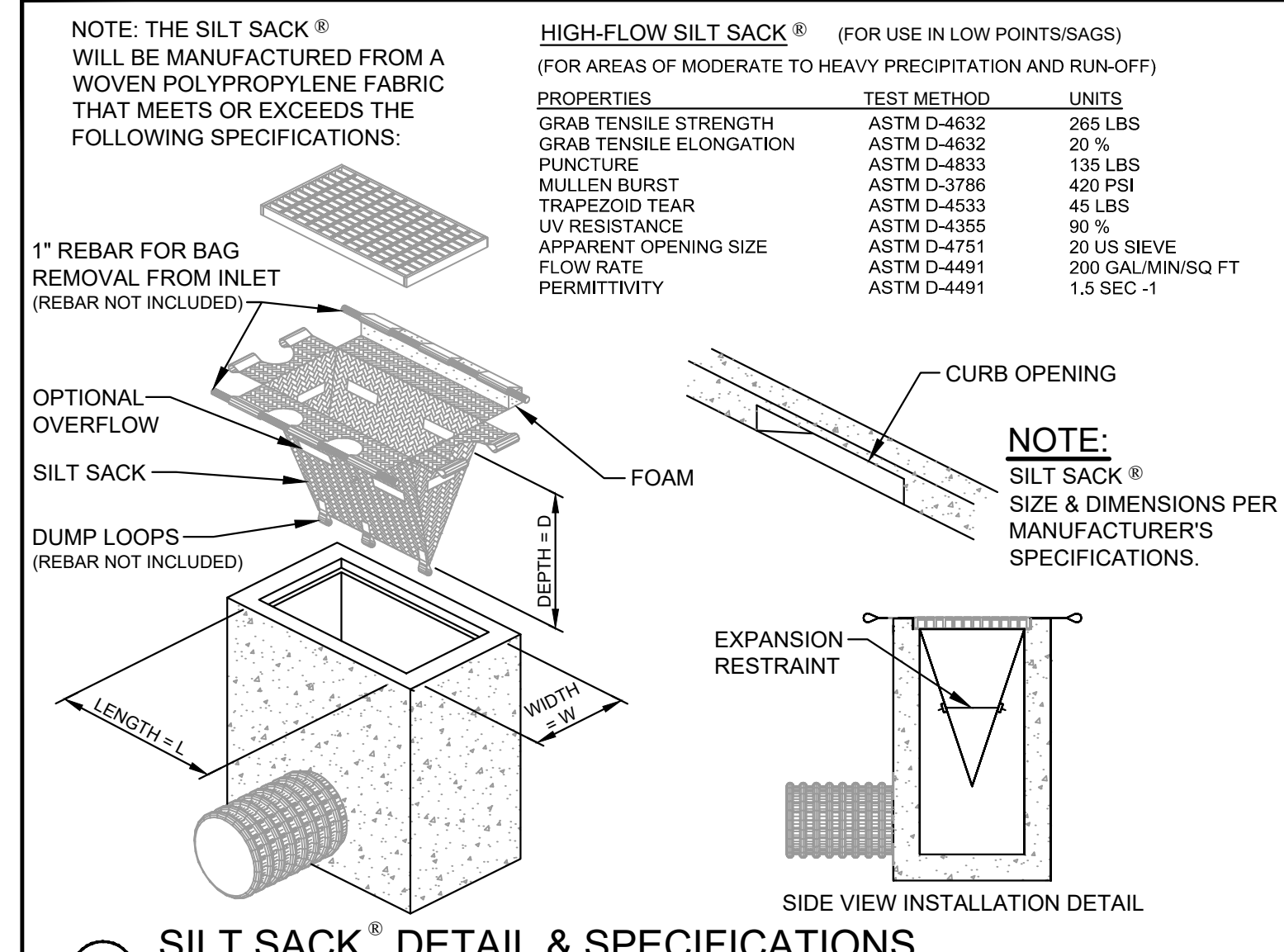
SCHEDULE			
CULVERT DIAMETER (D)	WIDTH (W)	STONE D ₅₀	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"

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.

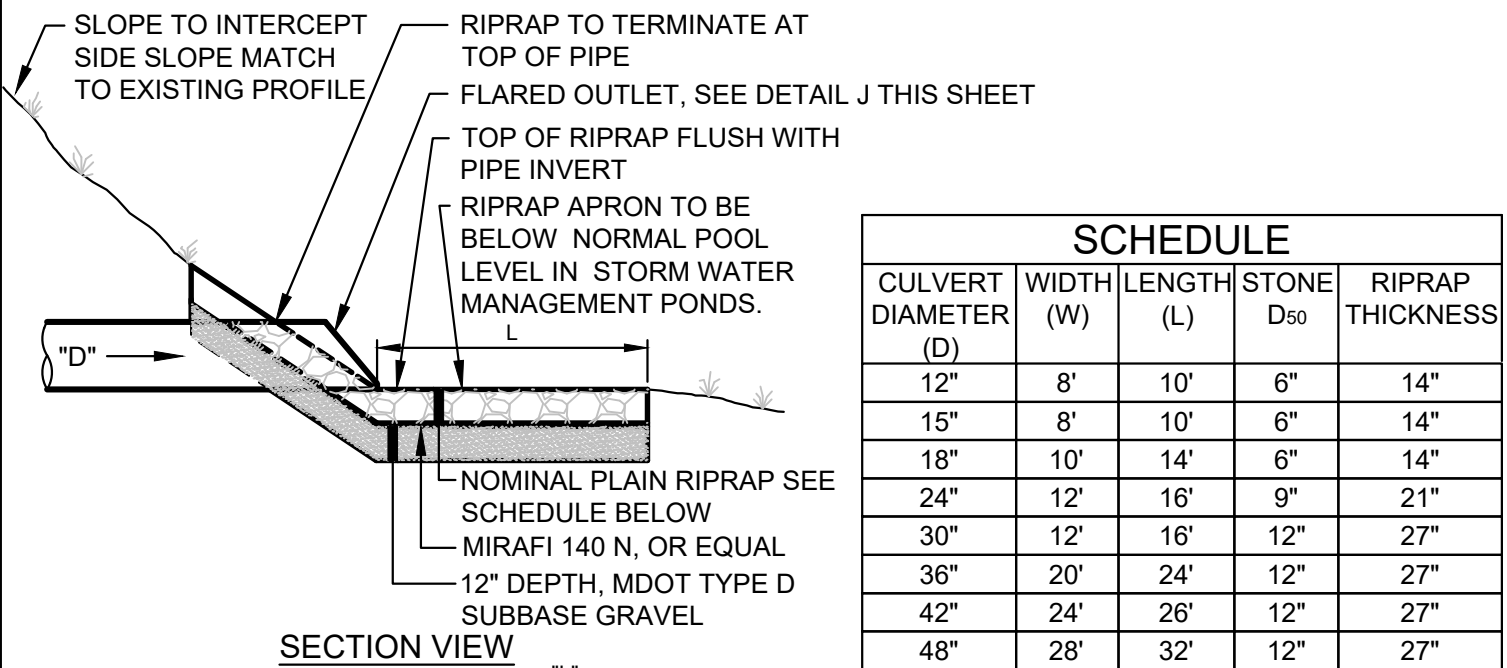
D **PIPE/CULVERT INLET APRON**
N.T.S.



E **EROSION CONTROL MESH**
N.T.S.



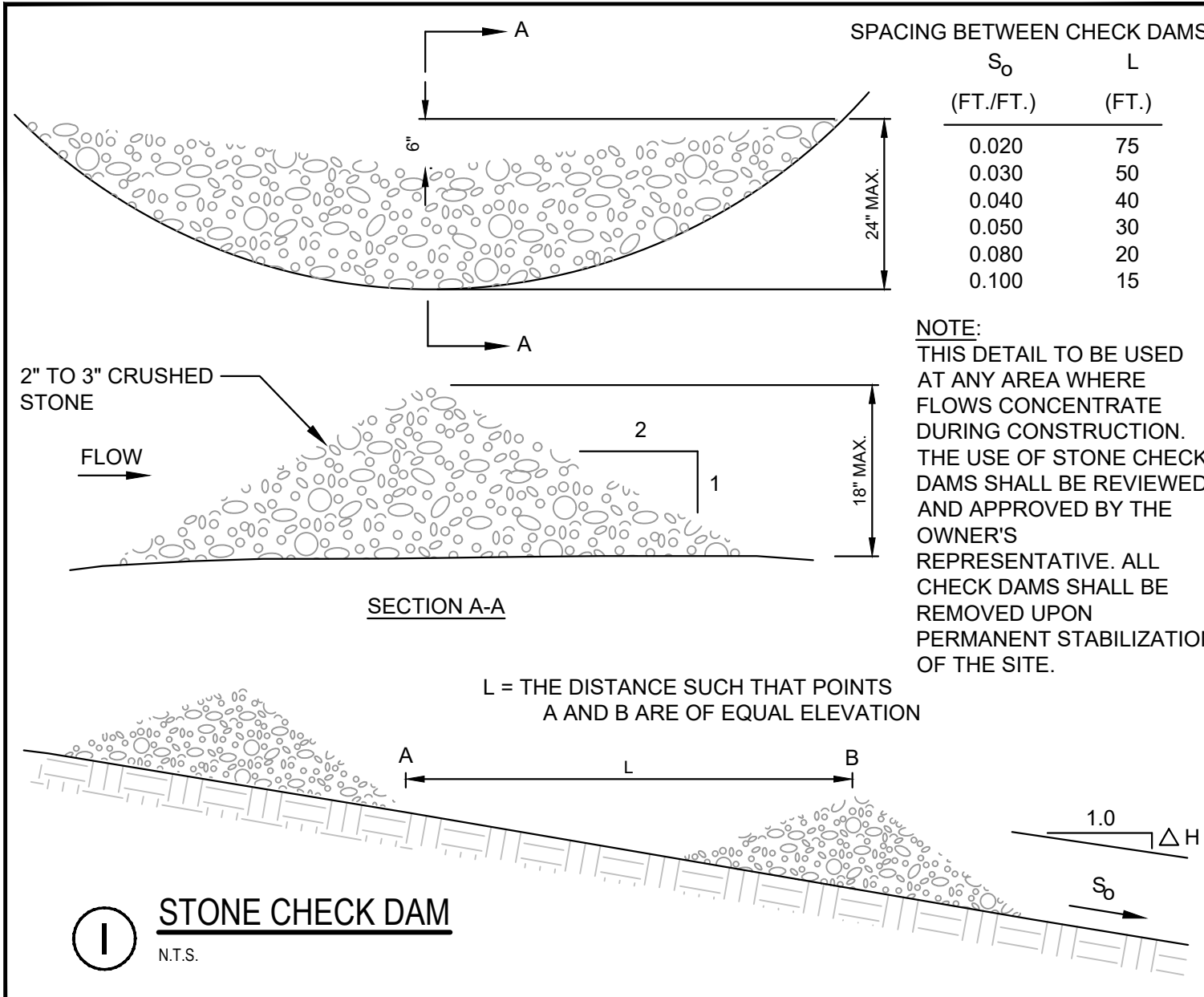
F **SILT SACK® DETAIL & SPECIFICATIONS**
N.T.S.



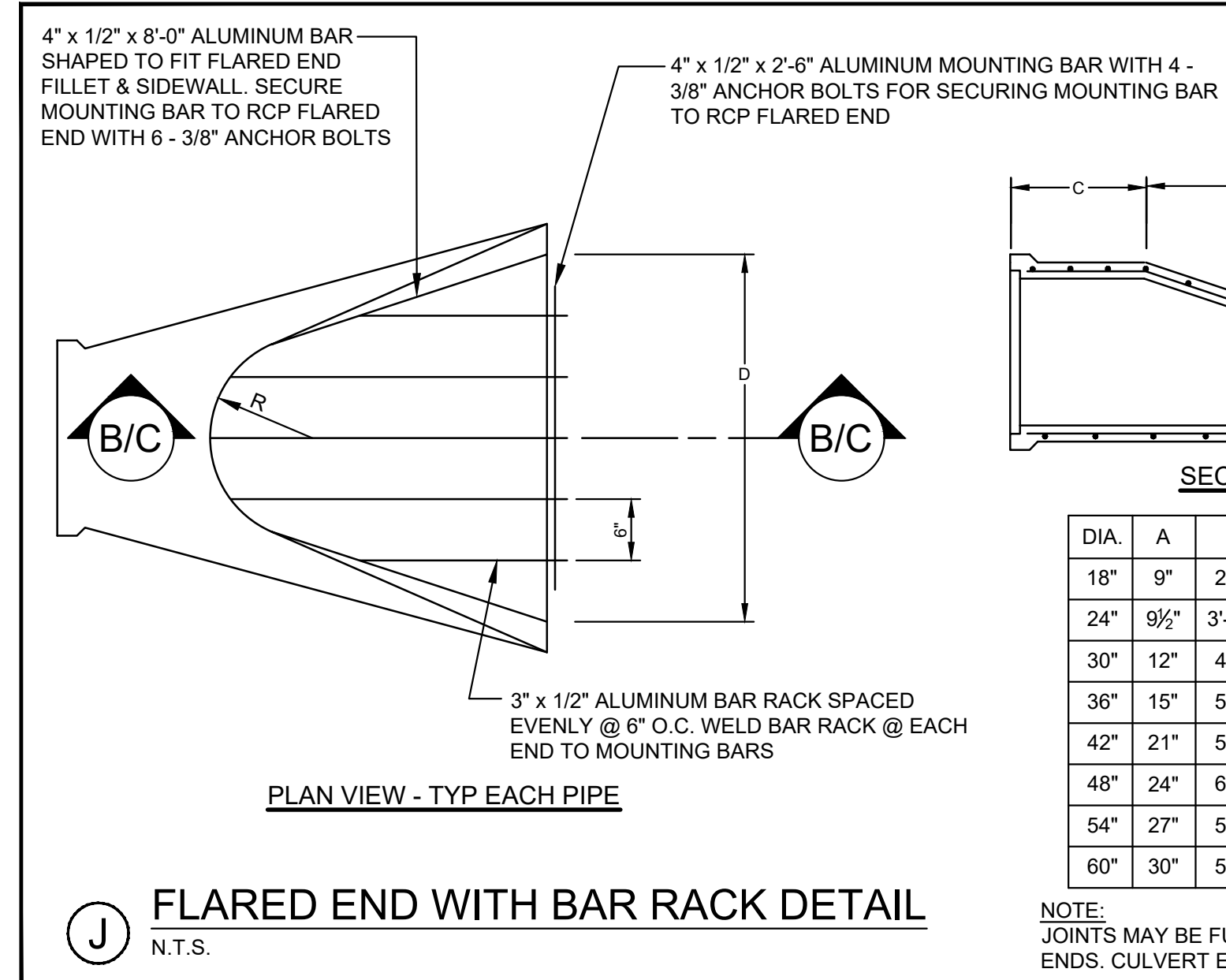
SCHEDULE			
CULVERT DIAMETER (D)	WIDTH (W)	STONE D ₅₀	RIPRAP THICKNESS
12"	8'	10'	6"
15"	8'	10'	6"
18"	10'	14'	6"
24"	12'	16'	9"
30"	12'	16'	12"
36"	20'	24'	12"
42"	24'	26'	12"
48"	28'	32'	12"

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.

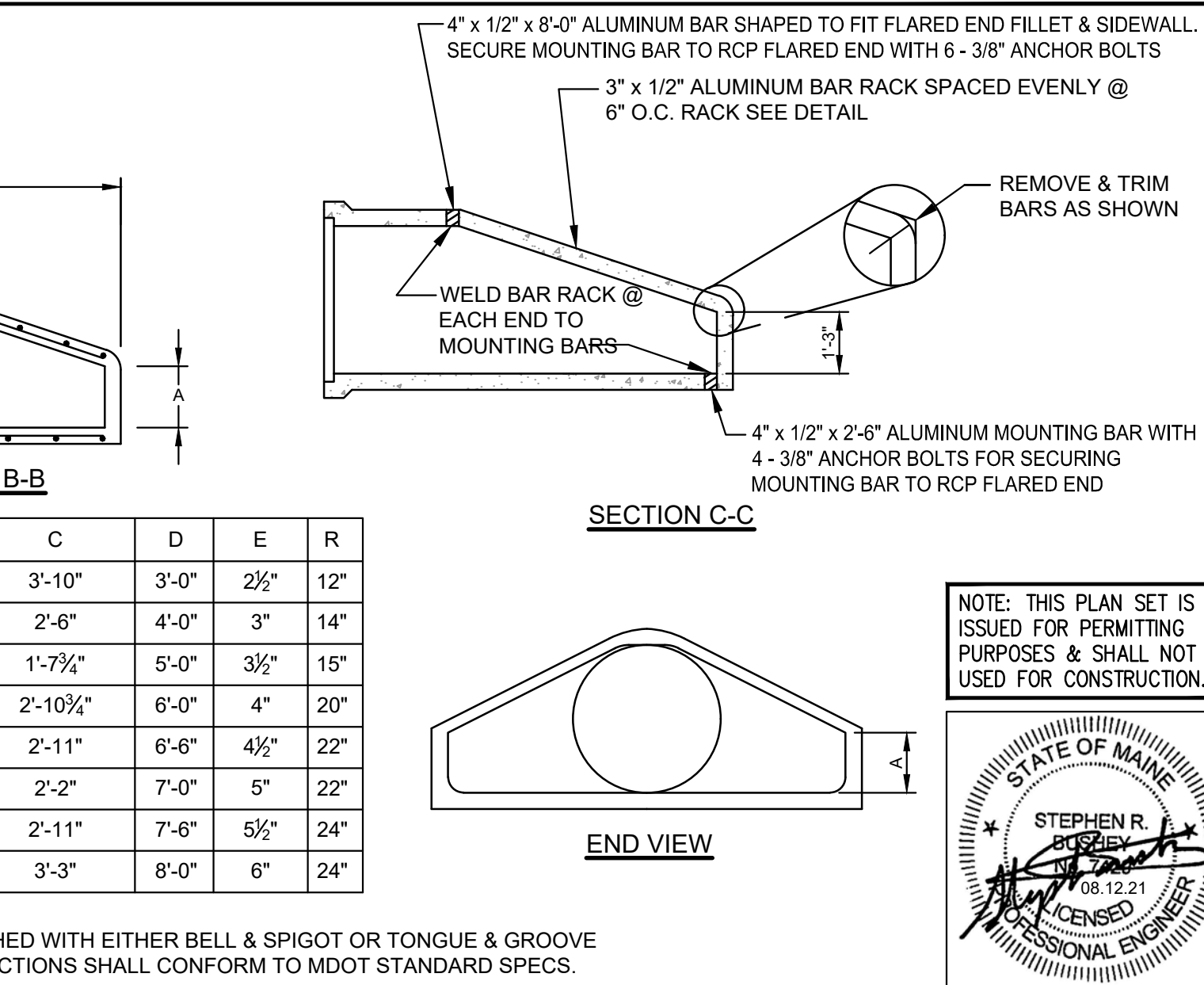
H **PIPE/CULVERT OUTLET APRON**
N.T.S.



I **STONE CHECK DAM**
N.T.S.

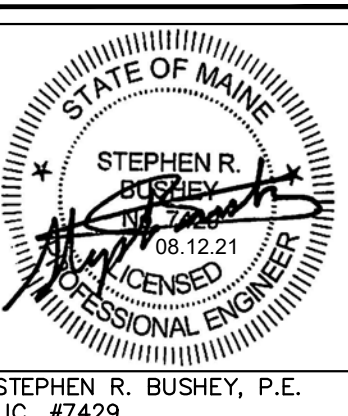


J **FLARED END WITH BAR RACK DETAIL**
N.T.S.



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.



Rev.	Date	Revision
1	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
2	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW

Rev.	Date	Revision
1	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
2	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		
This plan shall not be modified without written permission from Gorrell Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrell Palmer.		



GORRELL PALMER

Relationships. Responsiveness. Results.
www.gorrellpalmer.com
207.772.2515

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
-------------	-------

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\Y - CAD\DWG\382401--DETAILS.dwg -- 8/12/2021 9:04 AM

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 THE 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 QUALIFICATION OF THE PERSON MAKING THE INSPECTIONS AND THE INSPECTION DATE, LOCATION, 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 THAN 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 SWEEPED 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 1/4 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 1/2 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 APURTENANCES.
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 APURTENANCES.
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 PRECEDING 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 PRECEDING 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

STACKPILES 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 THROUGH 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 THAN 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 15TH, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES, FINALLY GRADED AREAS SHALL BE FINALLY 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. 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 PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

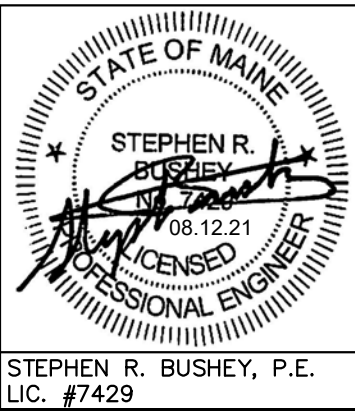
3. **STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS** -- BY SEPTEMBER 15 THE APPLICANT SHALL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE APPLICANT FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY SEPTEMBER 1 THE APPLICANT SHALL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. 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 SOIL BEFORE NOVEMBER 1, THEN THE APPLICANT SHALL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.

STABILIZE THE SOIL WITH SOD -- THE APPLICANT SHALL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY SEPTEMBER 15. 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, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT SHALL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

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



Drawing No.

C-8.6

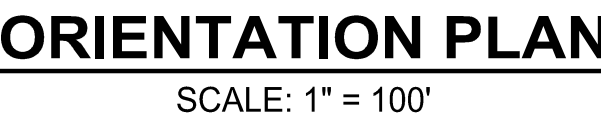
Drawing Name:	EROSION CONTROL NOTES
Project:	Homeless Services Center 654 Riverside Street, Portland, Maine
Client/Owner:	DC Predevelopment LLC 100 COMMERCIAL STREET, SUITE 414, PORTLAND, ME 04101 PH. 207.772.7673

Design:	SRB	Draft:	CDD	Date:	JUNE 2021
Checked:	SRB	Scale:	AS NOTED	Job No.:	3824.01
File Name:	382401--DETAILS.dwg				
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.					



Rev. Date Revision

Rev. Date Revision



STATE OF MAINE

STEPHEN R. BUSHEY

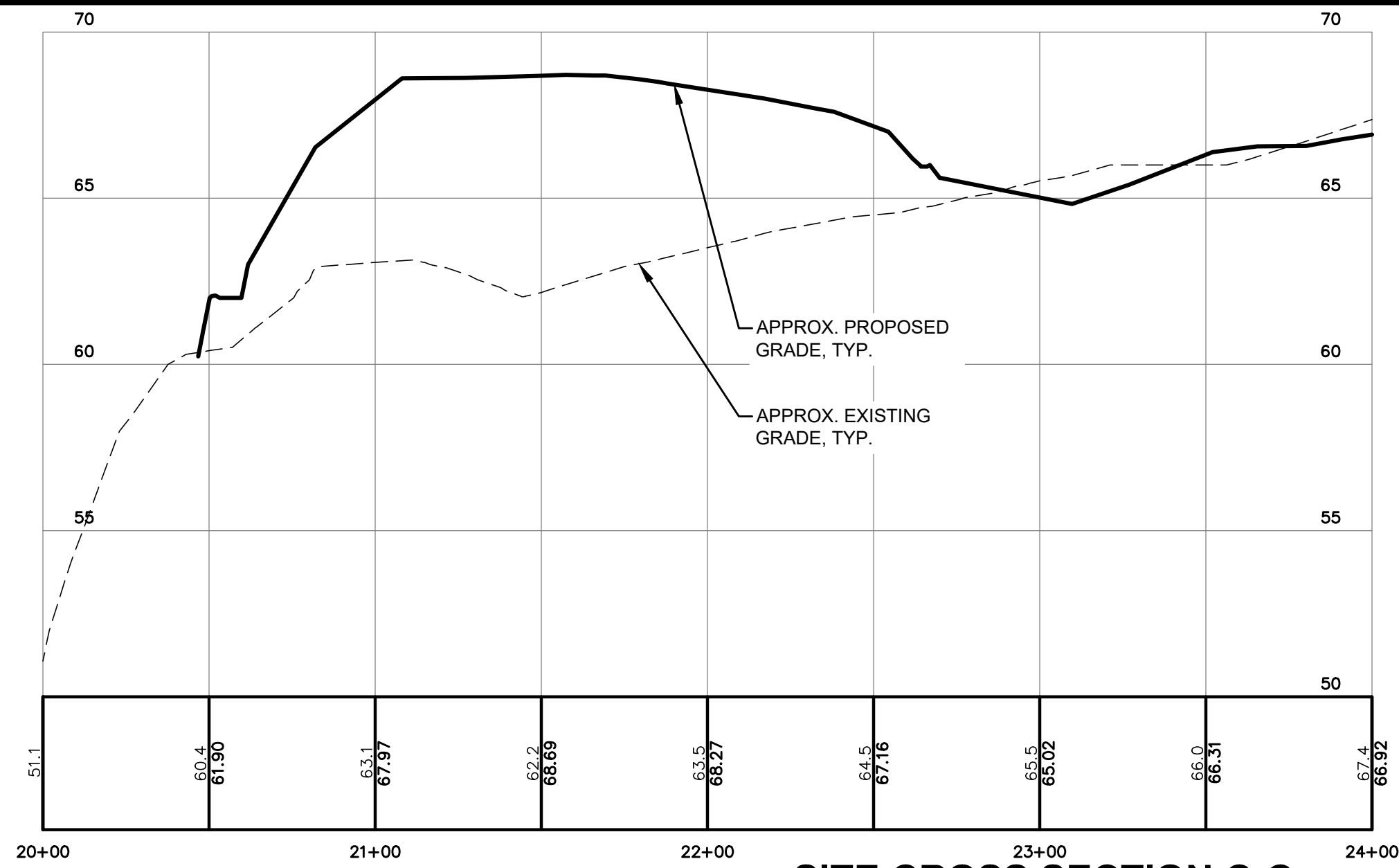
08.12.21

PROFESSIONAL ENGINEER

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

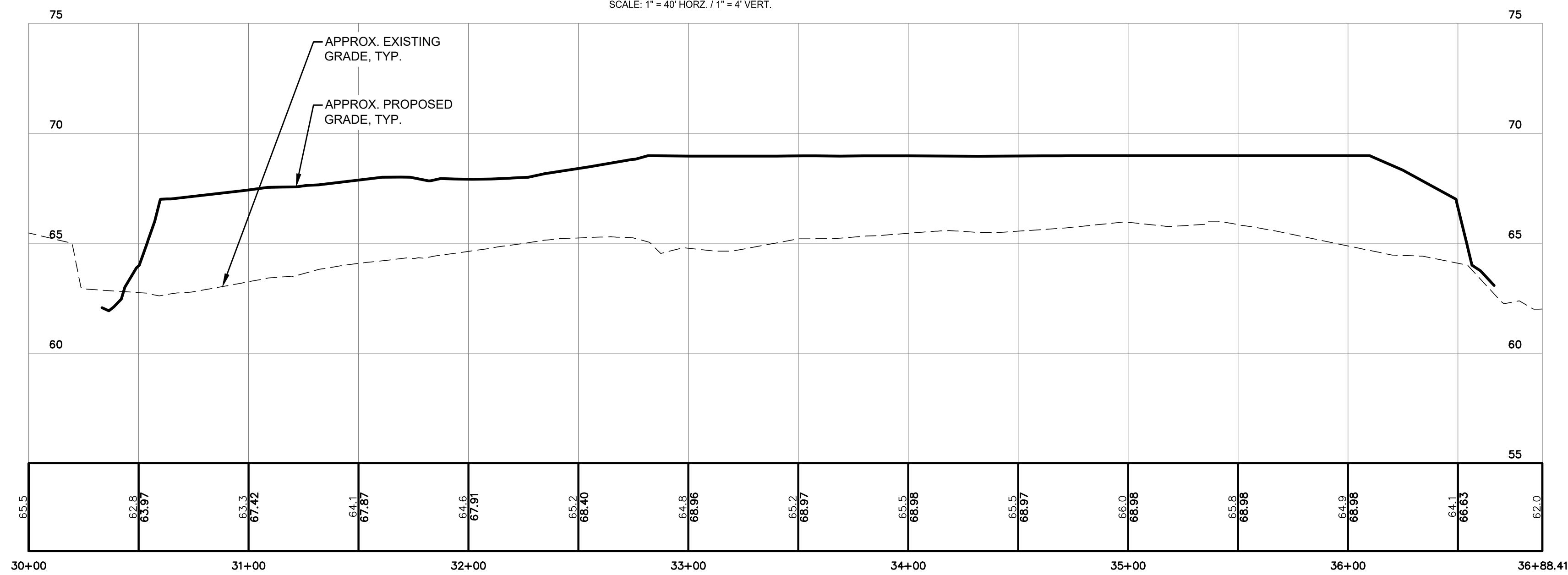
Drawing No.
C-9.1

U:\3824.01_Portland Homeless Center_Developer Collaborative_Portland, ME\3 - CAD\DWG\382401-SITE CROSS SECTIONS.dwg -- 8/12/2021 9:41 AM



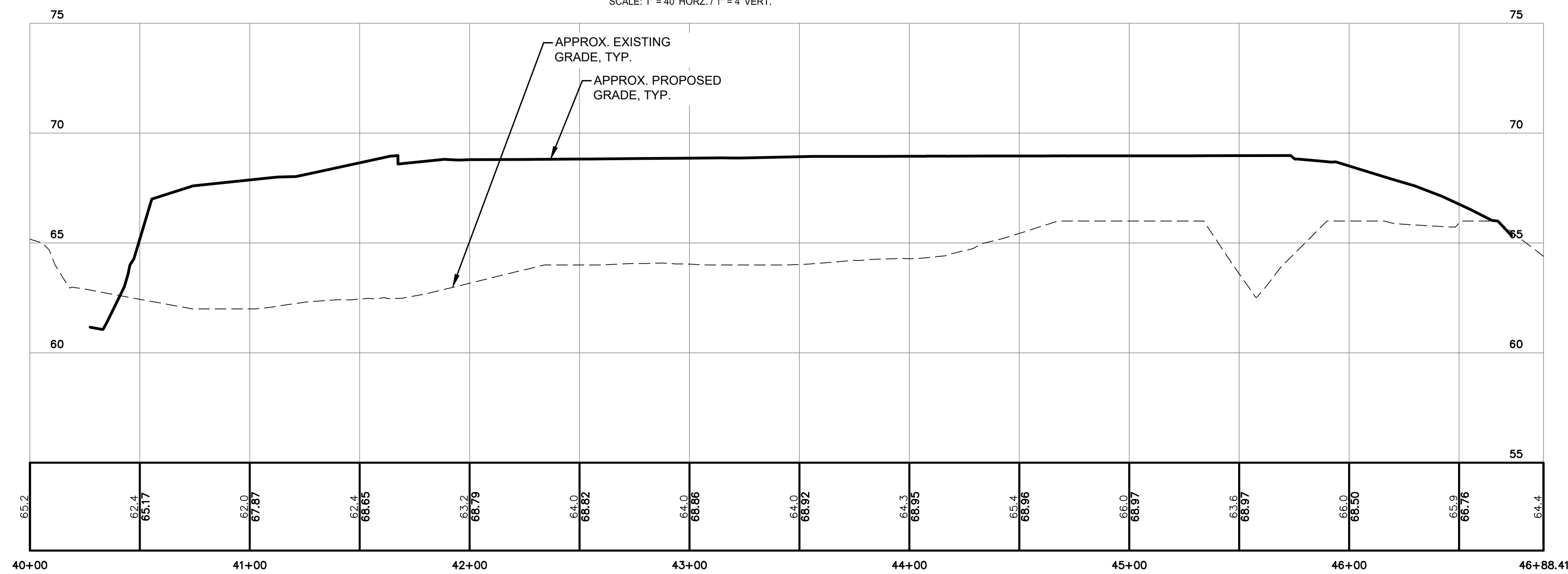
SITE CROSS SECTION C-C

SCALE: 1" = 40' HORZ. / 1" = 4' VERT.



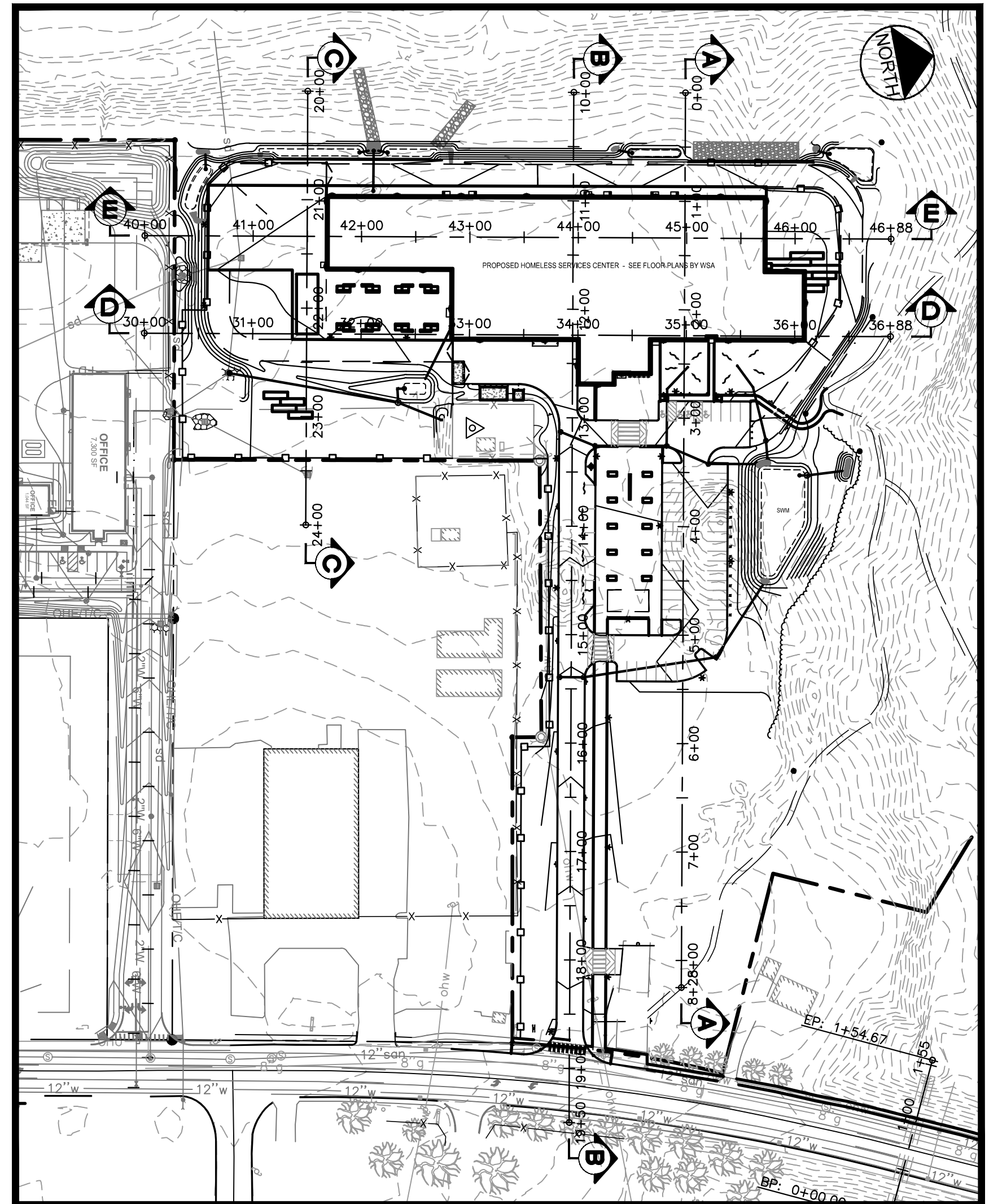
SITE CROSS SECTION D-D

SCALE: 1" = 40' HORZ. / 1" = 4' VERT.



SITE CROSS SECTION E-E

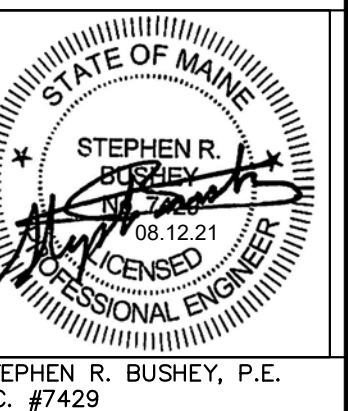
SCALE: 1" = 40' HORZ. / 1" = 4' VERT.



ORIENTATION PLAN

SCALE: 1" = 100'

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



Rev.	Date	Revision

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

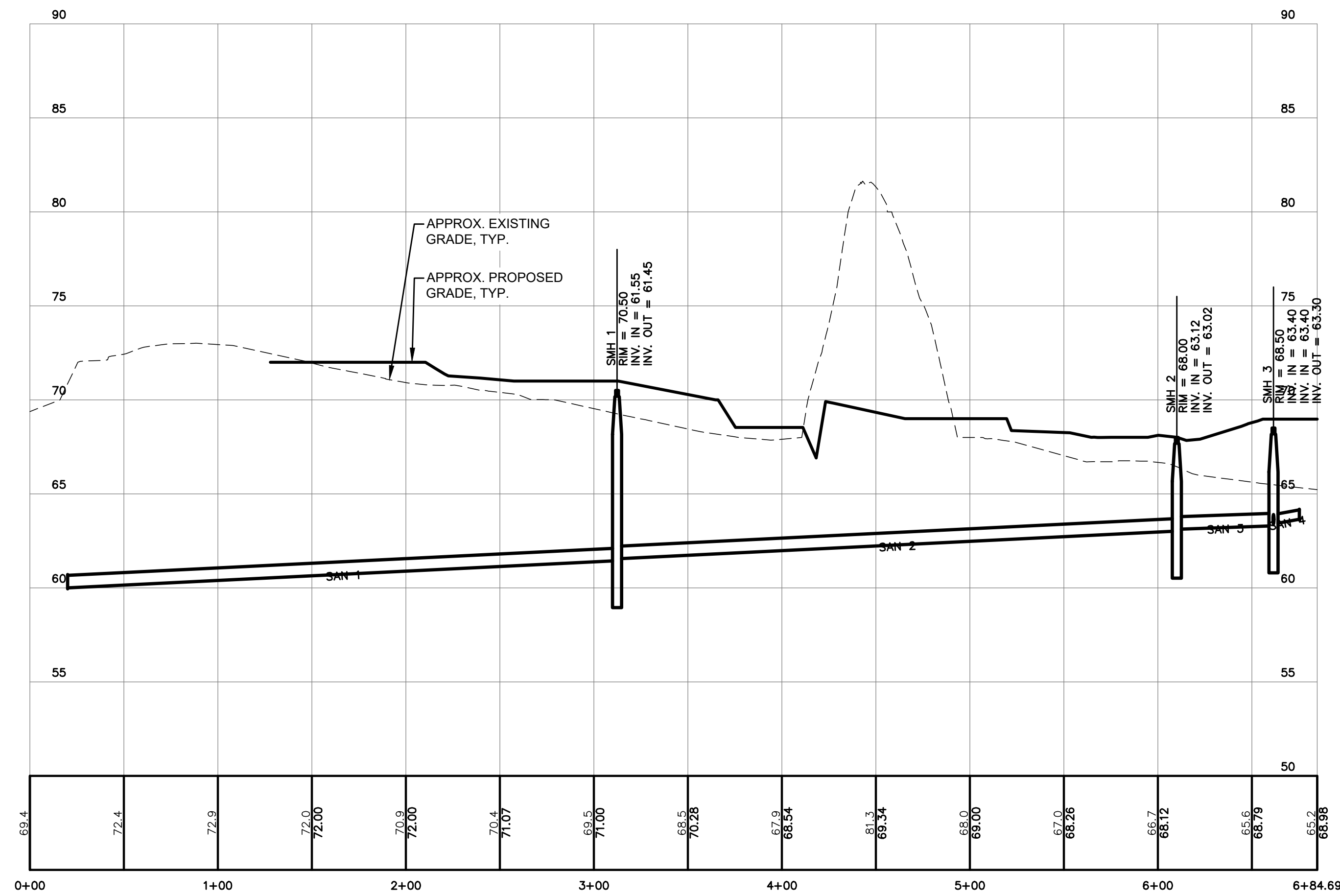


Relationships. Responsiveness. Results.
www.gorriilpalmer.com
207.772.2515

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

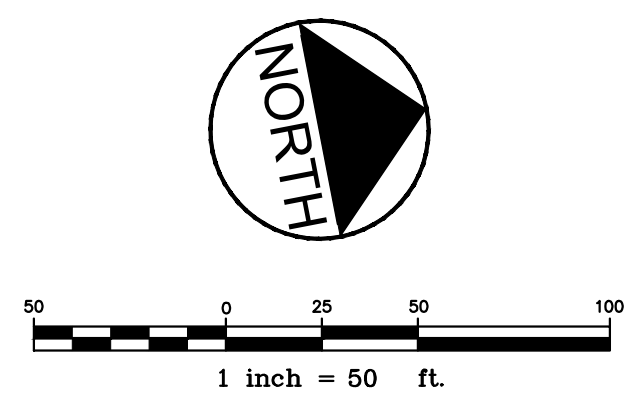
Drawing No.

C-9.2

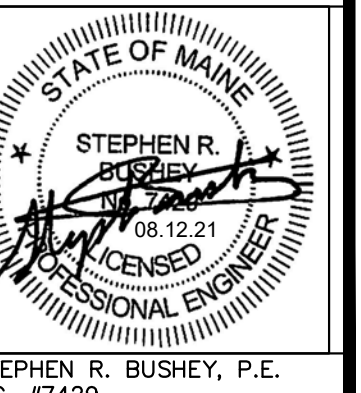


SANITARY SEWER STRUCTURE SCHEDULE				
STRUCTURE	SIZE	RIM	INV. IN./SIZE (FROM)	INV. OUT./SIZE (TO)
EX SMH 10	4'	71.31	52.00/8"(SMH 1) 60.70/12"(EX SMH 11)	52.62/12"(EX SMH 9)
SMH 1	4'	70.50	61.55/8"(SMH 2)	61.45/8"(EX SMH 10)
SMH 2	4'	68.00	63.12/8"(SMH 3)	63.02/8"(SMH 1)
SMH 3	4'	68.50	63.40/6"(BLDG 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.



Rev.	Date	Revision

2	2021.08.12	RESUBMITTED TO CITY OF PORTLAND PER STAFF COMMENTS
1	2021.06.18	SUBMITTED TO CITY OF PORTLAND FOR REVIEW
Rev.	Date	Revision

Design: SRB	Draft: CDD	Date: JUNE 2021
Checked: SRB	Scale: AS NOTED	Job No.: 3824.01
File Name: 382401--UTIL.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.		



Relationships. Responsiveness. Results.
www.gorripalmer.com
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

CITY OF PORTLAND
HOMELESS SERVICES CENTER
654 RIVERSIDE STREET
PORTLAND, MAINE

OWNER:
DEVELOPER'S
COLLABORATIVE AND
CITY OF PORTLAND

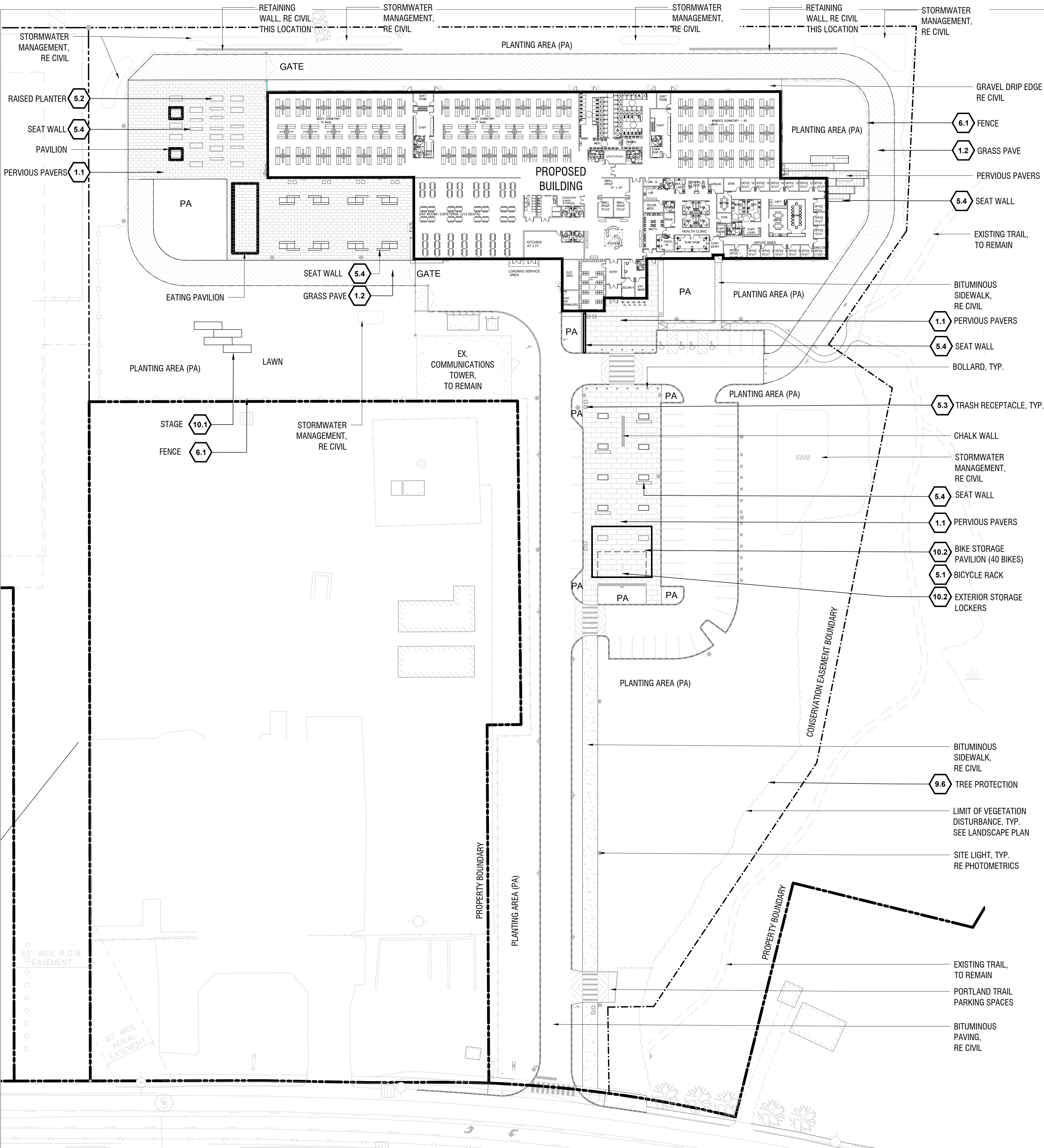
CITY RESUBMISSION 08.12.2021

JUNE 18, 2021

MATERIALS PLAN

L 1-00

NOT FOR CONSTRUCTION



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:

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	7.0	SITE LIGHTING	X/XX-XX
2.0	JOINTING		8.0	DRAINAGE	
XX	NOT USED AT THIS TIME	X/XX-XX	XX	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		9.0	PLANTING AND LANDSCAPE	
XX	NOT USED AT THIS TIME	X/XX-XX	9.1	DECIDUOUS TREE PLANTING	1/L3-01
4.0	SITE WALLS/ EMBANKMENTS		9.2	EVERGREEN TREE PLANTING	2/L3-01
XX	NOT USED AT THIS TIME	X/XX-XX	9.3	SHRUB PLANTING	3/L3-01
5.0	SITE FURNITURE		9.4	PERENNIAL PLANTING	4/L3-01
5.1	BICYCLE RACK	4/L3-00	9.5	STEEL EDGING	5/L3-01
5.2	RAISED PLANTER	3/L3-00	9.6	TREE PROTECTION	6/L3-01
5.3	TRASH RECEPTACLE	7/L3-00	10.0	MISCELLANEOUS ELEMENTS	
5.4	SEAT WALL	5/L3-00	10.1	STAGE	1/L3-02
			10.2	BIKE PAVILION	2/L3-02
			10.3	EXTERIOR STORAGE LOCKERS	3/L3-02

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
VC	VACCINIUM CORYMBOSUM	HIGH BUSH BLUEBERRY	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)

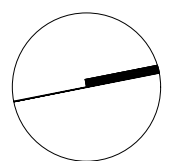
NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND CONSERVATION/WILDLIFE MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

NATIVE WILDFLOWER MIX (SEED MIX)

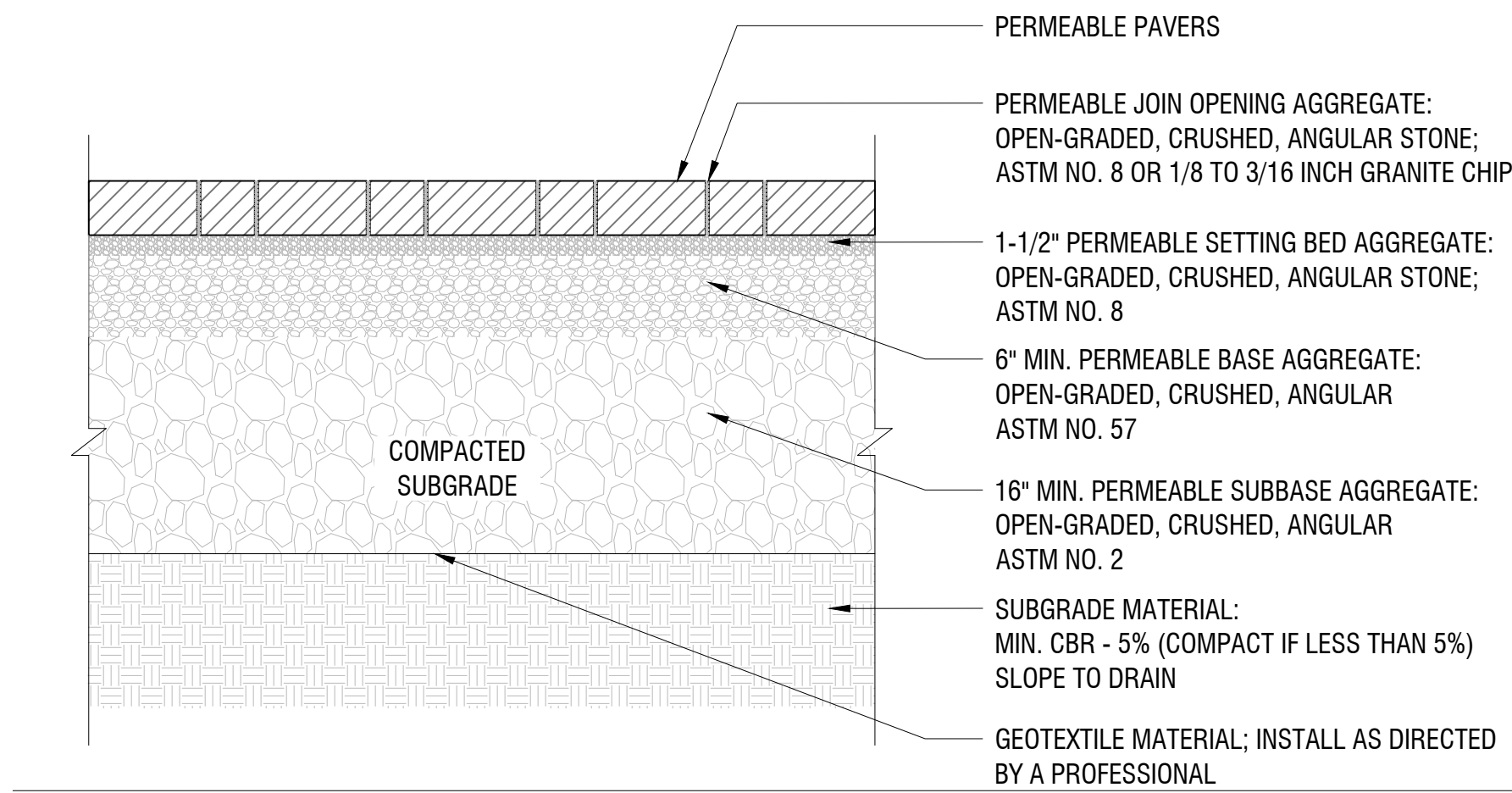
NEW ENGLAND WETLAND PLANT, INC.
"NEW ENGLAND SHOWY WILDFLOWER MIX"
APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB

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	SITE LIGHTING		
2.0			7.0	XX	NOT USED AT THIS TIME XXX-XX
XX	NOT USED AT THIS TIME	XXX-XX	DRAINAGE		
3.0			8.0	XX	NOT USED AT THIS TIME XXX-XX
XX	NOT USED AT THIS TIME	XXX-XX	PLANTING AND LANDSCAPE		
4.0			9.0	9.1	DECIDUOUS TREE PLANTING 1/L3-01
XX	NOT USED AT THIS TIME	XXX-XX	9.2	EVERGREEN TREE PLANTING	2/L3-01
5.0			9.3	SHRUB PLANTING	3/L3-01
5.1	BICYCLE RACK	4/L3-00	9.4	PERENNIAL PLANTING	4/L3-01
5.2	RAISED PLANTER	3/L3-00	9.5	STEEL EDGING	5/L3-01
5.3	TRASH RECEPTACLE	7/L3-00	9.6	TREE PROTECTION	6/L3-01
5.4	SEAT WALL	5/L3-00	MISCELLANEOUS ELEMENTS		
			10.0	10.1	STAGE 1/L3-02
				10.2	BIKE PAVILION 2/L3-02
				10.3	EXTERIOR STORAGE LOCKERS 3/L3-02

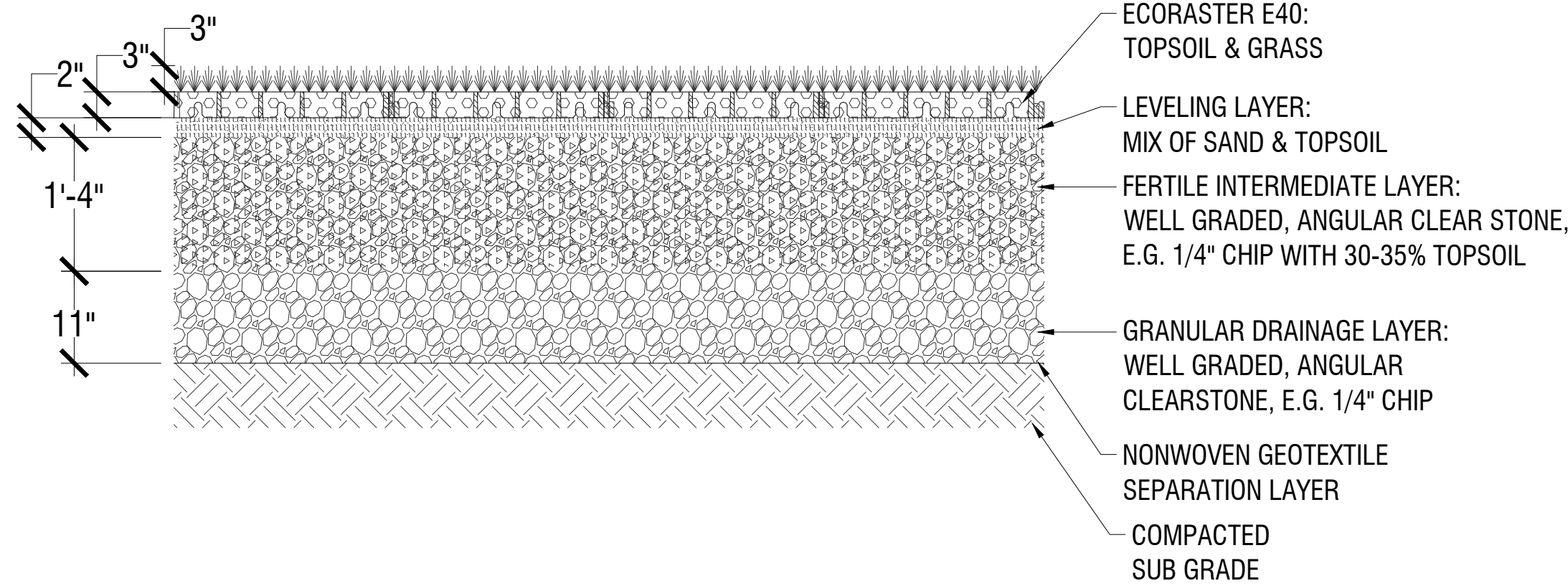


0 20 40 80



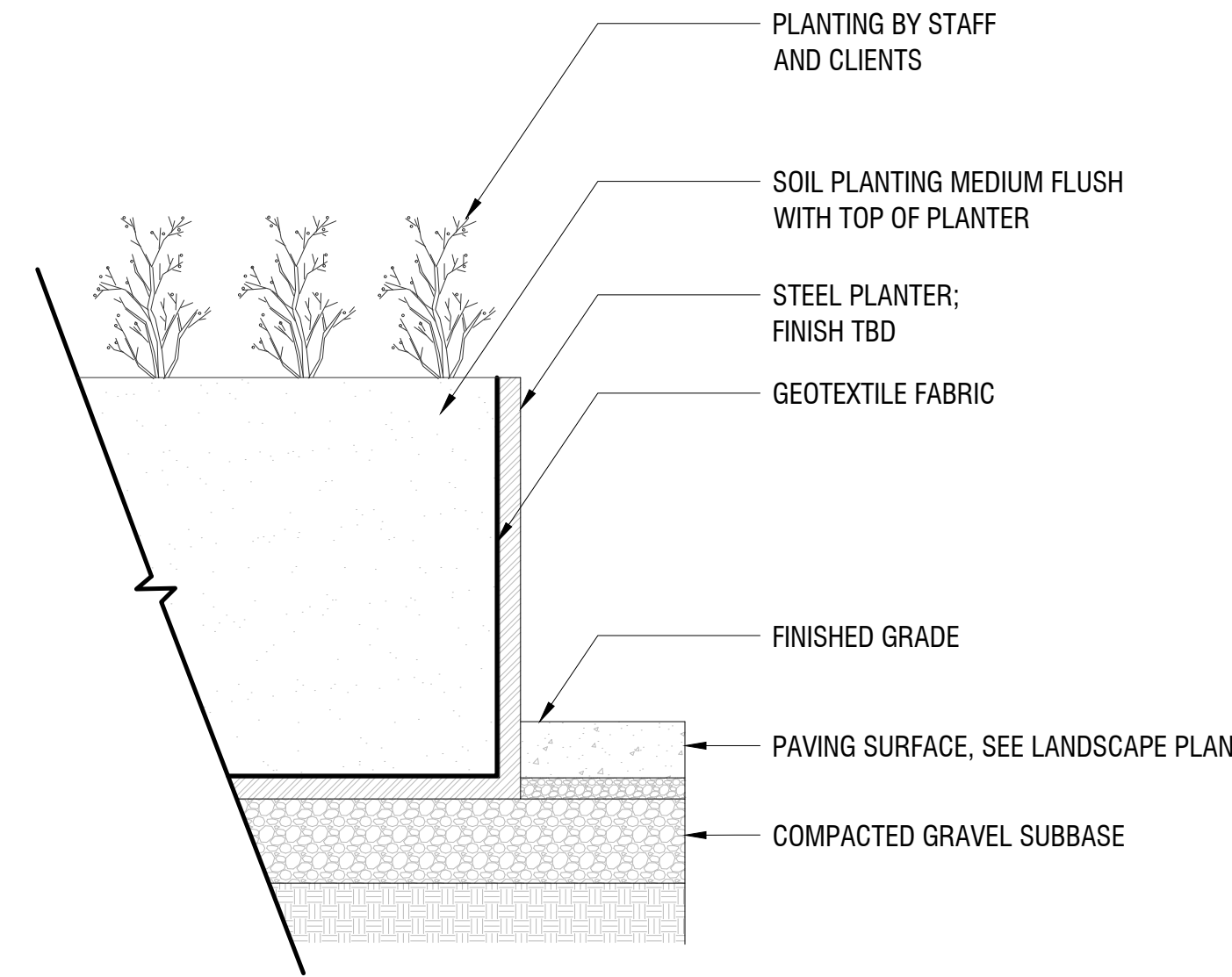
1 CONCRETE PAVERS - PERVIOUS
NTS

1.1



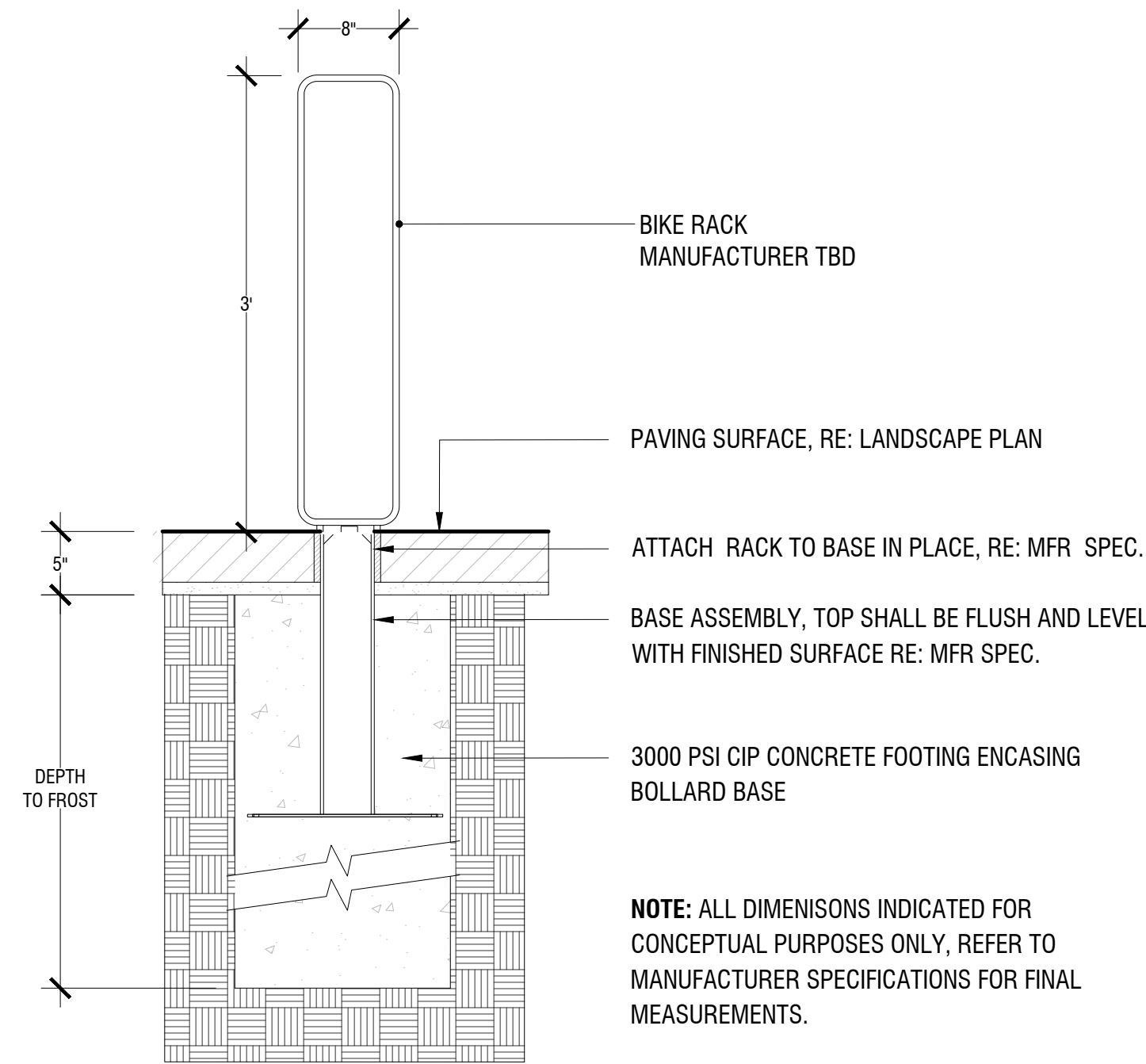
2 GRASS PAVE
3/4" = 1'-0"

1.2

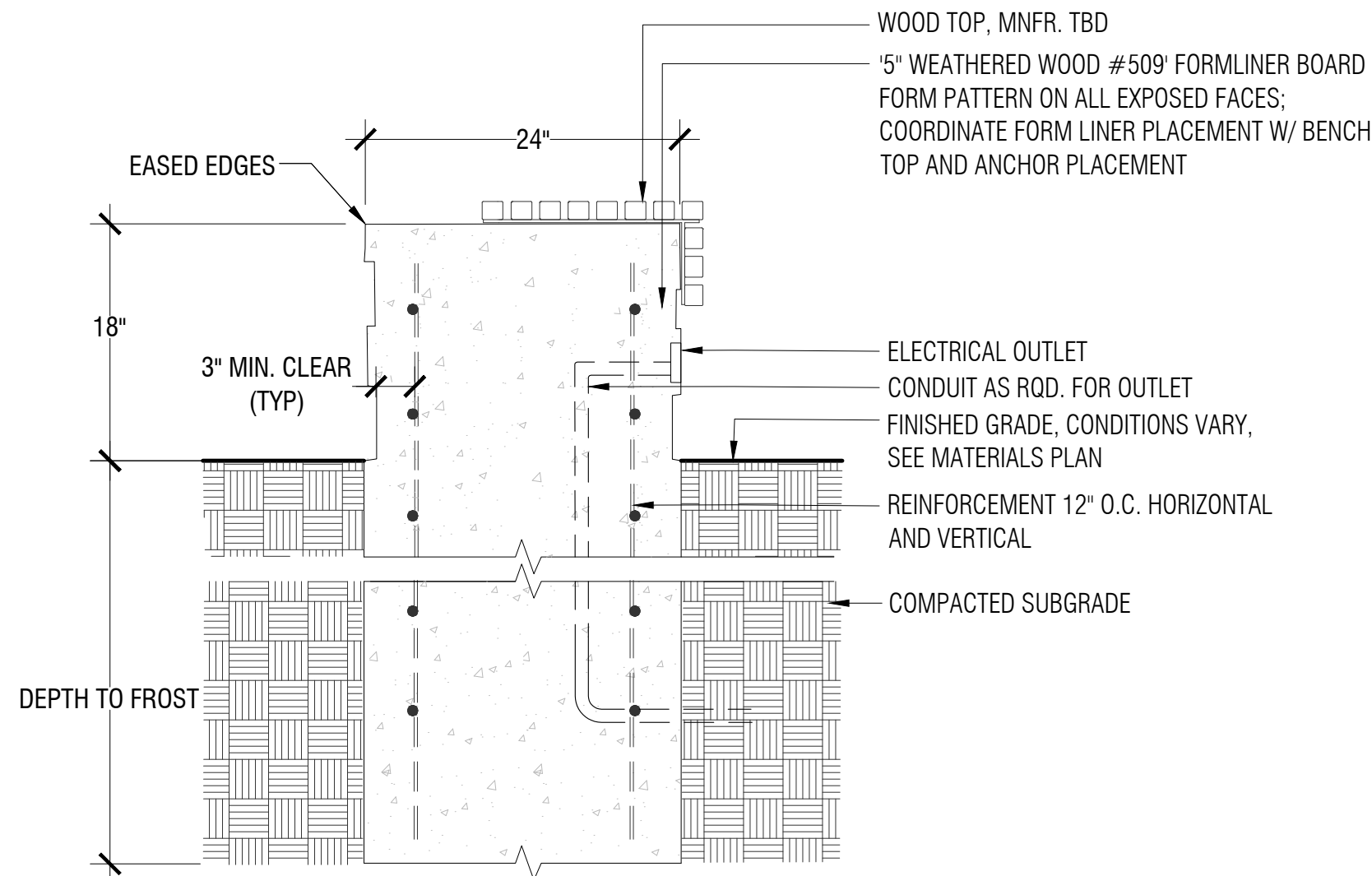


3 RAISED PLANTER
1" = 1'-0"

5.2

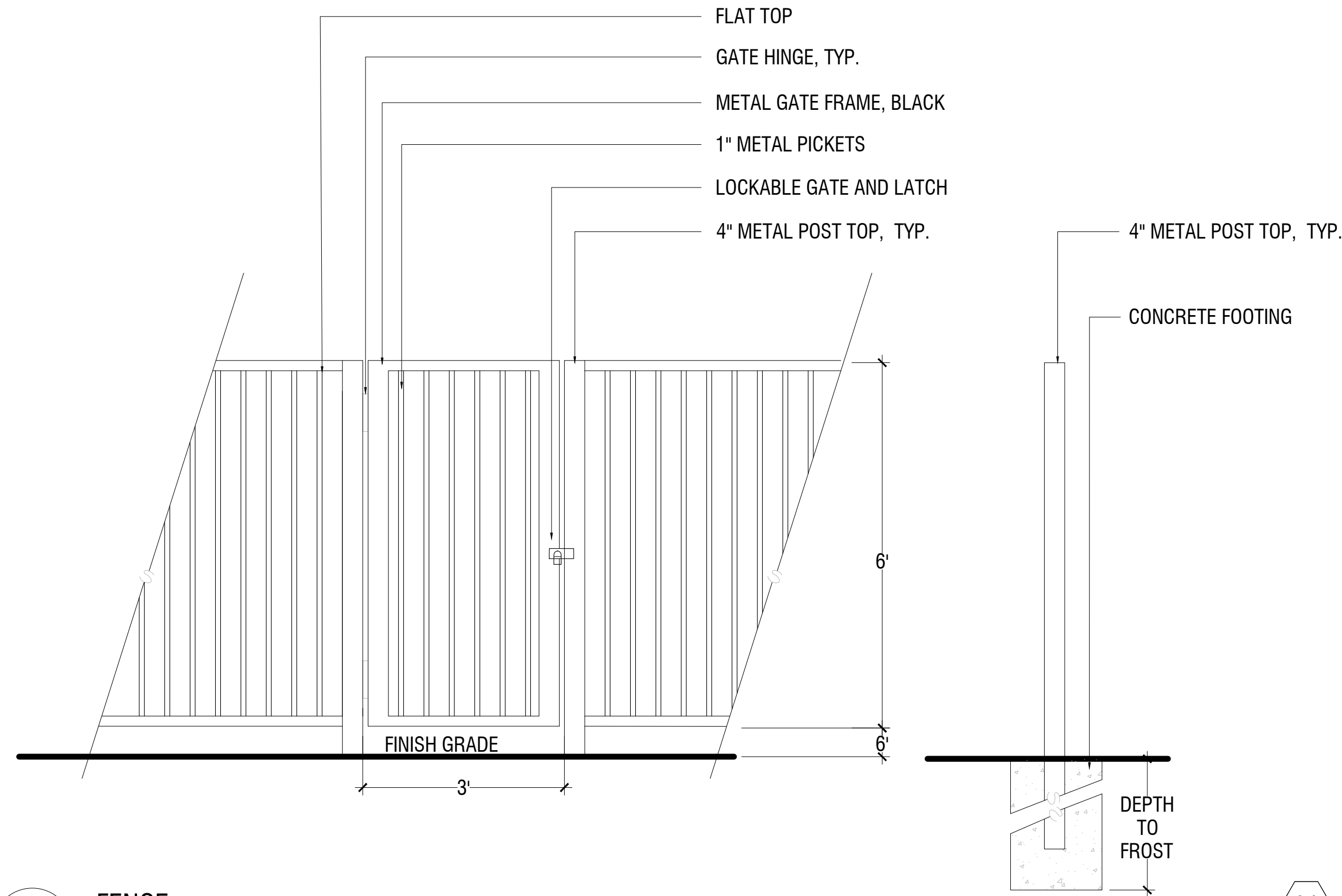


SECTION



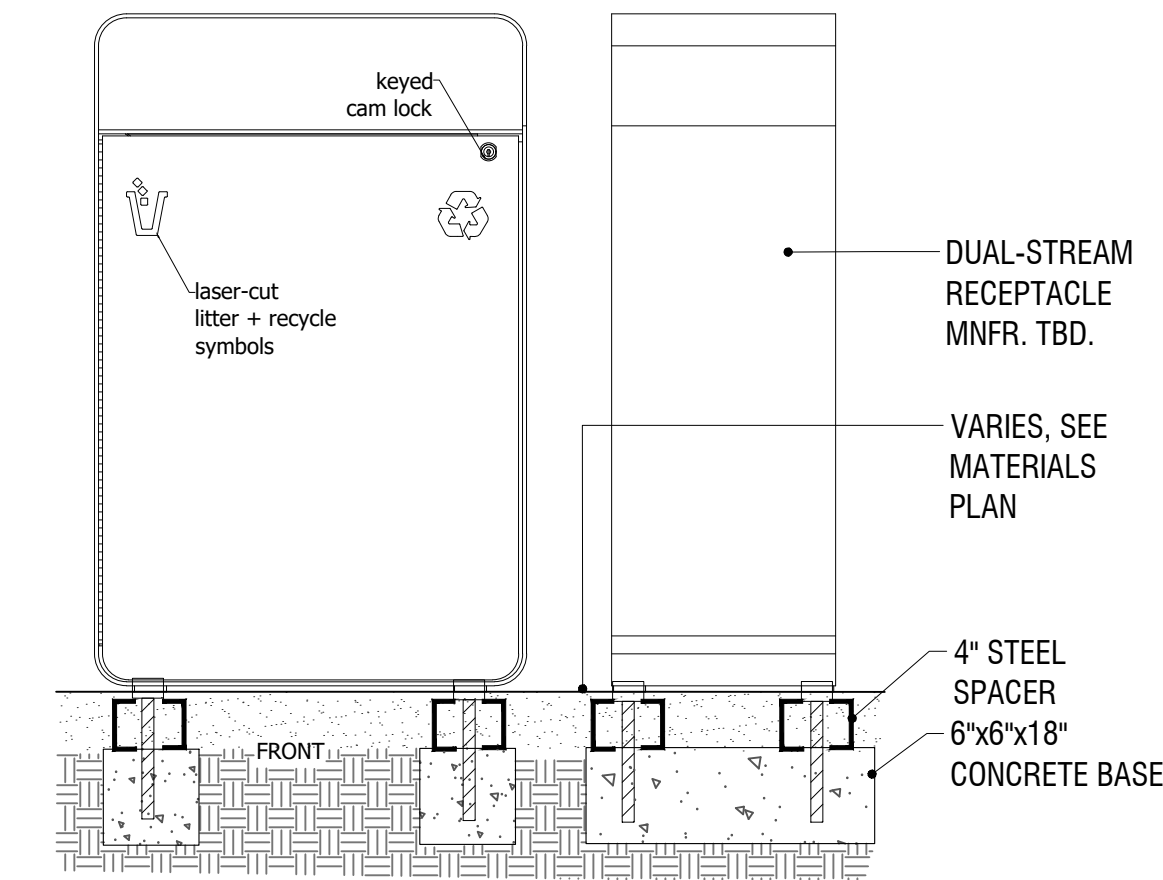
5 SEAT WALL
1" = 1'-0"

5.4



6 FENCE
NTS

6.1

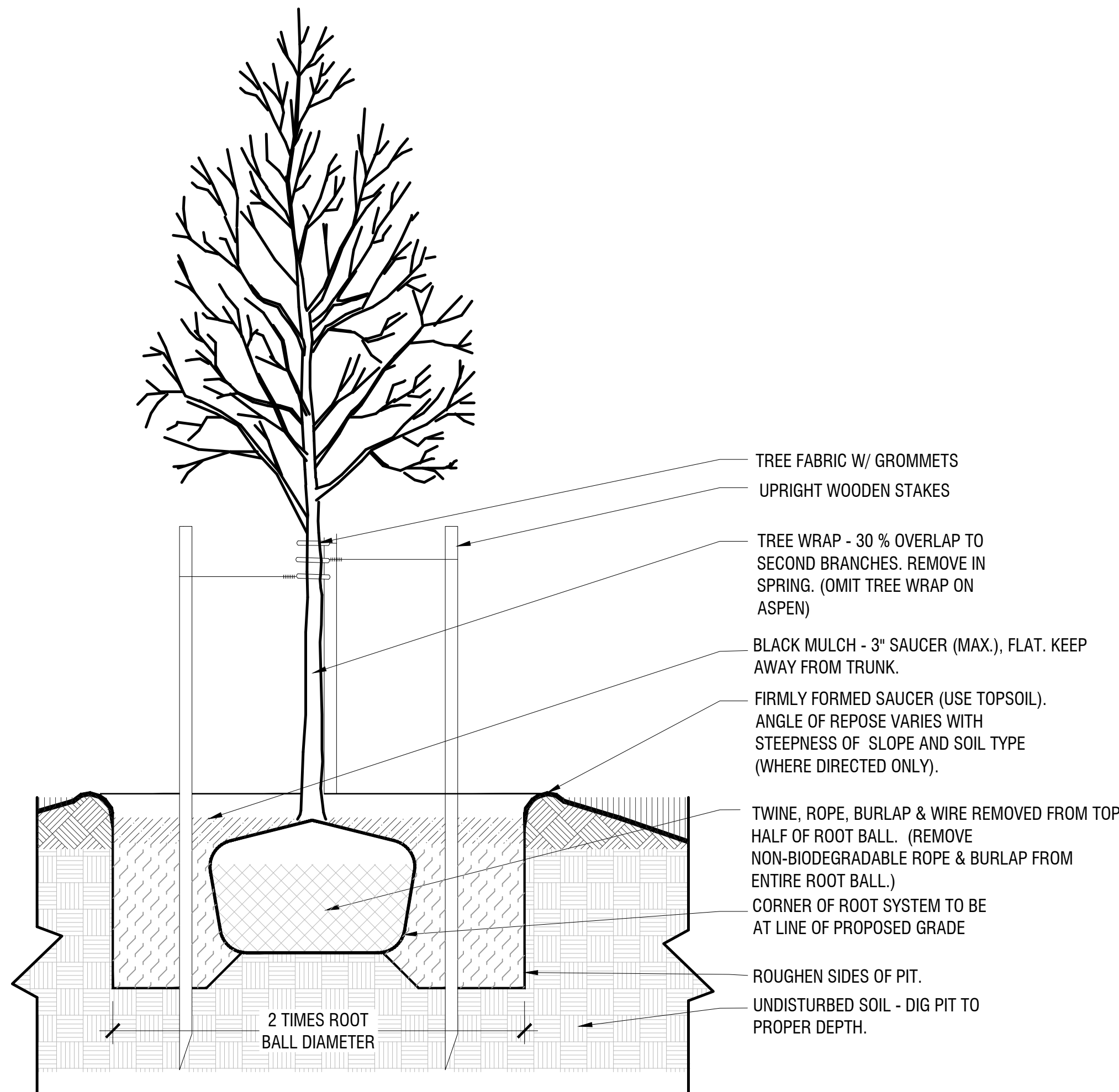


7 TRASH RECEPTACLE
NTS

5.3

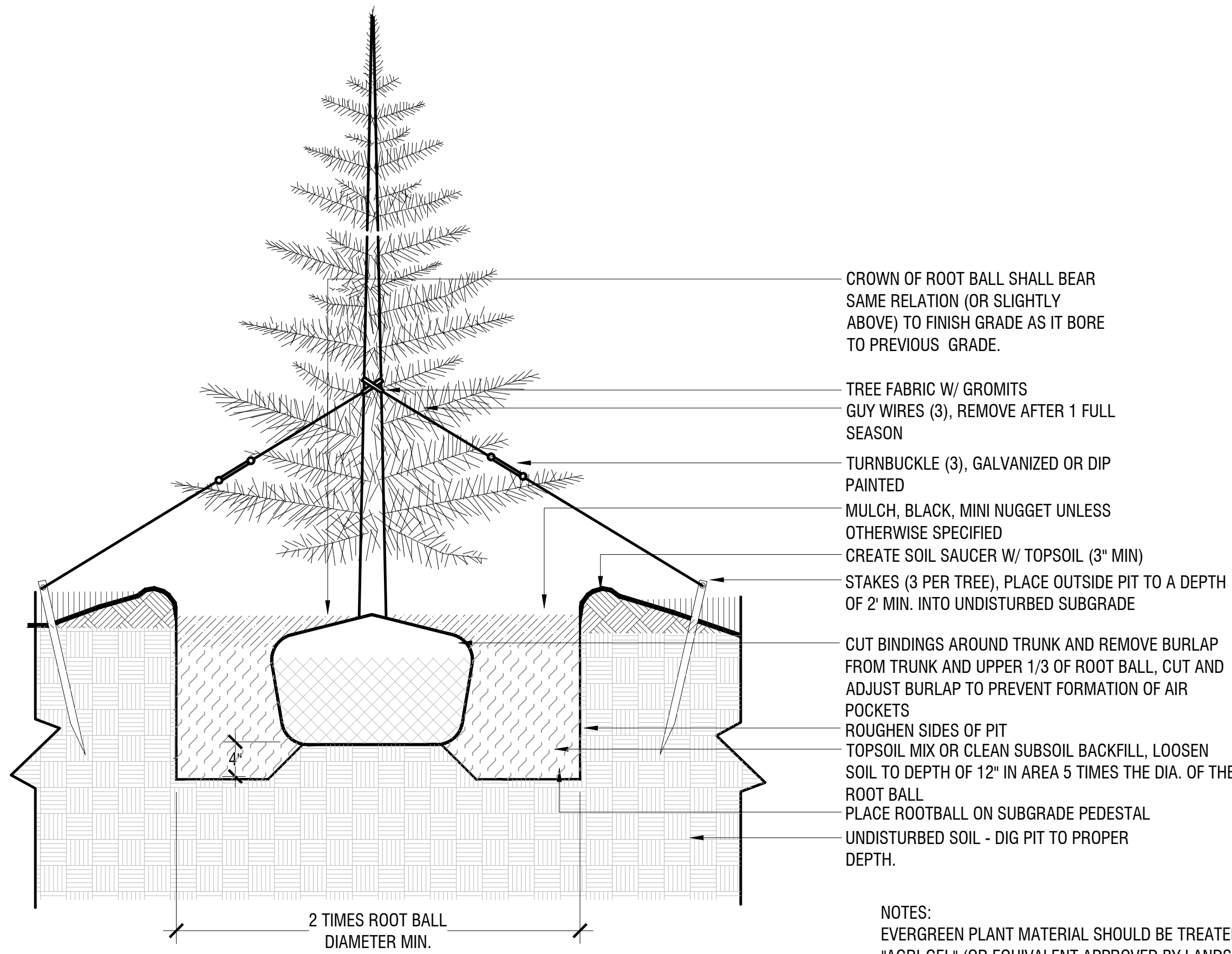
SITE KEYNOTES:

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	7.0	SITE LIGHTING	
2.0	JOINTING		XX	NOT USED AT THIS TIME	X/XX-XX
XX	NOT USED AT THIS TIME	X/XX-XX	8.0	DRAINAGE	
3.0	STEPS		XX	NOT USED AT THIS TIME	X/XX-XX
XX	NOT USED AT THIS TIME	X/XX-XX	9.0	PLANTING AND LANDSCAPE	
4.0	SITE WALLS/ EMBANKMENTS		9.1	DECIDUOUS TREE PLANTING	1/L3-01
XX	NOT USED AT THIS TIME	X/XX-XX	9.2	EVERGREEN TREE PLANTING	2/L3-01
5.0	SITE FURNITURE		9.3	SHRUB PLANTING	3/L3-01
5.1	BICYCLE RACK	4/L3-00	9.4	PERENNIAL PLANTING	4/L3-01
5.2	RAISED PLANTER	3/L3-00	9.5	STEEL EDGING	5/L3-01
5.3	TRASH RECEPTACLE	7/L3-00	9.6	TREE PROTECTION	6/L3-01
5.4	SEAT WALL	5/L3-00	10.0	MISCELLANEOUS ELEMENTS	
			10.1	STAGE	1/L3-02
			10.2	BIKE PAVILION	2/L3-02
			10.3	EXTERIOR STORAGE LOCKERS	3/L3-02



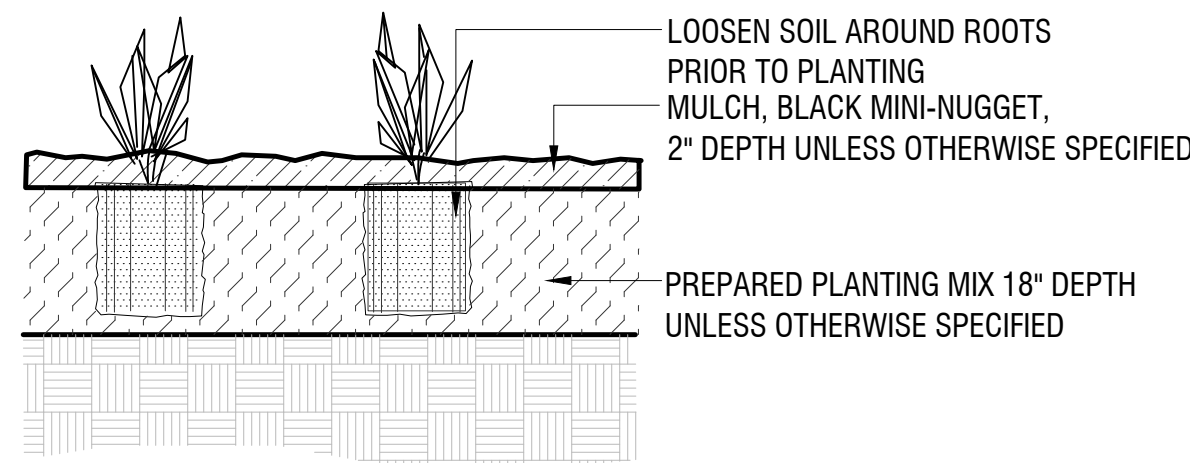
1 DECIDUOUS TREE PLANTING
1":1'-0"

9.1



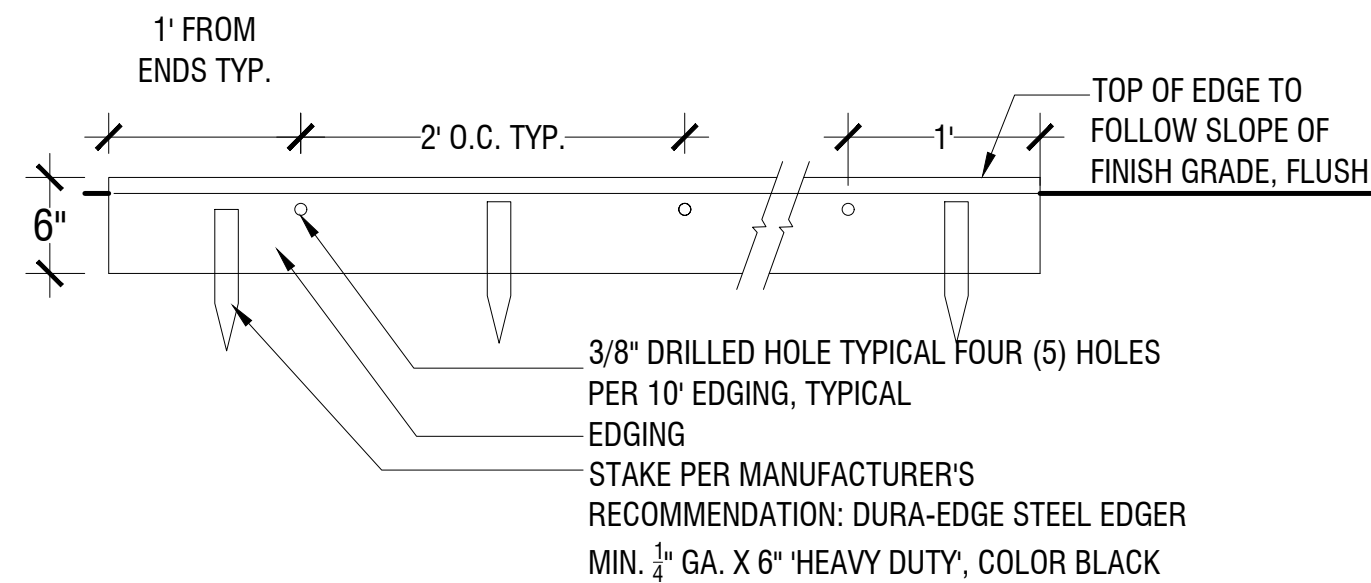
2 EVERGREEN TREE PLANTING
1":1'-0"

9.2



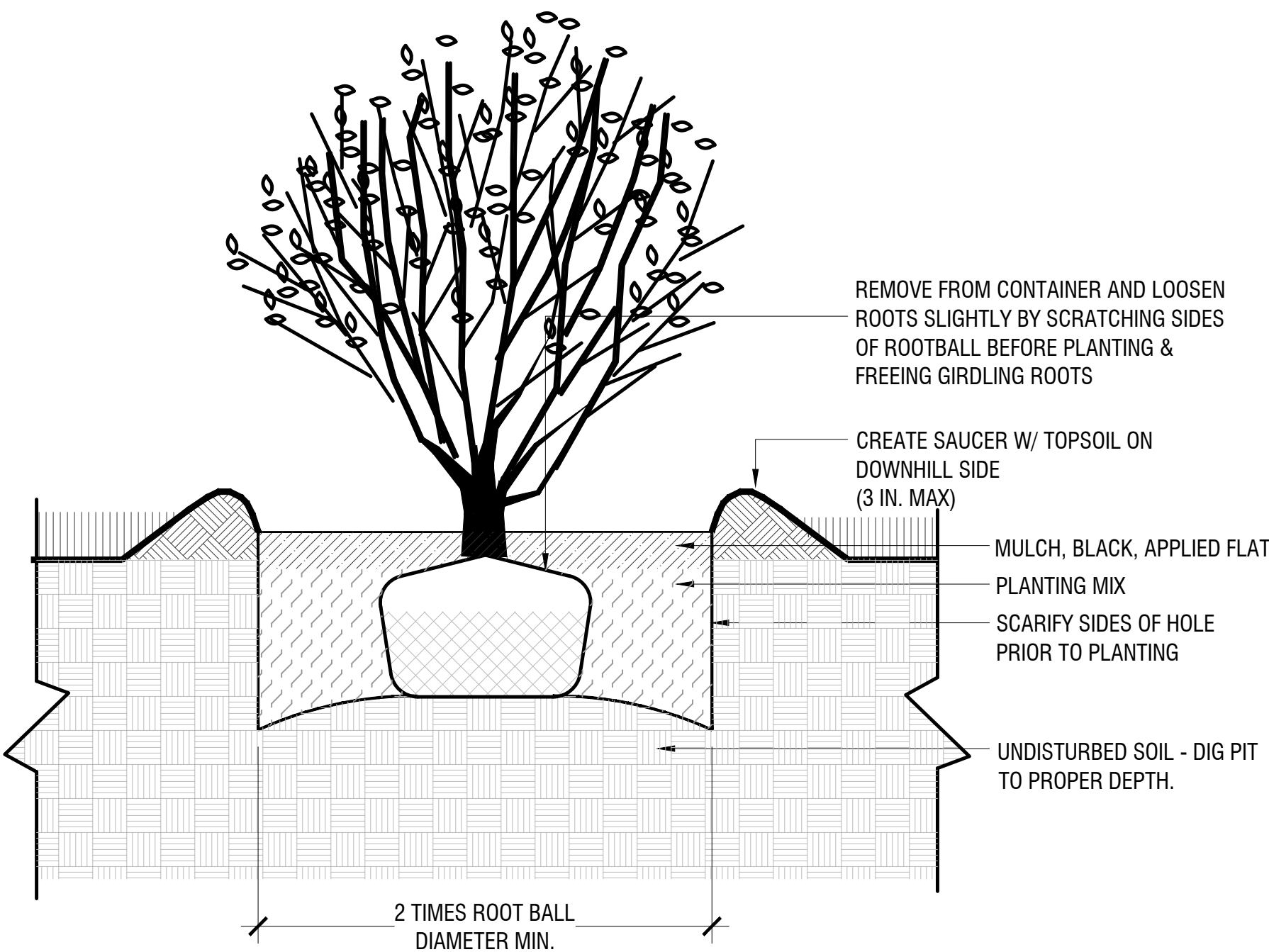
3 PERENNIAL & GROUND COVER PLANTING
1":1'-0"

9.4



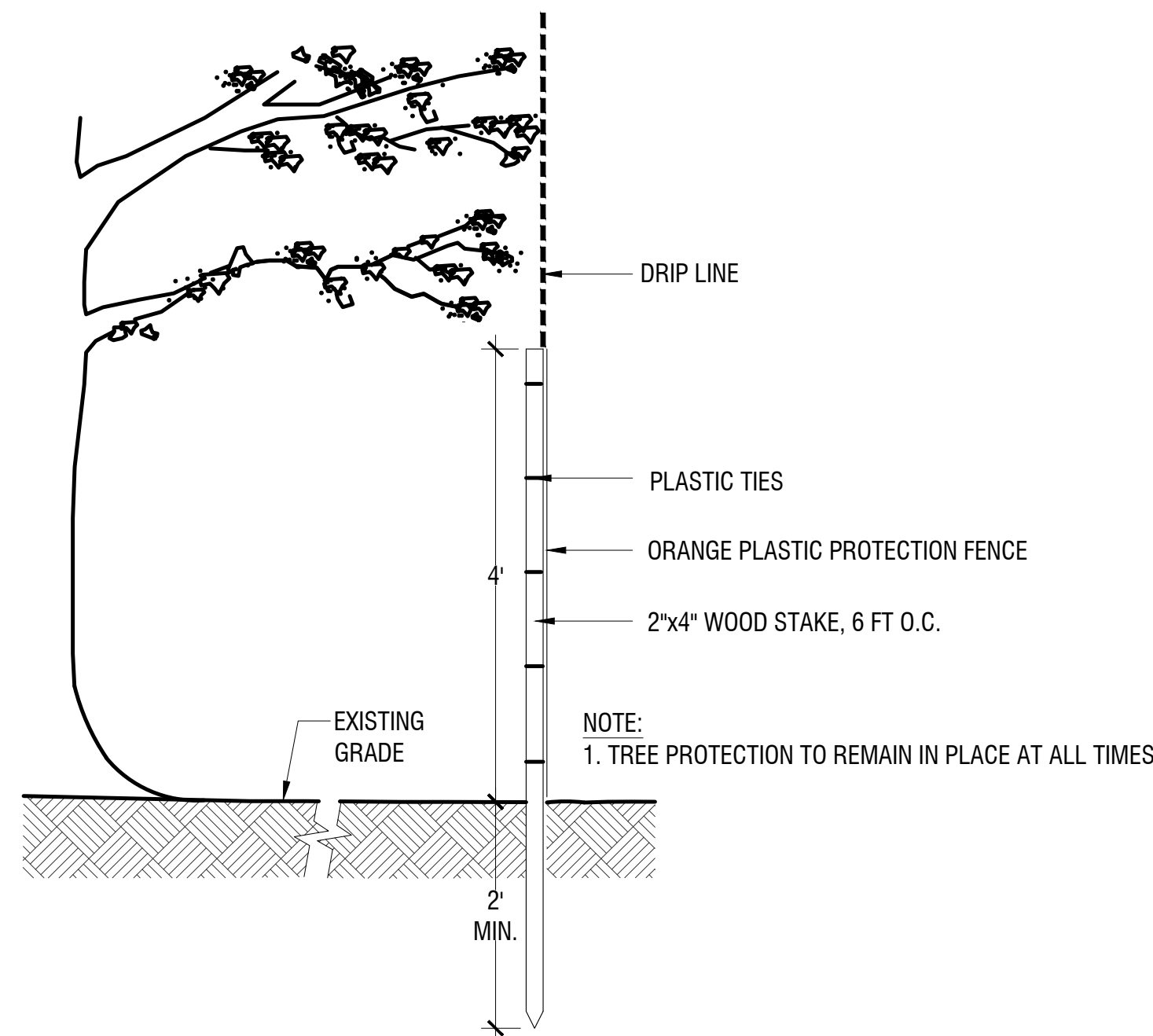
4 STEEL LANDSCAPE BED EDGING
1":1'-0"

9.5



5 SHRUB PLANTING
1":1'-0"

9.3



6 TREE PROTECTION
N.T.S.

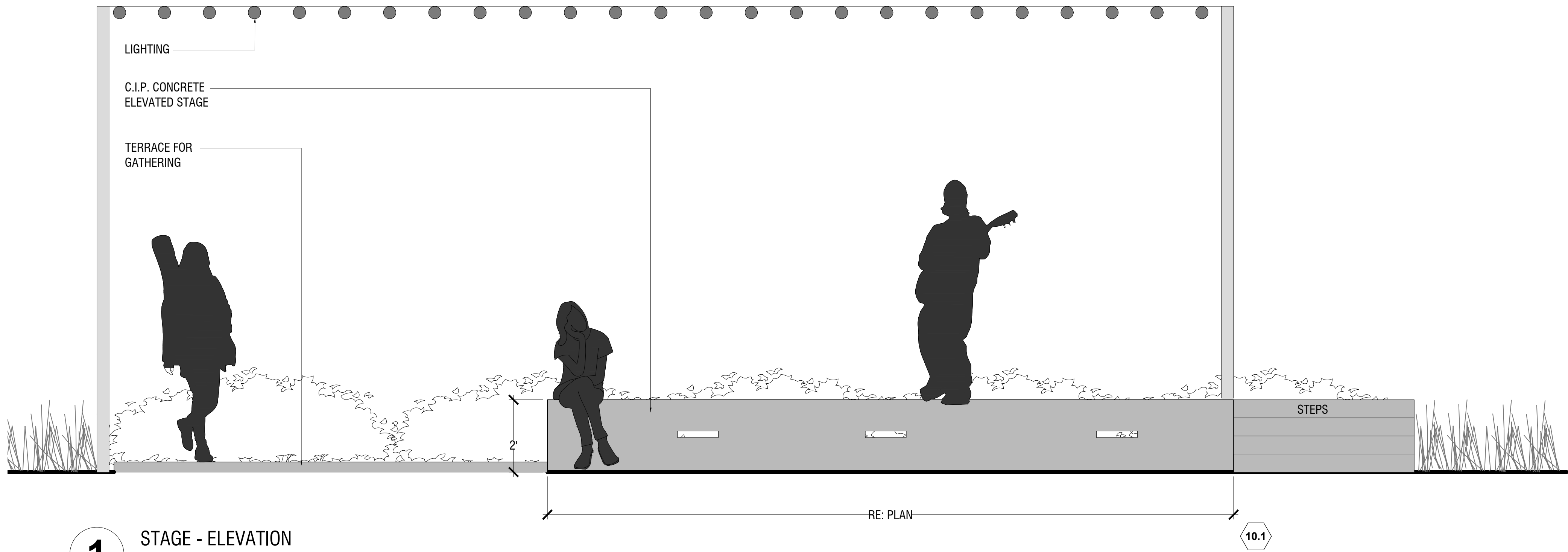
9.6

NOTES:

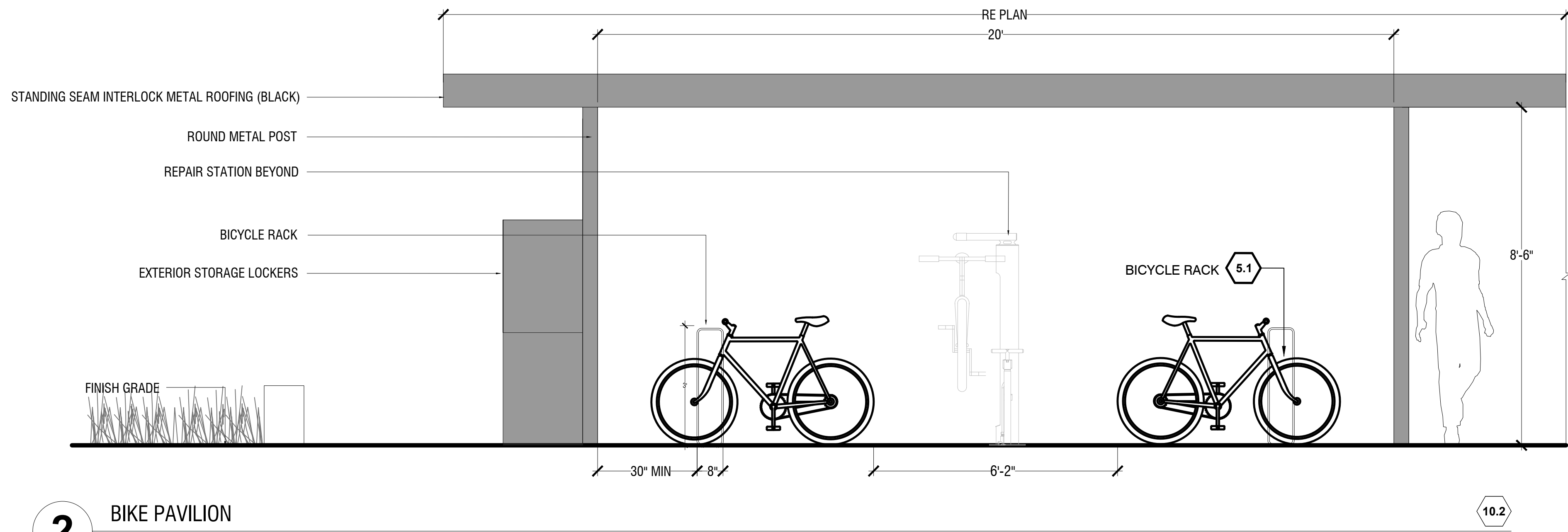
- ALL PLANTING AND SEEDING SHOULD RECEIVE REGULAR WATERING FOR ESTABLISHMENT; ONE YEAR (FOR SEEDING) TWO YEARS MIN. (FOR TREES).
- TREES OUTSIDE OF IRRIGATION ZONES TO BE INSTALLED WITH DRIP IRRIGATION BAGS (BY GEWITT, TREEGATOR, OR APPROVED EQUAL) PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR AND/OR MAINTENANCE SHALL FILL BAGS AS OFTEN AS NECESSARY TO PREVENT FROM BEING EMPTIED.

SITE KEYNOTES:

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	7.0	SITE LIGHTING	
2.0	JOINTING		X.X	NOT USED AT THIS TIME	X/XX-XX
X.X	NOT USED AT THIS TIME	X/XX-XX	8.0	DRAINAGE	
3.0	STEPS		X.X	NOT USED AT THIS TIME	X/XX-XX
X.X	NOT USED AT THIS TIME	X/XX-XX	9.0	PLANTING AND LANDSCAPE	
4.0	SITE WALLS/ EMBANKMENTS		9.1	DECIDUOUS TREE PLANTING	1/L3-01
X.X	NOT USED AT THIS TIME	X/XX-XX	9.2	EVERGREEN TREE PLANTING	2/L3-01
5.0	SITE FURNITURE		9.3	SHRUB PLANTING	3/L3-01
5.1	BICYCLE RACK	4/L3-00	9.4	PERENNIAL PLANTING	4/L3-01
5.2	RAISED PLANTER	3/L3-00	9.5	STEEL EDGING	5/L3-01
5.3	TRASH RECEPTACLE	7/L3-00	9.6	TREE PROTECTION	6/L3-01
5.4	SEAT WALL	5/L3-00	10.0	MISCELLANEOUS ELEMENTS	
			10.1	STAGE	1/L3-02
			10.2	BIKE PAVILION	2/L3-02
			10.3	EXTERIOR STORAGE LOCKERS	3/L3-02



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	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	7.0 SITE LIGHTING		
2.0 JOINTING			X.X NOT USED AT THIS TIME		XXX-XX
X.X NOT USED AT THIS TIME		XXX-XX	8.0 DRAINAGE		
3.0 STEPS			X.X NOT USED AT THIS TIME		XXX-XX
X.X NOT USED AT THIS TIME		XXX-XX	9.0 PLANTING AND LANDSCAPE		
4.0 SITE WALLS/ EMBANKMENTS			9.1 DECIDUOUS TREE PLANTING		1/L3-01
X.X NOT USED AT THIS TIME		XXX-XX	9.2 EVERGREEN TREE PLANTING		2/L3-01
5.0 SITE FURNITURE			9.3 SHRUB PLANTING		3/L3-01
5.1 BICYCLE RACK		4/L3-00	9.4 PERENNIAL PLANTING		4/L3-01
5.2 RAISED PLANTER		3/L3-00	9.5 STEEL EDGING		5/L3-01
5.3 TRASH RECEPTACLE		7/L3-00	9.6 TREE PROTECTION		6/L3-01
5.4 SEAT WALL		5/L3-00	10.0 MISCELLANEOUS ELEMENTS		
			10.1 STAGE		1/L3-02
			10.2 BIKE PAVILION		2/L3-02
			10.3 EXTERIOR STORAGE LOCKERS		3/L3-02

CITY RESUBMISSION	08.12.2021



Memorandum

Planning and Urban Development Department



To: Brandon Mazer, Chair and Members of the Portland Planning Board
From: Shukria Wiar, Planner
Date: August 20, 2021
Re: 477 Congress Street (Time & Temperature Building)
Applicant: T.T. Maine Venture LLC., owner represented by Fathom Companies
Project #: PL-001003-2021 CBL: 037 Fo22001
Meeting Date: August 24, 2021

I. INTRODUCTION

Fathom Companies, on behalf of T.T. Maine Venture LLC, seeks approval of a Level III Site Plan and Inclusionary Zoning Conditional Use application for the property at 477 - 481 Congress Street and 22 Preble Street, known as the Time & Temperature Building. The applicant has requested a preliminary workshop to introduce alterations and additions associated with the adaptive reuse of the commercial building located at the northwest corner of Congress and Preble streets. The development plans call for the conversion of the building into a 186-room hotel that includes meeting and banquet rooms, a restaurant, retail and a rooftop bar.

Figure 1 - Aerial of the Proposed Development



Applicant: T.T. Maine Venture LLC., owner represented by Fathom Companies
Consultants: Darrin Stairs, PE, Woodard and Curran
David Lloyd, Archetype Architects
Scott Hanson, MacRostie Historic Advisors

II. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
No waivers are requested at this time.	
Review	Applicable Standards
Major Site Plan	Section 14.6
Hotel Inclusionary Zoning (IZ)	Section 18.2
Pedestrian Overlay District	

III. PROJECT DATA

Existing Zoning	B-3 Downtown Business
Existing Use	Commercial (Vacant)
Proposed Use	Hotel
Number of Hotel Rooms	186
Parcel Size	78, 680 SF

	Existing	Proposed	Net Change
Building Footprint	31,700 SF	31,700 SF	0
Building Floor Area	202,000 SF	202,00 SF	0
Impervious Surface Area	100%	100%	0
Parking Spaces	0 (vacant building)	56 (at 45 Brown St)	+56
Bicycle Parking Spaces	0	None at this time	

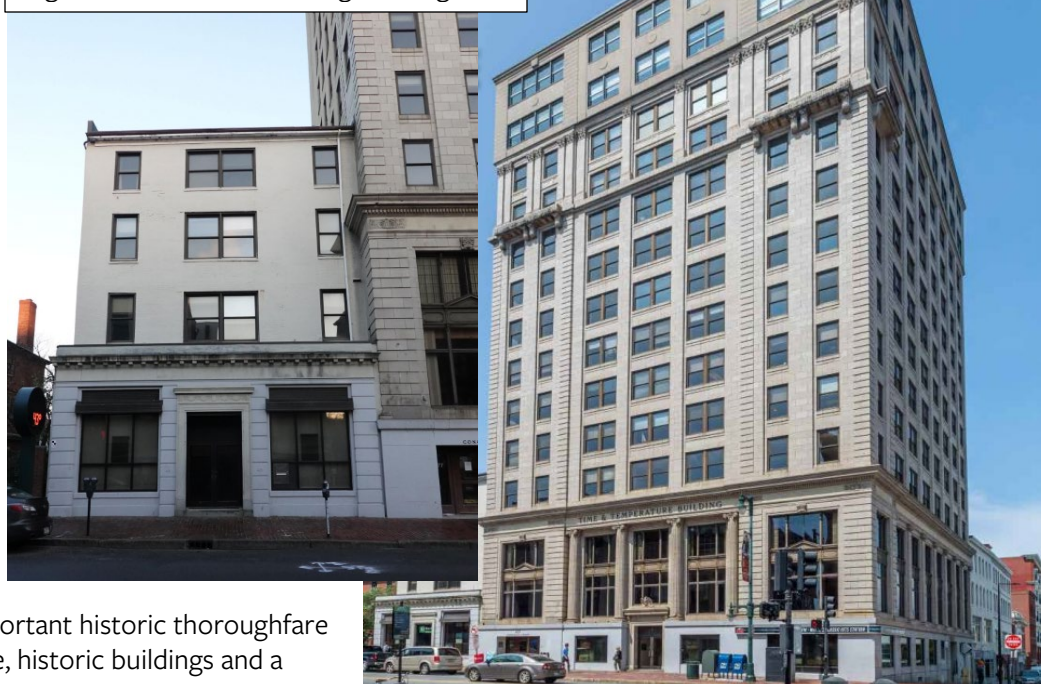
IV. EXISTING CONDITION

The Time and Temperature Building, a fourteen story historic structure, is located in the center of Downtown Portland, proximate to some of the major downtown businesses, art galleries, coffee shops and restaurants. The site comprises three adjacent parcels, which are fully developed.

The building is more appropriately identified as a building complex, as it is composed of four historic structures that were functionally combined and physically connected when the Chapman Building at the corner (the newest of the four structures and the one typically identified as the Time & Temperature building) was constructed in 1924. The four components of the complex include the Chapman Building at 477 Congress Street, the Preble House Building at 481 Congress Street, 10-20 Preble Street, and the former B. F. Keith Theatre at 22 Preble.

The building is located in the B-3 Downtown Business zone. B-3 is a high-density commercial, residential, and mixed-use zone mapped throughout the City's downtown. The site is also located within the Pedestrian Activities District (PAD) and the Congress Street Historic District. The proposed renovations will be reviewed by the Historic Preservation Board for design; the development has had one workshop with the Historic Preservation Board on June 2, 2021. The block includes three existing buildings, two of which are contributing structures facing Congress Street. Congress Street is an important historic thoroughfare in the downtown with larger scale, historic buildings and a high volume of pedestrian traffic.

Figure 2 – Photos of Existing building



Please see [Attachment 6](#) for detailed information about the history of the individual historic resources that comprise the Time & Temperature Building, as well as building descriptions for each. The document also describes the unique retail arcade that was built within the ground floor of the building, a significant portion of which is still

extant.

V. PROPOSED DEVELOPMENT

The proposed development site comprises 78,680 SF. The corner lot has frontage along Congress and Preble streets. The proposed development will include renovations and a change of use for the properties, from multi-use commercial to hotel and multi-use commercial. The new uses will include a 186-room hotel and associated amenity spaces; new retail (approx. 4,700 SF); rooftop bar (approx. 5,100 SF) and restaurant (approx. 2,260 SF). The gross square footage including basements and sub basements is 202,000 SF. 56 parking spaces provided off-site at the garage at 45 Brown Street.

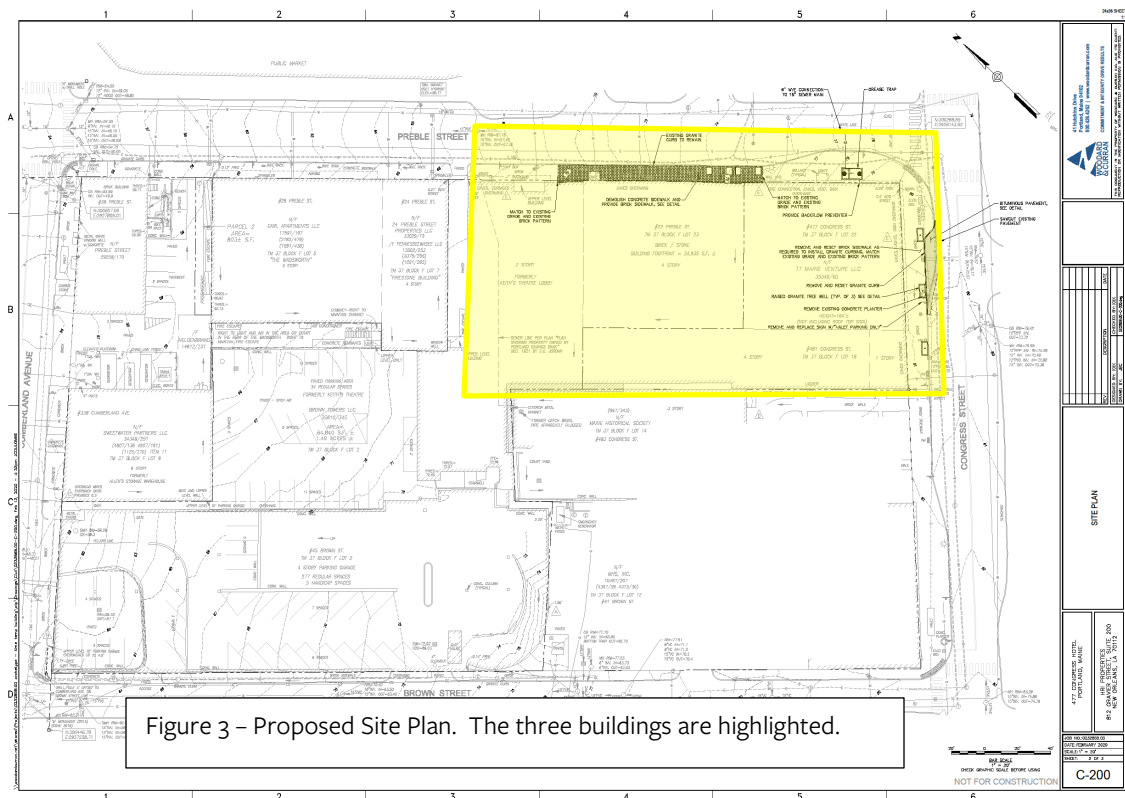


Figure 3 – Proposed Site Plan. The three buildings are highlighted.

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

Notices were sent to 115 residents and the interested citizen list. The notice also appeared in the *Portland Press Herald* on August 12th and 13th, 2021, as well as being posted on the City's web page. E-mail notices were sent at the same time as the mailed notices as well as being posted on the City's web page and on the legal ad. No public comments have been received by the Planning office to date. The applicant held a neighborhood meeting on July 14, 2021, as required as part of this application, where eleven (11) abutters attended (Attachment C). Questions and concerns raised at the meeting were pertaining to signs and lighting effect on the abutting properties, and valet and parking, with its potential impact to the neighboring Maine Historical Society building.

VII. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

a. The owners of the property are TT Maine Venture, LLC and Brown Tower, LLC, both owned by Presidium, by quitclaim deed without covenants recorded at the Cumberland County Registry of Deeds (Book 35346 Page 51 and Book 35610 Page 345). The applicant has provided a copy of the deeds, which demonstrates their right, title and interest in the property.

There is one easement agreement on the project site between 477 Time & Temperature LLC and the Maine Historical Society at 489 Congress Street. This cross easement allows for maintenance repair and renovation of the respective buildings. A copy of the easement is attached. In addition, there are four proposed electrical vaults in the right-of-way on Preble Street. A draft easement will need to be submitted for review.

b. The applicant has submitted a letter from Presidium Group, dated March 21, 2021, as demonstration of their financial and technical capacity to complete the proposed development.

VIII. ZONING ANALYSIS

A. DIMENSIONAL AND USE REQUIREMENTS

A zoning review has been conducted on this application and this project meets dimensional the requirements of the B-3 zone, see below.

	Required	Proposed
Lot Size	none	78,680 SF
Area Per Dwelling Unit	none	n/a
Minimum Street Frontage	15'	121'
Front Yard Minimum	None	0'
Front Yard Maximum	5'	0'
Rear Yard	None	0'
Side Yard	None	0'
Maximum Lot Coverage	100%	81%
Maximum Height	210'	158' – 8"
Open Space	n/a	0
Maximum Impervious Surface	100%	100%
Off-Street Parking	none	56

The proposed use of hotel is also a permitted use within the B-3 Downtown Business zone. Additionally, this application, while initially filed in the winter of 2020 as a Level III Site Plan under the previous Land Use Code, does not have pending proceeding status under the prior Land Use Code and thus is subject to the provisions of the current Land Use Code.

B. CONDITIONAL USE – INCLUSIONARY ZONING

As required by the City's Hotel Inclusionary Zoning Ordinance (18-2.5(D) Low-income housing minimum).

All hotel projects are subject to Section 18.2.5 of the Land Use Code and shall provide one unit of low-income housing for rent in the City of Portland for every 28 rooms in the hotel project, which shall meet the standards outlined in Subsections 18.2.3(C)(3), (4), and (5) and in the implementing regulations governing low income units. This amount shall be rounded up to the nearest increment of 28 rooms. These units shall be deed restricted for the longest period permitted by law, shall not be used for short-term rentals of less than 30 days, and must be provided with distinct entrances from the street to delineate them from the hotel itself.

E. Fee-in-lieu alternative.

As an alternative to providing low-income housing units under Subsection 18.2.5(D) above, a hotel project may pay a fee-in-lieu of \$3,806 per hotel guest room. This amount shall be paid into the City's Housing Trust Fund and used for the purposes set forth in the ordinance and regulations applicable to that trust.

The City's Housing Program Manager, Victoria Volent, has reviewed the application and offers the following comment:

To comply with the Hotel IZ Ordinance, the applicant has indicated they intend to pay the fee-in-lieu of \$707,916,886 (186 X \$3,806) prior to receiving their certificate of occupancy.

IX. DEVELOPMENT REVIEW

SITE PLAN REVIEW STANDARDS (SECTION 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff comments are listed below.

1. Impact on Surrounding Street Systems and Access and Circulation (Section 14.6.1A); Access and Circulation (Section 14.6.1B); Loading and Servicing (Section 14.6.1.B.2)

The proposed development is a corner lot with frontages along Congress Street and Preble Street. Traffic circulation will be on Congress, Brown, Cumberland, and Preble streets. The applicant provided a traffic and parking assessment (Attachment B). Staff reviewed additional trip generation information to confirm that the project will not trigger a Traffic Movement Permit (TMP). The comments provided by Tom Errico, the City's consulting traffic engineer, have been addressed regarding traffic impacts (Attachment 1):

As part of the hotel program, a valet operation, a critical part of the project, is proposed. The applicant is proposing valet operations, as well as loading and on-street parking spaces on Congress Street (two way arterial street) and Preble Street (one-way city street). Congress Street valet operations will consist of arrival only area that is proposed to be 86' right in front of the hotel (two parking spaces, in green in the plan below), as well as five 15-minute loading and unloading zone (in the orange). Preble Street operations will consist of another 86' of departures only (in blue) and two parking spaces for commercial loading and unloading area (in orange). Since the pre-application meeting with the City, different City Departments, including Parking, Fire, Police, Department of Public Services DPW, and Planning have raised concerns about operating any valet services on Congress Street. Staff has stated that there are other options other than Congress Street to make the valet service work for the hotel and are recommending that valet operations occur on Preble Street.

Staff has reviewed this proposed valet operation, as well as the loading/ unloading areas. City staff remain opposed to the proposed valet operations on Congress Street given the traffic and life-safety related concerns voiced repeatedly over the course of the review. Congress Street is a two-way, two-lane arterial and the City's primary east-west route. Congress Street is a primary bus route for METRO service with a bus stop directly across from the site on the east-bound side of Congress Street. Directly across from the site Center Street, a one-way northbound street approaches Congress Street creating a T intersection within approximately 40 feet of the intersection of Congress Street and Preble Street. City staff are advocating for valet operations to be located on Preble Street a secondary street, which is consistent with City guidance to locate valet operations onto secondary streets adjacent to the property at other hotels, including;

- The Press Hotel (Exchange Street opposed to Congress Street)
- The Canopy Hotel (Center Street opposed to Commercial Street)
- The Hyatt Place Old Port (Valet underneath hotel off Fore and Union)

Major Robert Martin of the Portland Police Department, Keith Gautreau Fire Chief, and DPW Senior Engineer Mike Tremblay have reviewed the applicant's proposal. Below are excerpts of each departments' comments and recommendations, full comments can be found in the attachments:

Police Department – Major Robert Martin (Attachment 8)

The Portland Police Department would oppose the proposal to allow Valet Parking on the Congress Street side of 477 Congress Street. That section of Congress Street is heavily travelled with additional side street traffic from both Center Street and Preble Street in the immediate vicinity. The proposed site is also directly across the street from an active bus stop. All of this contributes to a natural pinch point where traffic is often restricted to single lanes and eastbound traffic is often forced into the westbound lanes.

Another concern is the frequent use of Monument Square for events and protests. Access to Monument Square is closed several times each year to accommodate hundreds and sometimes thousands of people. These road closures would include the proposed valet area. For these reasons we believe the use of Congress Street for Valet parking would not be an appropriate or safe option. We would be supportive of the proposed valet option on

Preble St.

Fire Department – Chief Keith Gautreau (Attachment 7)

The applicant had submitted an option of having valet parking operations on Congress Street some time ago and the Fire Department at that time could not support that location from an emergency response and safety concerns. There was discussion of a second option located on Preble Street in which the Fire Department still feels would create some issues but could support that location for valet parking.

Department of Public Works – Senior Engineer Mike Tremblay (Attachment 2)

DPW still has strong concerns about potential blockage of Congress Street by double-parked vehicles. The Applicant has not provided sufficient data to support that the potential of blockages of Congress Street westbound will be eliminated. They provided examples of curbside valet areas in Boston; however, no example provided was comparable to Congress Street (two-lane, two-way roadway with no excess width for thru vehicles in the event of double parking). The potential for blockages on Congress is a critical concern for emergency response, and a significant traffic concern.

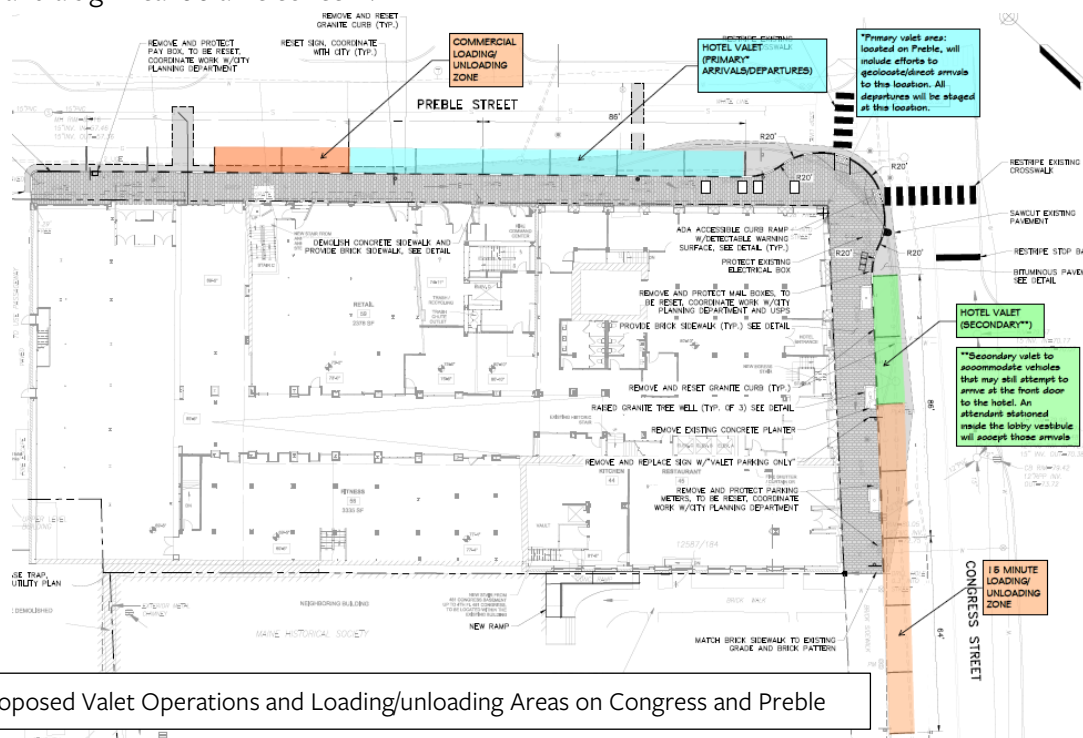


Figure 4 – Proposed Valet Operations and Loading/unloading Areas on Congress and Preble

1. Sanitary Sewer/ Stormwater Disposal

The existing building will be served by the sanitary sewer from Congress Street and Preble Street. The development of the project includes restaurants with kitchens therefore oil/water separators and grease traps are to be provided. The applicant will need to submit a capacity letter from Department of Public Works (DPW) stating that there is sufficient capacity for this. The utility plans have been reviewed by Jodie Keene, Stormwater Coordinator with the following recommendation regarding utilities on site:

- How is rooftop runoff managed? We prefer it to be connected into the sewer separately from the sanitary waste on site in anticipation of future separation.
- It may be helpful to see a demolition plan, which will answer the following questions.
 - Where is/are the existing water line(s) and how will they be capped?
 - Where is/are existing sewer line(s) and how will they be capped?

2. Curb and sidewalks (Section 14.6.1.B.3)

The sidewalks will be rebuilt on Congress and Preble streets. Staff has raised concerns about slope and design of

the sidewalk, which has been communicated to the applicant. The applicant is also proposing to slightly redesign the existing curb extensions at the intersection to allow more queuing for the valet operations on Congress Street. The curb extension is being reviewed by the City staff and final decision will be based on the valet services and circulation.

3. Public Transit Access (Section 14.6.1C)

No transit shelter is required. The project is near several existing bus stops (Routes 1, 2, 3, 8, 9A, 9B, and Husky Line).

4. Vehicle Parking (Section 14.6.1D.1)

Off-street vehicular parking is not required for a change of use in the B-3 zone, but the applicant is proposing to provide fifty-six (56) parking spaces for hotel use in the garage at the 45 Brown Street garage. Per Table 19-A of the Land Use Ordinance, the off-street parking requirement for a 186-room hotel (one parking space per 4 guest rooms) is 49 parking spaces. City staff has requested more information on the number of employees and commercial space. The applicant is also proposing valet operations on both Congress and Preble streets. See section IX.1, above for full review comments.

5. Bicycle Parking (Section 14.6.1D.2)

Bicycle parking is not accounted for as part of the development; the applicant states that since the bicycle parking requirement is based on vehicle parking required, no bike parking is required. Further discussion with City staff, shared bicycle parking will need to be provided on site for short and long-term visitors.

6. Snow Storage (Section 14.6.1D.3)

Currently snow removal is managed by a contracted third party who will continue to manage the removal of the Site's snow to ensure safe pedestrian circulation and to maintain access to the building entrances.

7. Electric Vehicle (EV) Charging Stations (Section 14.6.1D.4)

According to this standard, all development shall adhere to applicable EV standards as provided in Section 1 of the Technical Manual, which states:

New structured and surface parking lots of five or more spaces shall include energized electrical outlets or installed chargers capable of providing Level 2 EV charging or higher to 20% of parking spaces (rounded down to the nearest whole number). Remaining spaces must be served by sufficient conduit, wiring, and electrical service to allow for future installation of electric vehicle supply equipment.

The applicant states that "Because off-street vehicular parking is not required for a change in use in the B-3 zone, and the EV Charging requirement is based on vehicle parking required, no EV Charging is required". Since the applicant is proposing to utilize existing spaces, there is no requirement for the applicant to provide EV charging spaces.

8. Transportation Demand Management (Section 14.6.1E)

All commercial and mixed use developments of 50,000 square feet or more total floor area will need to submit a Transportation Demand Management plan (TDM). The applicant has not submitted one for review but the submittal is pending.

9. Preservation of Significant Natural Features (Section 14.6.2A)

The site is completely developed and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats, or wetland areas. This proposal is not deemed to have an adverse impact on the scenic beauty of the area.

10. Landscape Preservation (Section 14.6.2B)

The Site is completely developed and there is no existing landscaping or existing trees that will be removed.

11. Site Landscaping and Buffers (Section 14.6.2.C)

As part of the landscaping, the applicant is planting three street trees and no other landscaping. Jeff Tarling, City Arborist request that the applicant install raised granite tree wells for the three proposed street trees.

12. Street Tree (Section 14.6.2.C.4)

The applicant is proposing to plant three street trees in raised planters on Congress Street. Section 4.6.3 of the Technical Manual states that street trees for Commercial, industrial and institutional developments shall provide street trees thirty (30) to forty five (45) feet apart on center in the City right of way along all street frontages unless otherwise approved. Jeff Tarling, City Arborist, has reviewed the plans and stated that he would like raised granite trees well at this site that are similar to the one in from of Portland Public Library. He also stated:

- *Off Site trees - Trees are needed across the street, similar to the offsite tree and landscape work that nearby One Monument Square project donated to Monument Square tree replacement and raised granite tree planters, we could use similar trees at Monument Way towards One City Center.*
- *Overall, the current, already constructed streetscape does not present much room in the way of supporting additional trees or landscape. Project contribution to needed trees and the landscape across the street would be a welcomed addition.*

13. Water Quality, Storm Water Management and Erosion Control (Section 14.6.2.D)

The site is completely developed, and the proposed project is a change of use of existing buildings, therefore the stormwater will continue to be managed as it is currently, and no changes to site impervious area are proposed. This project will not create any changes to the quantity, or quality, of the stormwater runoff from the site. The project is not located within the watershed of an Urban Impaired Stream and is not anticipated to pose a risk of groundwater contamination during or after construction. The development has also been designed to provide for the adequate and sanitary disposal of sewage. Erosion Control Measures proposed during construction will include catch basin inlet protection where necessary.

No unreasonable soil erosion or reduction in the capacity of the land to hold water is anticipated, given the site is developed. The Utility Plan (Plan 3) and Grading & Drainage Plan (Plan 4) include measures designed to stabilize the site during and after construction.

14. Consistency with City Master Plans (Section 14.6.3.A)

The proposed development is consistent with *Portland's Plan 2030*. The project is in accordance with the stated goals around authenticity (preserving the historic building), and further supports goals around stabilizing and enhancing historic areas and ensuring quality investment in existing structures. In addition, any future redevelopment and investment into these properties will further support the City's desire of creating complete neighborhoods and reinforcing the center as the subject properties are located within a central, downtown location near transit and walkable services. In addition, the project supports A Vibrant City, the City's Economic Policy guide by furthering goals such as creating economic prosperity by growing Portland's tax and employment base, and by respecting the City's unique quality of place as key to the City's current and future economic success.

15. Public Safety and Fire Prevention (Section 14.6.3.B) (CPTED and Fire)

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime. The building is built to the property line, therefore the street lighting provides visibility and a sense of activity at night. The lighting and photometrics plans have not been submitted for review. Any proposed lighting fixtures will need to meet the Technical Manual standards.

16. Availability and Adequate Capacity of Public Utilities (Section 14.6.3.D)

The development will be served by a six-inch fire protection water line from Congress Street. The site will also be served by a four-inch domestic line provided from Congress Street. The sanitary sewer will be served through an existing lateral in Congress Street and Preble Street. The development of the project includes restaurants with kitchens therefore oil/water separators and grease traps are to be provided. The applicant will need to submit a capacity letter from Department of Public Works (DPW) stating that there is sufficient capacity for this. The utility plans have been reviewed by Jodie Keene, Stormwater Coordinator with the following recommendation regarding utilities on site:

- *The utility plan shows 3 water lines, which I'm sure is just a drafting error. But this should be corrected.*

The applicant has yet to provide the capacity to serve letter from the Department of Public Works. This will be required as a condition of approval. Electrical services are already underground in this area.

17. Massing, Ventilation and Wind Impact (Section 14.6.4.A)

The building is existing. The project is in an urban infill site with no residential properties immediately adjacent.

18. Shadows (Section 14.6.4.B)

The proposed project is an adaptive reuse of existing building. The project is located within the B-3 zone, and is exempt from the shadow standards as stated in Section 14.6.4.B.

19. Snow and Ice Loading (Section 14.6.4.C)

No anticipated concerns.

20. View Corridors (Section 14.6.4.D)

The developed site is not in any of the established view corridors.

21. Historic Resources (Section 14.6.4.E)

The project is within the Congress Street Historic District and is subject to Historic Preservation Certificate of Appropriateness. The applicant has had its first workshop with the Historic Preservation Board on June 2, 2021.

22. Exterior Lighting (Section 14.6.4.F)

A lighting and photometric plan shall be submitted for review and approval.

23. Noise and Vibration (Section 14.6.4.G)

HVAC will be located on the roof with a screened penthouse. The project is not directly abutting residential properties.

24. Signage and Wayfinding (Section 14.6.4.H)

Signage was not proposed or reviewed as part of this application.

25. Zoning Related Design Standards (Section 14.6.4.I)

The site is located within the Congress Street Historic District; therefore, the Historic Preservation Board is conducting design review. The Historic Preservation Board held an initial workshop on the development on June 2, 2021. The project was also reviewed against the B-3 Pedestrian Activities District (PAD) standards. Staff had concerns with window transparency along the Congress Street façade, see Attachment 4 for details.

X. NEXT STEPS

The Planning Board is asked to consider the following:

- Valet Operation on Preble Street vs on Congress Street

- Loading Area design – on or off-street
- Sidewalk design – curb extension,

Applicant to provide the following:

- Transportation and Parking
 - Provide evidence of off-street loading operations (clearance, turning templates)
 - Provide information/ documentation regarding parking demand and calculations
- Site Design
 - Sidewalk design and slope
 - Utilities connections – sewer and stormwater
- Site Plan
 - Transportation Demand Management – to be submitted
 - Lighting and Photometric Plan- to be submitted
 - Correct any inconsistencies between drawings
- Right, Title, and Interest
 - Easements for utilities vaults in ROW

XIII. ATTACHMENTS

ATTACHMENTS TO MEMORANTUM

1. Traffic Review, Tom Errico dated 07.21.2021
2. DPW, Mike Trembley dated 07.21.2021
3. DPW – Water Resources, Jodie Keene dated 07.21.2021
4. Urban Designer, Caitlin Cameron dated 07.07.2021
5. Housing Planner, Victoria Violent dated 07.17.2021
6. City Arborist, Jeff Tarling dated 07.22.2021
7. Fire Department Chief, Keith Gautreau
8. Police Department Captain

APPLICANT'S SUBMITTALS

- A. 2021.08.13 Notice of Public Meeting Certification
- B. 2021.08.02 Response to City Comments
- C. 2021.07.15 Neighborhood Meeting Certification
- D. 2020.02.05 Level III Time Temperature Building Cover Letter
- E. 2021.04 Cover Letter (Project Summary)
- F. 2021.07.16 Response to City Comments
- G. Section 0 - Table of Contents
- H. Section 1 - Application Checklist
- I. Section 2 - Application Fees
- J. Section 3 - Project Summary
- K. Section 4 - Waiver Requests
- L. Section 5 - Evidence of Right, Title and Interest
- M. Section 6 - Easements and Other Burdens
- N. Section 7 - Evidence of State and or Federal Approvals
- O. Section 8 - Evidence of Financial and Technical Capability
- P. Section 9 - Consistency with Portland Design Standards
- Q. Section 10 - Zoning Assessment
- R. Section 11 - Site Plan Standards Assessment
- S. Section 12 – Attachment Traffic Memorandum
- T. Section 13 - Site Plan Review Standards
- U. Section 14 - Boundary Survey
- V. Section 15 - Construction Management Plan
- W. Section 16 - Availability and Adequacy of Public Utilities
- X. Section 17 - Availability and Adequacy of Public Utilities

Y. Response Cover Letter to Staff Comments

PLANS

Plan 1.	Cover Page
Plan 2.	General Notes
Plan 3.	Overall Site Plan
Plan 4.	Grading & Drainage Plan
Plan 5.	Utility Plan
Plan 6.	Civil Details
Plan 7.	Civil Details
Plan 8.	Civil Details
Plan 9.	2019-348 BROWN STREET LLC 1-9-2020 Demolition, Construction Management
Plan 10.	A1.00 Basement Plan
Plan 11.	A1.01 - First Floor Plan
Plan 12.	A1.01 First Floor Plan
Plan 13.	A1.03 Third Floor Plan
Plan 14.	A1.04 Fourth Floor Plan
Plan 15.	A1.05 Floors 5-13 Plan
Plan 16.	A1.14 14th Floor Plan
Plan 17.	A1.15 Roof Top Bar Plan
Plan 18.	A1.16 Roof Plan
Plan 19.	A4.00 Exterior Elevations
Plan 20.	A4.01 Exterior Elevations
Plan 21.	A4.02 Exterior Elevations
Plan 22.	A4.03 Exterior Elevations
Plan 23.	A4.04 Exterior Elevations
Plan 24.	A4.21 - Congress St. Elevation
Plan 25.	A4.22 - Preble St. Elevation
Plan 26.	A4.23 - North Elevation
Plan 27.	A4.24 - West Elevation



Shukria Wiar <shukriaw@portlandmaine.gov>

477 Congress Street - Status Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Wed, Aug 18, 2021 at 3:16 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Hi Shukria - I have reviewed responses and information provided by the applicant and a status update of my June 21, 2021 comments are provided below.

* Detailed traffic count data from 2018 and 2019 used in the traffic analysis shall be provided for review and approval.
 Status: The actual 2018 traffic count sheets shall be provided. As discussed at our July 14, 2021 meeting, StreetLight data should be used to compare 2018 data to current conditions.
 Status: The applicant has provided the 2018 traffic count sheets. The purpose of the StreetLight data is to understand current traffic conditions (vehicle delay and queues) and how the 2018 volumes used in the analysis compares to 2021 conditions. The applicant should provide an opinion regarding 2018 volumes as compared to 2021 volumes.

* The trip generation estimate from the prior retail use assumed it generated 191 PM peak hour trips. This estimate seems high, and the applicant should consider other methods for estimating traffic to a retail use in the downtown area.
 Status: The purpose of estimating trips from the site both historically and for the proposed project is to determine the need for a Traffic Movement Permit. While it does not appear a TMP will be required given credit for prior trips, documentation is necessary. Accordingly, the applicant shall revisit this item for the purposes of estimating traffic from the prior use. All backup calculations for trip generation estimates shall be provided.
 Status: The applicant has revised the trip generation estimate and I find the methods used to be reasonable. The project is expected to have no change in AM peak hour traffic as compared to the prior use. During the PM peak hour, the project is estimated to generate less traffic as compared to the prior use. Accordingly, a Traffic Movement Permit is not required.

* The applicant did not include any trips to the 5,100SF Roof Top Bar area of the project and I would request that further information be provided on this assumption.
 Status: I don't support the applicant's assumption that given the use of a High Turnover Restaurant the trip generation estimate is conservative and thus accounts for any activity at the Roof Top Bar. The restaurant is estimated to generate 35 AM peak hour and 34 PM peak hour trips which does not seem to be overly conservative. The applicant should estimate traffic separately for the Roof Top Bar.
 Status: The applicant has included an estimate for the Roof Top Bar, and I find the estimate to be reasonable. I have no further comment.

* The traffic study should provide trip assignment information for hotel and retail/restaurant land uses separately. It should also provide assumptions for parking locations (valet and self-park scenarios).
 Status: Graphics shall be provided for both entering and exiting movements to valet and parking source locations.
 Status: The graphics have been provided and I have no further comment.

* A safety analysis of the High Crash Locations (HCL) noted in the report shall be performed.
 Status: The applicant has conducted the requested analysis and I concur that the High Crash Locations do not have patterns and/or contributing factors that can be mitigated. Most crashes involved parked vehicles, which highlights the nature of an active urban setting. I have no further comment.

* The Traffic Operations Analysis indicates Congress Street currently operates with little delay and queuing. The applicant should calibrate the Synchro Model to reflect actual field conditions.
 Status: The applicant indicates that a field observation was performed. Details of the observation shall be provided to determine its acceptability. Additional field studies may be requested. The applicant shall also provide the Synchro files for review and approval.
 Status: The applicant has conducted a calibration of the Synchro model according to field data. The model files shall be provided for review. Additionally, I will be conducting an independent field assessment of the study area in the near future to confirm model calibration and overall traffic mobility impacts within the Congress/Brown/Cumberland/Preble block area.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
[T.Y. Lin International]
12 Northbrook Drive
Falmouth, ME 04105
+1.207.781.4721 main
+1.207.347.4354 direct
+1.207.400.0719 mobile

thomas.errico@tylin.com<mailto:thomas.errico@tylin.com>

Visit us online at www.tylin.com<http://www.tylin.com>

Twitter<https://twitter.com/TYLI_Group> | Facebook<<https://www.facebook.com/pages/TY-Lin-International/334954505367>> | LinkedIn<<http://www.linkedin.com/company/27343>> | Instagram<<https://www.instagram.com/tylininternational/>>





Shukria Wiar <shukriaw@portlandmaine.gov>

477 Congress Street - Status Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Wed, Jul 21, 2021 at 10:31 AM

To: "Shukria Wiar (SHUKRIAW@portlandmaine.gov)" <shukriaw@portlandmaine.gov>

Cc: Mike Tremblay <mtremblay@portlandmaine.gov>

Hi Shukria - I have reviewed responses and information provided by the applicant and a status update of my June 9, 2021 comments are provided below.

* Detailed traffic count data from 2018 and 2019 used in the traffic analysis shall be provided for review and approval. Status: The actual 2018 traffic count sheets shall be provided. As discussed at our July 14, 2021 meeting, StreetLight data should be used to compare 2018 data to current conditions.

* The trip generation estimate from the prior retail use assumed it generated 191 PM peak hour trips. This estimate seems high, and the applicant should consider other methods for estimating traffic to a retail use in the downtown area. Status: The purpose of estimating trips from the site both historically and for the proposed project is to determine the need for a Traffic Movement Permit. While it does not appear a TMP will be required given credit for prior trips, documentation is necessary. Accordingly, the applicant shall revisit this item for the purposes of estimating traffic from the prior use. All backup calculations for trip generation estimates shall be provided.

* The applicant did not include any trips to the 5,100SF Roof Top Bar area of the project and I would request that further information be provided on this assumption. Status: I don't support the applicant's assumption that given the use of a High Turnover Restaurant the trip generation estimate is conservative and thus accounts for any activity at the Roof Top Bar. The restaurant is estimated to generate 35 AM peak hour and 34 PM peak hour trips which does not seem to be overly conservative. The applicant should estimate traffic separately for the Roof Top Bar.

* The traffic study should provide trip assignment information for hotel and retail/restaurant land uses separately. It should also provide assumptions for parking locations (valet and self-park scenarios). Status: Graphics shall be provided for both entering and exiting movements to valet and parking source locations.

* A safety analysis of the High Crash Locations (HCL) noted in the report shall be performed. Status: The applicant has conducted the requested analysis and I concur that the High Crash Locations do not have patterns and/or contributing factors that can be mitigated. Most crashes involved parked vehicles, which highlights the nature of an active urban setting. I have no further comment.

* The Traffic Operations Analysis indicates Congress Street currently operates with little delay and queuing. The applicant should calibrate the Synchro Model to reflect actual field conditions. Status: The applicant indicates that a field observation was performed. Details of the observation shall be provided to determine its acceptability. Additional field studies may be requested. The applicant shall also provide the Synchro files for review and approval.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
[T.Y. Lin International]
12 Northbrook Drive
Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

thomas.errico@tylin.com<<mailto:thomas.errico@tylin.com>>

Visit us online at www.tylin.com<<http://www.tylin.com>>

Twitter<https://twitter.com/TYLI_Group> | Facebook<<https://www.facebook.com/pages/TY-Lin-International/334954505367>> | LinkedIn<<http://www.linkedin.com/company/27343>> | Instagram<<https://www.instagram.com/tylininternational/>>

TYLININTERNATIONAL **image001.gif**
2K



Shukria Wiar <shukriaw@portlandmaine.gov>

477 Congress - Time and Temp - Valet Operations on Congress Street

Mike Tremblay <mtremblay@portlandmaine.gov>

Wed, Jul 21, 2021 at 10:13 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, James Rather <jrather@portlandmaine.gov>, John Peverada <jbp@portlandmaine.gov>, Kevin Kraft <kkraft@portlandmaine.gov>
Cc: Keith Gray <kgray@portlandmaine.gov>

Shukria,

After our call last Wednesday with the Applicant and after review of the materials provided by the Applicant on Friday 7/16/2021 about the proposed valet parking associated with the proposed hotel at 477 Congress Street, DPW remains opposed to the proposed valet parking area on Congress Street.

- DPW still has strong concerns about potential blockage of Congress Street by double-parked vehicles. The Applicant has not provided sufficient data to support that the potential of blockages of Congress Street westbound will be eliminated. They provided examples of curbside valet areas in Boston; however, no example provided was comparable to Congress Street (two-lane, two-way roadway with no excess width for thru vehicles in the event of double parking). Additionally, no quantitative data was provided to support the number of valet spaces provided in these examples. Finally, no data was provided concerning the arrival and departure mode of hotel guests in Boston -- where regional public transit is well-established and far-reaching -- versus Portland, where nearly all guests are likely to arrive in a personal automobile or TSP/taxi. The potential for blockages on Congress is a critical concern for emergency response, and a significant traffic concern.

- The Applicant should continue to explore ways to make a valet operation on Preble Street work. Other places of interest in Maine and elsewhere program a separate address for parking and valet operations if it is different from the primary use -- for example, the Maine Medical Center Parking Garage has a separate address from the Maine Medical Center proper -- which helps direct users to the correct location based on their need. Even if the hotel address must be on Congress Street, it may be possible to provide a Preble Street address for valet parking operations.

We have other project-related comments for the Applicant as well; Jodie Keene will provide them to you directly.

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852





Shukria Wiar <shukriaw@portlandmaine.gov>

477 Congress - Congress Street Parking Recommendations

Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Tue, Aug 17, 2021 at 12:59 PM

To: "Wiar, Shukria" <shukriaw@portlandmaine.gov>

Cc: "Thomas.Errico@tylin.com" <thomas.errico@tylin.com>, Keith Gray <kgray@portlandmaine.gov>, Jodie Keene <jkeene@portlandmaine.gov>

Hi Shukria,

Based on our review of the proposed site plan for 477 Congress Street, and the proposed curb adjustments, DPW recommends the following parking implementation along the frontage:

- 1.) The first two (2) spaces on the north side of Congress immediately west of Preble Street shall be 15-minute spaces
- 2.) The remaining spaces west of the 15-minute spaces shall remain two-hour metered parking

Thank you,
Jeremiah

Jeremiah J. Bartlett, PE, PTOE
Transportation Systems Engineer
Department of Public Works
[212 Canco Road, Suite B](#)
[Portland, Maine 04103](#)
jbartlett@portlandmaine.gov
(207) 874-8891



Shukria Wiar <shukriaw@portlandmaine.gov>

477 Congress initial comments

Jodie Keene <JKEENE@portlandmaine.gov>

Wed, Jul 21, 2021 at 10:40 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>, Mike Tremblay <mtremblay@portlandmaine.gov>, Deb Andrews <dga@portlandmaine.gov>

Hi Shukria,

Here are my initial comments for 477 Congress. Please let me know if you have any questions. I've copied Mike since most of these relate to the City's Technical standards. I've copied Deb for her opinion on the 2nd bullet point.

- The sidewalk slopes do not appear to be consistent with what the City requires, which is between 1% and 2% cross slope for the width of the sidewalk. Mike mentioned there were some limiting factors (road reconstruction, etc) which may necessitate some deviation, but I think we need to keep a close eye on this. Designing to 2% cross slope (which is the maximum) allows for absolutely no wiggle room. And designing a 5' strip of compliant sidewalk does not meet City expectations for ADA compliance.
- We will need to closely consider edge conditions for this site. The sidewalk to which they will be matching along Congress Street (in front of the First Parish UU) is in a herringbone pattern. How do they propose to tie in our standard brick sidewalk pattern to herringbone? We'll want a detail to review and approve. They are also tying into a paved walkway on Preble and appear to be using a flush granite curb to transition. Again, we'll want a detail to review and approve. It may be that the flush granite is appropriate at both transitions. **Deb may have some recommendations from the HP perspective.**
- Do we need easements for the four proposed electrical vaults in the ROW on Preble Street? I believe this came up for a few projects recently but I don't recall where it landed. Jimmy Dealaman may recall as I believe one of his projects had this condition.
- The ADA ramps are not the same across plans. I don't know what they are actually proposing here. This should be clarified and consistent on all plans.
- The curb detail provided is incorrect. The City requires all granite curbing to be set in concrete. They are also proposing to remove and reset the existing granite curb. This is subject to the condition of the existing curb. If the existing curb is broken, chipped, of inadequate dimensions, etc. they will need to use new granite. They should work with Craig Sloan, engineering inspector, during construction to ID which curbing can be reused.
- I did not see an erosion and sedimentation control plan. They need to submit an ESC plan for review and approval.
- The tree wells are shown on the site plan as flush granite but the detail provided shows our standard raised tree well. This should be clarified and consistent with the City's Technical Standards and Jeff Tarlings recommendations.
- The utility plan shows 3 water lines, which I'm sure is just a drafting error. But this should be corrected.
- How is rooftop runoff managed? We prefer it to be connected into the sewer separately from the sanitary waste on site in anticipation of future separation.
- It may be helpful to see a demolition plan, which will answer the following questions.
 - Where is/are the existing water line(s) and how will they be capped?
 - Where is/are existing sewer line(s) and how will they be capped?
- All details / detail sheets should be revisited: duplicate details should be removed; details should be consistent with the City's Technical Standards; details not applicable to this project should be removed.

I hope this helps!

Thanks,
Jodie

Jodie W. Keene, Stormwater Coordinator

(she/her/hers) Office: 207.874.8832 | Mobile: 207.317.1956

City of Portland, Department of Public Works, Water Resources

[212 Canco Road, Suite B, Portland, Maine 04103](#)

I acknowledge that I live and work on the traditional land of the Abenaki People.



Planning and Urban Development Department Planning Division



Subject: B-3 Pedestrian Activities District Review – 477 Congress Street (Time & Temperature Building)
Written by: Caitlin Cameron, Urban Designer
Date of Review: Tuesday, July 7 2021

The project at 477 Congress Street – Canal Landing - was reviewed according to the B-3 PAD standards by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Kevin Kraft, Deputy Director.

B. Pedestrian Activities District (PAD)

In addition to subsection 1 (a through d), proposed development and substantial building alterations located within the Pedestrian Activities District (PAD) overlay zone . . . shall be designed and constructed to accommodate pedestrian-oriented uses at the street level. Proposed development located within the PAD encouragement areas which is not initially constructed to accommodate pedestrian-oriented activities at the street-level shall be designed to have the capability of accommodating pedestrian-oriented uses through non-structural building alterations.

1. Exterior design of street level building façade

- Existing façade design kept intact with adequate windows/doors and visual interest of architectural elements
- One additional door added to Congress Street at retail/grab and go
- The four entrances should be distinguished and clearly relate the uses. A canopy at the arcade entrance competes with the hotel lobby and is unnecessary from a functional standpoint because the doors are recessed.

2. Design and placement of impenetrable exterior building features

- Existing building that maintains existing structure, entrances, storefront

3. Orientation and accessibility to the street

- There are four entrances on Congress street to these uses – restaurant, arcade, hotel lobby, retail/grab and go.
- Visual accessibility should be created by using transparent glass rather than the existing tinted glass which inhibits visual connection and is also reflective.

4. Adequacy of interior layout

- Interior layout maintains the ability for lobby, restaurant, and retail spaces.
- The plans show a new egress stair placed at the Congress Street façade – **how will this impact the windows? Will the windows remain transparent?**

5. Continuity of street level uses

- The Congress Street frontage includes active street-level uses for the majority of the façade (with the exception of the stair tower introduced between the hotel and arcade entrances) – continuity is maintained with the existing street wall, fenestration at the ground level, and active uses for the whole width of the façade.
- Service entrances, etc. are placed on sides/rear.
- The sidewalk, canopy, and lighting design shall be consistent with the Site Plan and Historic District standards.



Shukria Wiar <shukriaw@portlandmaine.gov>

477 Congress St - Hotel Inclusionary Zoning

Victoria Volent <vvolent@portlandmaine.gov>
To: Shukria Wiar <shukriaw@portlandmaine.gov>

Wed, Jul 21, 2021 at 12:19 PM

Hi Shukria,

[477 Congress Street](#) proposes the creation of a hotel with 186 guest rooms. To comply with the Hotel IZ Ordinance, the applicant has indicated they intend to pay the fee-in-lieu of \$707,916 (186 X \$3,806) prior to receiving their C/O.

Should the actual number of guest rooms change, the fee-in-lieu would need to be recalculated.

Thank you,

Victoria

Victoria Volent
Housing Program Manager
Housing and Community Development
Phone: 207-482-5028
www.portlandmaine.gov

HISTORIC PRESERVATION CERTIFICATION APPLICATION PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

5. Description of Physical Appearance:

Setting: The Time and Temperature Building is located in downtown Portland, ME between two primary arterials, Congress Street and Cumberland Avenue. The area immediately surrounding the site is characterized by mid-rise commercial and civic buildings. The Maine Historical Society and National Historic Landmark Wadsworth-Longfellow House is located immediately to the west on the same block.

Site: The subject building sits on a roughly 0.70 acre site at the northwest corner of the intersection of Congress Street and Preble Street. The primary façades of the building front on Congress Street and Preble Street, both of which front public concrete sidewalks. The site is fully built out.

Exterior: The subject building is comprised of four distinct resources: the Chapman Building, the Preble House Building, 10-20 Preble Street, and the B.F. Keith Theater. The following physical description will be defined by the four distinct resources.

The Chapman Building: The granite, terracotta, and buff brick building is a restrained example of the Classical Revival style. When compared to the neighboring Fidelity Trust Building, it is simple in its decorative detail. The Chapman Building in its original configuration exhibited the base, shaft, and capital organization so typical of commercial structures of its period at its primary street-facing south and east elevations. The base is three-stories high and divided into three parts. At the south elevation, the base's centerpiece is a slightly recessed main banking hall entrance, with a stone entablature complete with carved eagle, and grandly scaled windows above and to its sides. The recessed, center three bays above the main entrance on the south elevation are emphasized by four, two-story-high, fluted engaged columns that provide liveliness to the base. They contrast to the simple, modern storefronts on the first floor. A simple cornice caps the base at the third floor. The first story is of granite (now painted gray) and the upper stories of terracotta.

The fourth through tenth floors form the shaft and are simply detailed. On either side, outer bays have stone quoins at their edges and two vertical rows of single windows with double-hung one-over-one sash, separated by a full height pier. The main center section has three bays, each with a pair of double-hung windows separated by a mullion.

A simple cornice with an egg-and-dart design is atop the tenth story and forms the bottom edge of the building's "capital". Two balconies, each supported on four massive brackets, extend the cornice at the two edge bays.

The building "capital" continues as the eleventh and twelfth floors. Windows are separated by pilasters capped by Corinthian capitals. A simple cornice above these capitals was the original

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

top edge of the building but was previously removed when the top two floors were added in 1962.

The north and west elevations of the building are utilitarian, built of buff brick with no ornamentation. On the north elevation, there is an exterior fire escape from the 12th story that is enclosed within aluminum siding.

When they were added in 1962, the thirteenth and fourteenth floors made no attempt to relate to the style, detail or materials of the original building including the fenestration pattern and were constructed of modern curtainwall. In 1986-87, the top two floors were reclad in a stucco coating that was detailed with simplified, stylized classical motifs. New windows were grouped to more closely correspond with original patterns below. The thickness of the new cladding causes the addition to extend beyond the plane of the original building walls.

The exterior retains a large degree of integrity, with modifications to the storefronts at the first floor and removal of the cornice at the roof line as the only notable changes. The original upper story one-over-one wood windows were replaced with similar aluminum one-over-one windows in the 1980's without any noticeable impact to the buildings appearance from the street. The two stories added in 1962 were originally clad with enameled steel or aluminum panels and had larger single-light aluminum framed windows. In the mid-1980's these floors were reclad in dry-vit stucco and the windows replaced with smaller double-hung vinyl units. These floors were added after the district's period of significance (1785-1958) and have been altered since their original construction. A large flashing time and temperature sign on the roof of the vertical addition dates to the 1990's.

Preble House Building: The building has been remodeled several times and presents a variety in stylistic treatment of the street level and upper floors. The street facing south façade was redesigned in 1924 when the building was converted into a bank branch and offices by the Portland Savings Bank. As part of the redesign, the first floor was built out to the sidewalk. The first floor has a stately Beaux-Arts composition of display windows with transoms, framed by stone storefront piers at outer edges and smaller piers at the inner edges. The smaller piers form the frame for the central door, which has carved trim and an entablature featuring decorative garlands and medallions. Above the doors and display windows is a richly detailed stone cornice.

Above and set back from the first floor are the upper three stories of the original building, built of painted brick with simple aluminum double-hung windows and a simple metal cornice. The brick west elevation faces the Henry Wadsworth Longfellow House and Maine Historical Society's Brown Research Library. The south portion of the elevation, closest to Congress Street, is painted to match the brick on the upper stories of the south façade. The rear portion is utilitarian red brick. A light well separates the building into two sections above the first story, which separates the painted and unpainted portions of the wall. Large modern aluminum framed

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

windows light the banking hall with smaller double hung aluminum windows on the remainder of the elevation. The north and east elevations abut adjoining buildings on the first two stories, with utilitarian brick walls above.

10-20 Preble Street: The primary east elevation of the building presents as three sections, two four-story sections and a two-story section to the north. The four-story Italianate painted brick commercial section has segmental arched window lintels on the upper two floors of the primary east facade. The northern four-story section of the building at the street facing east elevation has projecting belt courses between the upper floors and a restrained Italianate cornice in brick. The south four-story section of the east elevation is very plain and unadorned. Large Chicago style windows are located at the second floor, installed c.1920. The two-story red brick section of the building, adjoining the B.F. Keith Theater entrance, has a late 20th century red brick facade, which replaced a two-story 19th century Italianate brick storefront façade. Storefronts at the first floor throughout are modern.

The north and south elevations of this building fully abut other buildings with party walls at the lower floors. The west elevation is exposed at the upper floors, above the rear arcade, and is plain red brick with simple one-over-one aluminum framed windows on both floors.

B.F. Keith Theater: The primary street facing east elevation features a two-story façade that is divided into nearly equal halves. Above the former theater entrance, on the south side, is a grand arch window with a scrolled keystone ornament located at the second-floor level, surrounded with Adamesque stucco ornament, sitting on an entablature supported by round columns with Ionic capitals and flanking flat paneled pilasters with Doric capitals. The entrance is recessed, flanked by painted brick, and has a modern double-leaf glazed door and arched transom with modern wood paneling to the side. The entrance formerly spanned this entire bay, though it was later infilled when the theater was removed and the interior space subdivided.

The north end of the east elevation is more restrained. It has three windows with keystone lintels set in the brick wall on the second floor, above the entablature that continues from the south side of the building, the first-floor has a modern storefront with wood-paneled bulkheads and transom. A brick pilaster with a Doric capital sits on a granite base to the right of the storefront, balancing the more elaborate pilasters at the south side of the façade and at the center, framing the entrance, and carrying the entablature. A bracketed and denticulated cornice topped with a classical balustrade caps the façade. The current paneled design of the recessed entry is a late 20th century treatment, as is the storefront infill on right side of the building.

The secondary north and west elevations are utilitarian in character and are constructed of red brick. The south elevation abuts the adjacent building and is not visible.

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

Interior: Similar to the exterior, the interior description of the subject building will be defined by the four separate resources.

The Chapman Building: The interior of the building features retail space located at the first floor, a two-story former banking hall at the second story, and offices at the remaining upper floors. The building is largely vacant. At the first floor along the west elevation is the building's primary entrance that provides access to the elevator lobby. Within the internal vestibule finishes include: flat plaster walls with ornamental plaster pilasters and crown molding, gypsum board ceiling and modern ceramic tile floor. Doors are compatible modern glazed rim doors. To the north is the building's elevator lobby with a bank of three elevators with modern wood surrounds. Finishes within the space include: tile floors, and painted gypsum board walls and ceilings and plaster corbels. Adjacent to the elevator bank is the building's primary stair which is open to the lobby and consists of a metal railing and risers with terrazzo treads. Modern wood-framed storefronts flank the lobby which provides access to a highly altered arcade space that is located within the adjacent building at 10-20 Preble Street. The remainder of the first floor features modern offices with finishes that include: carpet floors, painted gypsum board walls, and acoustic drop tile ceilings.

The second floor features the former two-story banking hall which is accessed by a modern wood communicating stair as the historic stair from the street was previously removed c. 1980. The banking hall space is generally open in design with a balcony located at the second-story perimeter. Finishes of the space are generally reflective of the original construction. A former board room is located at the balcony/third floor level and features wood wall paneling and a fireplace.

The remaining upper floors all feature modern offices with finishes that are reflective of typical tenant turnover. Elevator lobbies on each floor have modern gypsum board and acoustic tile finishes with mail chutes remaining. Floors within the upper floor elevator lobbies are generally carpet with limited areas of terrazzo. Floor plans on the upper floors are inconsistent and are reflective of substantial changes over time. Finishes within corridors and tenant spaces include: vinyl tile and carpet floors, painted gypsum board walls, and acoustic tile/gypsum board drop ceilings. Perimeter walls are generally furred out with modern trim and there are no historic corridors, doors or finishes beyond limited areas of painted wood baseboard and window trim.

Preble House Building: Internally, the first story is self-contained and accessed from the Congress Street door with an internal secondary pass-through to the adjacent Chapman Building. The first floor consists of a large banking hall with a stair, elevator and vault to the rear (north) end. Within the banking hall the finishes including flat plaster and gypsum board walls with marble paneling and pilasters and modern applied wood molding, plaster ceiling beams with inset acoustic tile ceilings and modern ceramic tile and carpet flooring. Columns are finished in

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

marble with modern wood wainscoting that matches the modern teller desk. The upper floors are modern office space consisting of furred out perimeter walls finished in painted gypsum board with modern trim, gypsum board demising walls, suspended acoustic and gypsum board ceilings and carpeted floors. The upper floors have completely modern floor plans and have undergone multiple tenant renovations since the building was converted to office use in the 1920s. A single-leaf pass-through on the upper floors provides access to the elevator lobby within the adjacent Chapman Building.

10-20 Preble Street: Internally, the first floor contains retail spaces with offices located at the upper floors. The first floor contains a heavily modified arcade at the rear of the building, which runs north-south and features replacement storefronts on its east and west perimeters that provide access to the flanking retail spaces. Finishes of the arcade are modern throughout and include: modern vinyl flooring, and painted gypsum board walls and ceiling with modern light fixtures. Small communicating stairs furnish the space due to the slope of the floor. The flanking retail spaces are finished with modern materials, which include: carpet and vinyl tile floors, painted gypsum board walls with modern baseboard, and painted gypsum board and acoustic tile drop ceilings. Formerly a two-story space, a floor level was inserted into the arcade space in the 1980s, altering the volume and character of the space. The commercial spaces fronting Preble Street have modern finishes throughout including: gypsum board walls, suspended acoustic tile ceilings and carpeted floors. A single skylight, which formerly lit the arcade space, is located at the second floor where the arcade was infilled. The south and north ends of the arcade space provide access to the Chapman Building elevator lobby and B.F. Keith lobby, respectively. The offices at the upper floors all contain modern finishes that include: carpet floors, painted gypsum board walls with modern baseboard, and acoustic tile drop ceilings.

B.F. Keith Theater: The primary entrance leads to a long hallway that historically served as the entrance to the theater (theater auditorium no longer extant). The entrance area was previously subdivided with a gypsum board wall and the north side is now utilized for leasable office space. On the interior, cast plaster ornamentation, a stained-glass window, and areas of mosaic tile floor remain in the theater entrance area. The south side functions as a corridor that provides access to the commercial space as well as a non-historic, unrelated modern parking structure to the west with both historic and modern finishes. At the west end of the first floor there is a passage into the arcade that is located within the adjacent building at 10-20 Preble Street.

The second story contains a large commercial space with several smaller rooms to the rear and contains modern finishes including: gypsum board walls, acoustic tile ceiling and commercial tile flooring. An enclosed staircase connects the two floors toward the west end of the building.

At the rear of the building, outside the district boundary, a corridor connects the theater entrance area to the surface parking and parking garage at the corner of Brown Street and Cumberland Avenue. This corridor and vacant space are outside the historic district boundary.

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

6. Statement of Significance

Summary

The Time and Temperature Building is comprised of four separate resources, all of which are determined contributing to the Congress Street Historic District. The district was certified by the National Park Service on May 25, 2010. The building was built between 1870 and 1980.

The four components of the complex, the Chapman Building at 477 Congress St., Preble House addition at 481 Congress St., 10-20 Preble St., and the B.F. Keith Theater at 22 Preble Street have been internally connected and functionally related since construction of the Chapman Building (the newest of the buildings) in 1924. The Chapman Building was built on the site of the Preble House hotel, which was originally a Federal style mansion, built c. 1810. A later addition to the Preble House at 481 Congress Street, was left standing and connected internally with the new building with a Beaux Arts storefront added at the first story to relate it to the new building. The existing late 19th century buildings at 10-20 Preble Street and the B.F. Keith Theater entry and lobby were connected to the new building by infilling an alleyway to create a two-story tall arcade lit by skylights. New storefronts in the arcade provided access to the Preble Street shops, in addition to their existing storefronts on the street. Storefronts were also added on the opposite side of the arcade to access new shops in the rear of the surviving portion of the Preble House. The arcade also served as a Congress Street entrance to the B.F. Keith Theater.

History

The history of the building will be defined by each respective individual resource.

The Chapman Building: The fourteen-story Chapman Building (now known as the Time and Temperature Building) was designed as a twelve-story tower by Portland architect Herbert W. Rhodes. The original building was completed in 1924 on a site previously occupied by the Preble House Hotel. The Preble House Hotel began as the Federal style residence of Commodore Edward Preble, designed by Alexander Parris and completed c. 1808, and was expanded several times after conversion to the Preble House Hotel in 1860. The evolution of uses on this site is characteristic of the district, where properties originally developed for residences were later converted to commercial uses and in many cases subsequently demolished and replaced with much larger commercial buildings, as here.

As originally built, the Chapman Building housed the Chapman Bank on the mezzanine level (2nd floor) with retail spaces on the first story. Above the bank were nine stories of commercial office space for lease. The principal Congress Street entrance, located near the center of the south elevation and ornamented with a carved granite eagle over the door, served the bank with a

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

secondary entrance, located within the westernmost bay of the south elevation, serving the elevator lobby to the upper stories and connecting to the retail arcade located within the adjacent building at 10-20 Preble Street. The subject building was the second “skyscraper” built in Maine, the first being the ten-story Fidelity Building just across Preble Street. Both buildings represented the movement of financial institutions from their traditional location near the waterfront to the newly developing commercial center of the city along Congress Street near Monument Square.

Preble House Building: The Preble House Building is a four-story structure that was originally an addition to the Preble House Hotel. The Preble House Hotel grew from the classic Federal style three-story brick mansion of Commodore Edward Preble. Designed by Alexander Parris, it was built between 1806-08. Converted to a hotel in 1860, it eventually gained a fourth floor as well as a four-bay addition to the east and a three-bay addition to the west. 481 Congress Street is the three-bay addition on the west. After 1906, the west end of the first floor was utilized as a secondary entrance to B.F. Keith’s vaudeville theater, which stood to the north of the building, with its primary entrance from Preble Street. The upper stories were primarily used for professional office space after the removal of the remainder of the hotel building. A branch office of the Portland Savings Bank was established on the first floor in 1906. In 1924, the bank undertook a renovation of the building and moving its administrative offices into the building; these occupied the upper floors. The entire first floor was renovated for use as the bank’s primary banking hall. As part of this renovation, the first floor was expanded southward to the Congress Street sidewalk and finished with a new, Beaux-Arts façade typical of bank design of the period. In the mid-20th century, the first floor was remodeled for use as a banking hall.

The building continued in use as the offices and banking hall for Portland Savings Bank, though the offices were later leased to tenants during the mid-late 20th century. Following a series of banking mergers, the first floor banking hall was later branded as a People’s Savings Bank branch during the 1980s, Banknorth branch during the 1990s and as a TD Bank branch since the mid-2000s, all dating to the lineage of Portland Savings Bank.

10-20 Preble Street: This two and four-story Italianate style commercial building is typical of downtown commercial structures of the period with storefronts on the first floor and office or warehouse spaces above. The two-story red brick section at the north end was historically a storefront with commercial space on the second floor. The rear arcade space was constructed c. 1924 as an addition to the subject building. This is confirmed by the City of Portland 1924 tax record for this property which confirms that the property included the arcade, stores, Preble Street lunch room (1st floor) and remodeled remainder of the building (upper floors). The building is representative of the transition of the Monument Square area from residential to commercial in the second half of the 19th century. One of Portland’s first railroad depots was built at the foot of Preble Street for the York and Cumberland Railroad before 1850, making the street an important artery from the depot to the city’s commercial center in what is now called the Old Port. This was the start of the shift of the commercial center to Congress Street and

HISTORIC PRESERVATION CERTIFICATION APPLICATION PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

Monument Square. The Great Fire of 1866, which destroyed the old commercial center entirely, contributed to this movement toward Monument Square.

The building has been utilized for commercial and retail tenants throughout its entire existence through to the present. Typical changes were made to the building as it was updated for tenants, most notably the installation of Chicago-style windows on the second floors in the 1920s, periodic installation of new storefronts and a new façade at the two-story section. The rear arcade addition was constructed in the 1920s but did not alter the historic appearance of the block on its primary Preble Street elevation. The red brick main elevation was later painted white during the latter half of the 20th century.

B.F. Keith Theater: The surviving portion of the B.F. Keith Theater is the former main entrance area. The large theater auditorium it served was located at the center of the block and was demolished in 1965. That space is now a surface parking lot and adjacent parking structure which are located outside of the district boundary. Adjacent to the theater entrance, a storefront opened into the retail space. Following the demolition of the theater, the entrance area was converted into retail space and utilized as an entrance to the modern parking area. Many of the historic finishes were retained.

The B.F. Keith Theater was one of several vaudeville theaters built in the district in the early 20th century, when the area was the heart of Maine's most urban environment. Only one theater survives intact in the district, the State, built in 1929 just west of Congress Square.

The B.F. Keith Theater chain stretched across the U.S. with more than 30 theaters by 1909. Through mergers, the chain eventually owned or controlled more than 700 theaters in the U.S. and Canada. Like many vaudeville theaters, the B.F. Keith Theater in Portland eventually was converted to a movie theater and renamed the Civic.

The theater's architect, Francis A. Fassett, was one of Portland's most important architects of the late 19th and early 20th century. Although the theater space itself no longer stands, the Preble Street façade is clearly a theater façade (in spite of the removal of the marquee) and is the only surviving theater façade by Fassett.

Conclusion

All portions of the Time and Temperature Building complex contribute to the Congress Street Historic District (NR 2010). The buildings of the complex serve as examples of the development and architectural history for which the district is significant.

**HISTORIC PRESERVATION CERTIFICATION APPLICATION
PART 1 – EVALUATION OF SIGNIFICANCE**

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

Bibliography

“Congress Street Historic District,” National Register of Historic Places. 25 May 2010.

DRAFT

HISTORIC PRESERVATION CERTIFICATION APPLICATION

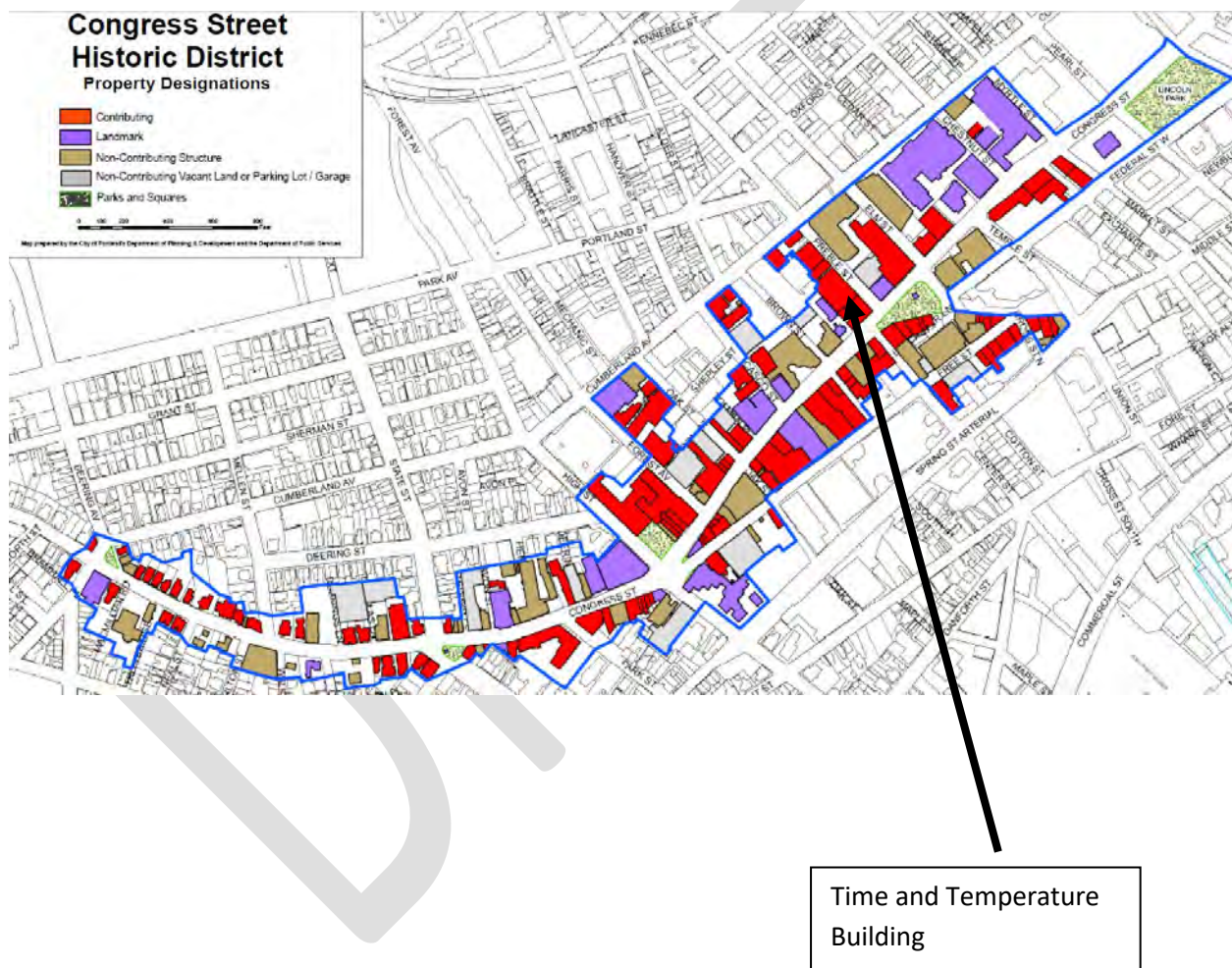
PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME



Appendix A: NR District Map



HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

District Inventory for 10-20 Preble Street

Monument Square	28	Emerson Clapp Building	Contributing
Monument Square	50 (474 Congress St.)	Lancaster Building	Contributing
Oak Street	44-50	Frye Building	Contributing
Oak Street	47-55 (51)	The Everett Chambers/Hotel Everett	Contributing
Oak Street	57		Non-Contributing
Oak Street	70-82	Parking Lot	Non-Contributing
Oak Street	104-106	Tennessee Hotel Building	Contributing
Preble Street	7	Parking Lot	Non-Contributing
Preble Street	10-20		Contributing
Preble Street	15-23	Parking Lot	Non-Contributing
Preble Street	22	B. F. Keith Theater	Contributing
Preble Street	24	Potter Building	Contributing
Preble Street	26-34	Wadsworth Building	Contributing
Preble Street	36-40		Contributing
Spring Street	97	Charles O. Clapp House	Landmark
Spring Street	103	McLellan-Sweat Mansion - PMA	Landmark
Spring Street	103 (rear)	Sweat Memorial Galleries - PMA	Landmark
Spring St	73-93 (24-30 Oak St.)	Vacant Land	Non-Contributing
State Street	186-188		Contributing
State Street	190-192		Contributing
Tolman Place		Parking Lot	Non-Contributing

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

District Inventory for the B.F. Keith Theater

Monument Square	28	Emerson Clapp Building	Contributing
Monument Square	50 (474 Congress St.)	Lancaster Building	Contributing
Oak Street	44-50	Frye Building	Contributing
Oak Street	47-55 (51)	The Everett Chambers/Hotel Everett	Contributing
Oak Street	57		Non-Contributing
Oak Street	70-82	Parking Lot	Non-Contributing
Oak Street	104-106	Tennessee Hotel Building	Contributing
Preble Street	7	Parking Lot	Non-Contributing
Preble Street	10-20		Contributing
Preble Street	15-23	Parking Lot	Non-Contributing
Preble Street	22	B. F. Keith Theater	Contributing
Preble Street	24	Potter Building	Contributing
Preble Street	26-34	Wadsworth Building	Contributing
Preble Street	36-40		Contributing
Spring Street	97	Charles Q. Clapp House	Landmark
Spring Street	103	McLellan-Sweat Mansion - PMA	Landmark
Spring Street	103 (rear)	Sweat Memorial Galleries - PMA	Landmark
Spring St	73-93 (24-30 Oak St.)	Vacant Land	Non-Contributing
State Street	186-188		Contributing
State Street	190-192		Contributing
Tolman Place		Parking Lot	Non-Contributing

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

District Inventory for the Chapman Building

Congress Street	396	Post Office Square (Building 1)	Contributing
Congress Street	400	Post Office Square (Building 2)	Contributing
Congress Street	415	Masonic Building	Landmark
Congress Street	423-433	First Parish Church	Landmark
Congress Street	431-441	The Metropolitan Building	Contributing
Congress Street	443-449	Clapp Memorial Building	Landmark
Congress Street	451-459	Portland Public Library	Contributing
Congress Street	465-467	Fidelity Trust Building	Landmark
Congress Street	474	Lancaster Block	Contributing
Congress Street	475-477	Chapman Building (Time & Temp Bldg.)	Contributing
Congress Street	480-482 (128-136 Center St.)	Kamber Building	Contributing
Congress Street	480 1/2 (sidewalk)	Bus Shelter	Non-Contributing
Congress Street	479-481	Preble House Building	Contributing
Congress Street	482-484 (114-126 Center St.)	Congress St. façade only (not Center St. façade)	Non-Contributing
Congress Street	483-485	Longfellow House and M.H.S. Library	Landmark
Congress Street	486-488		Contributing
Congress Street	489-495 (27-39 Brown St.)		Non-Contributing
Congress Street	490 and 492	Kimball Court	Non-Contributing
Congress Street	496-498	Beaver Block	Contributing
Congress Street	499-513 (511)	Maine Savings Plaza	Non-Contributing
Congress Street	500		Contributing
Congress Street	504-506		Contributing
Congress Street	508-514 (510)	W.T. Grant Building	Contributing
Congress Street	516-518		Non-Contributing
Congress Street	515-519	Charitable Mechanics Hall Building	Landmark
Congress Street	522-528	Porteous Building/Miller Building	Landmark
Congress Street	523-543	J.B. Brown Memorial Building	Landmark
Congress Street	536-538	Durant Block	Contributing
Congress Street	542	F.W. Woolworth Building	Contributing
Congress Street	541-549		Contributing
Congress Street	550	Asa Hanson Heirs Block	Contributing
Congress Street	551	Lerner Shoe Block	Contributing
Congress Street	553	Benjamin Larrabee Heirs Block	Contributing

HISTORIC PRESERVATION CERTIFICATION APPLICATION

PART 1 – EVALUATION OF SIGNIFICANCE

Property name: Time and Temperature Building NPS Project Number _____

Property address: 477 Congress Street, Portland, ME

District Inventory for the Preble House Building

Congress Street	396	Post Office Square (Building 1)	Contributing
Congress Street	400	Post Office Square (Building 2)	Contributing
Congress Street	415	Masonic Building	Landmark
Congress Street	423-433	First Parish Church	Landmark
Congress Street	431-441	The Metropolitan Building	Contributing
Congress Street	443-449	Clapp Memorial Building	Landmark
Congress Street	451-459	Portland Public Library	Contributing
Congress Street	465-467	Fidelity Trust Building	Landmark
Congress Street	474	Lancaster Block	Contributing
Congress Street	475-477	Chapman Building (Time & Temp Bldg.)	Contributing
Congress Street	480-482 (128-136 Center St.)	Kamber Building	Contributing
Congress Street	480 1/2 (sidewalk)	Bus Shelter	Non-Contributing
Congress Street	479-481	Preble House Building	Contributing
Congress Street	482-484 (114-126 Center St.)	Congress St. facade only (not Center St. facade)	Non-Contributing
Congress Street	483-485	Longfellow House and M.H.S. Library	Landmark
Congress Street	486-488		Contributing
Congress Street	489-495 (27-39 Brown St.)		Non-Contributing
Congress Street	490 and 492	Kimball Court	Non-Contributing
Congress Street	496-498	Beaver Block	Contributing
Congress Street	499-513 (511)	Maine Savings Plaza	Non-Contributing
Congress Street	500		Contributing
Congress Street	504-506		Contributing
Congress Street	508-514 (510)	W.T. Grant Building	Contributing
Congress Street	516-518		Non-Contributing
Congress Street	515-519	Charitable Mechanics Hall Building	Landmark
Congress Street	522-528	Porteous Building/Miller Building	Landmark
Congress Street	523-543	J.B. Brown Memorial Building	Landmark
Congress Street	536-538	Durant Block	Contributing
Congress Street	542	F.W. Woolworth Building	Contributing
Congress Street	541-549		Contributing
Congress Street	550	Asa Hanson Heirs Block	Contributing
Congress Street	551	Lerner Shoe Block	Contributing
Congress Street	553	Benjamin Larrabee Heirs Block	Contributing



Shukria Wiar <shukriaw@portlandmaine.gov>

Time Temp Building Project

Jeff Tarling <jst@portlandmaine.gov>

Thu, Jul 22, 2021 at 3:53 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Kevin Kraft <kkraft@portlandmaine.gov>, James Rather <jrather@portlandmaine.gov>

Hi Shukria -

In review of the proposed Congress Street project we have the following tree & landscape recommendations:

Street trees - We would like to see raised granite tree wells similar to those nearby near the Public Library. We can discuss exact locations and sizes.

Off Site trees - Trees are needed across the street, similar to the off site tree and landscape work that nearby One Monument Square project donated to Monument Square tree replacement and raised granite tree planters, we could use similar trees at Monument Way towards One City Center.

Overall, the current, already constructed streetscape does not present much room in the way of supporting additional trees or landscape. Project contribution to needed trees and the landscape across the street would be a welcomed addition.

Parks & Recreation is willing to work with the development team on this aspect.

Thanks,

Jeff

Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities
Forestry & Horticulture
[212 Canco Road - Suite A](#)
[Portland, ME. 04103](#)
(207) 808-5400
jst@portlandmaine.gov



Shukria Wiar <shukriaw@portlandmaine.gov>

Congress Street Valet - Time & Temp Building

Robert Martin <rmm@portlandmaine.gov>

Mon, Aug 16, 2021 at 2:55 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Frank Clark <FClark@portlandmaine.gov>, Keith Gautreau <kng@portlandmaine.gov>, Kevin Kraft <kkraft@portlandmaine.gov>

Congress Street Valet - Time & Temp Building

All,

The Portland Police Department would oppose the proposal to allow Valet Parking on the Congress Street side of 477 Congress Street.

That section of Congress Street is heavily travelled with additional side street traffic from both Center Street and Preble Street in the immediate vicinity. The proposed site is also directly across the street from an active bus stop. All of this contributes to a natural pinch point where traffic is often restricted to single lanes and eastbound traffic is often forced into the westbound lanes.

Another concern is the frequent use of Monument Square for events and protests. Access to Monument Square is closed several times each year to accommodate hundreds and sometimes thousands of people. These road closures would include the proposed valet area.

For these reasons we believe the use of Congress Street for Valet parking would not be an appropriate or safe option. We would be supportive of the proposed valet option on Preble St.

If we can be of further assistance please let me know.

Regards,

Bob Martin

--

Major Robert Martin
Portland Police Department
Support and Investigative Services
[109 Middle Street](#)
[Portland, Maine 04101](#)

Office: (207) 874-8604
RMM@PortlandMaine.gov
Follow us [@PolicePortland](#)



Shukria Wiar <shukriaw@portlandmaine.gov>

Valet operations at Time & Temp building

Deb Andrews <dga@portlandmaine.gov>

Tue, Aug 17, 2021 at 3:16 PM

To: Kevin Kraft <kkraft@portlandmaine.gov>, Shukria Wiar <shukriaw@portlandmaine.gov>

Kevin and Shukria,

This memo is in response to your question regarding the possibility of introducing another entry on the Preble Street elevation of the Time & Temperature building to accommodate hotel valet operations and, specifically, whether such an alteration would likely meet National Park Service review standards. I understand that meeting NPS review standards is essential in order for the proposed hotel project to qualify for historic tax credits.

While the Planning Department is not requiring the applicant to provide an additional entrance to accommodate valet operations, I agree that there's an opportunity to rethink how hotel patrons utilizing valet services enter the hotel and it is appropriate that all options be considered. It is my professional opinion that introducing a new secondary entry on the Preble Street elevation would meet the Secretary of the Interior's Standards for Rehabilitation provided the new entry is clearly differentiated from and compatible with the historic structure. The new entry should be more recessive in appearance and not compete for architectural prominence with the original main entrance. The new entry would accommodate valet operations and also provide an entryway into the hotel for arriving guests who would find entry from their initial drop-off point more convenient. Once guests are settled into the hotel, the Congress Street entrance would serve its original intended role as the formal and primary entrance.

Deb

--

Deb Andrews
Historic Preservation Program Manager
[City of Portland](#)
[389 Congress Street](#)
Portland, Maine 04101
(207) 874-8726



Portland Fire Department Headquarters Office of the Chief of Department

To: Shukria Wiar, Senior Planner
CC: Christine Grimando, Director of Planning Kevin Kraft, Deputy Director
From: Keith Gautreau, Fire Chief
Date: August 18, 2021
RE: Congress Street Valet - Time & Temp Building

The purpose of this memo is to address the proposed valet parking options that have been presented to the City for the Time & Temp Building at 477 Congress Street. The applicant had submitted an option of having valet parking operations on Congress Street some time ago and the Fire Department at that time could not support that location from an emergency response and safety concerns. There was discussion of a second option located on Preble Street in which the Fire Department still feels would create some issues but could support that location for valet parking.

Congress Street is the primary route for public safety and emergency response vehicles in the downtown district. The downtown district generates our highest calls for service in the City. At this particular address on Congress Street there already exists a pinch point at the intersection of Preble, Center and Monument Sq. creating a safety issue. It also experiences an extremely high volume of pedestrian traffic due to the bus stop, farmer's markets, public library and several retail and business occupancies. As it exists today without the proposed valet operations it is a high risk area for our emergency responses to the East and West ends of the peninsula.

Other Hotels are operating and moving their respective valet operations to secondary streets adjacent to the property such as;

- The Press Hotel (Exchange Street vs. Congress Street)
- The Canopy Hotel (Center Street vs. Commercial Street)
- The Hyatt Place Old Port (Valet underneath hotel off of Fore and Union)

It is for the reasons that I have articulated above that the Fire Department can not support Option #1 on Congress Street for valet parking operations at this location.

I'm happy to attend the Planning Board meeting to speak to this particular topic and answer any concerns or questions you may have.

Respectfully submitted,

Keith Gautreau, Fire Chief

Via Electronic Mail

August 13, 2021



Shukria Wiar, Planner
Planning & Urban Development Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Re: Time & Temperature Hotel – Notice of Public Meeting Certification

Dear Shukria:

I, Darrin Stairs, PE hereby certify that a notice of neighborhood meeting sign was posted from 08/11/21 to 08/25/21 prior to the public workshop held on 08/24/21 for the proposed project PL-001003-2020, at located at 477 CONGRESS ST.

Photo documentation of sign in situ:



Sincerely,

WOODARD & CURRAN, INC.

A handwritten signature in black ink, appearing to read "D. Stairs".

Darrin Stairs, PE
Project Manager

PN: 232868.00

Via Electronic Mail

August 2, 2021



Shukria Wiar, Planner
Planning & Urban Development Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Re: Time & Temperature Hotel – Response to Site Plan Review Comments

Dear Shukria:

Thank you for continuing to coordinate review of the Site Plan application for the proposed Time & Temperature Hotel located at 477 Congress Street, Portland, Maine. This letter compiles responses to comments received from the City on July 21, 2021; July 22, 2021; and July 29, 2021.

This application was originally submitted on May 3, 2021. It is our opinion that it is complete and addresses pertinent criteria in the Development Ordinance required for Site Plan review by the Board. We've posted the site informing the public of pending Planning Board meeting, as required by the City. We look forward to appearing before the Planning Board Workshop on August 10th.

City Comments

The comments received are provided by the City for reference and are italicized, with responses noted in blue.

A. Housing Program Manager – Victoria Volent – July 21, 2021

477 Congress Street proposes the creation of a hotel with 186 guest rooms. To comply with the Hotel IZ Ordinance, the applicant has indicated they intend to pay the fee-in-lieu of \$707,916 (186 X \$3,806) prior to receiving their C/O. Should the actual number of guest rooms change, the fee-in-lieu would need to be recalculated.

The applicant acknowledges the fee-in-lieu requirement for the project.

B. Traffic Engineer – Tom Errico – July 21, 2021

Detailed traffic count data from 2018 and 2019 used in the traffic analysis shall be provided for review and approval.

Status: The actual 2018 traffic count sheets shall be provided. As discussed at our July 14, 2021 meeting, StreetLight data should be used to compare 2018 data to current conditions.

Please see the attached Response to Comments memorandum from VHB dated July 30, 2021.



The trip generation estimate from the prior retail use assumed it generated 191 PM peak hour trips. This estimate seems high, and the applicant should consider other methods for estimating traffic to a retail use in the downtown area.

Status: The purpose of estimating trips from the site both historically and for the proposed project is to determine the need for a Traffic Movement Permit. While it does not appear a TMP will be required given credit for prior trips, documentation is necessary. Accordingly, the applicant shall revisit this item for the purposes of estimating traffic from the prior use. All backup calculations for trip generation estimates shall be provided.

[Please see the attached Response to Comments memorandum from VHB dated July 30, 2021.](#)

The applicant did not include any trips to the 5,100SF Roof Top Bar area of the project and I would request that further information be provided on this assumption.

Status: I don't support the applicant's assumption that given the use of a High Turnover Restaurant the trip generation estimate is conservative and thus accounts for any activity at the Roof Top Bar. The restaurant is estimated to generate 35 AM peak hour and 34 PM peak hour trips which does not seem to be overly conservative. The applicant should estimate traffic separately for the Roof Top Bar.

[Please see the attached Response to Comments memorandum from VHB dated July 30, 2021.](#)

The traffic study should provide trip assignment information for hotel and retail/restaurant land uses separately. It should also provide assumptions for parking locations (valet and self-park scenarios).

Status: Graphics shall be provided for both entering and exiting movements to valet and parking source locations.

[Please see the attached Response to Comments memorandum from VHB dated July 30, 2021.](#)

A safety analysis of the High Crash Locations (HCL) noted in the report shall be performed.

Status: The applicant has conducted the requested analysis and I concur that the High Crash Locations do not have patterns and/or contributing factors that can be mitigated. Most crashes involved parked vehicles, which highlights the nature of an active urban setting. I have no further comment.

[No additional response required by the applicant.](#)

The Traffic Operations Analysis indicates Congress Street currently operates with little delay and queuing. The applicant should calibrate the Synchro Model to reflect actual field conditions.

Status: The applicant indicates that a field observation was performed. Details of the observation shall be provided to determine its acceptability. Additional field studies may be requested. The applicant shall also provide the Synchro files for review and approval.

[Please see the attached Response to Comments memorandum from VHB dated July 30, 2021.](#)

C. DPW Comments – Mike Tremblay

After our call last Wednesday with the Applicant and after review of the materials provided by the Applicant on Friday 7/16/2021 about the proposed valet parking associated with the proposed hotel at 477 Congress Street, DPW remains opposed to the proposed valet parking area on Congress Street.



DPW still has strong concerns about potential blockage of Congress Street by double-parked vehicles. The Applicant has not provided sufficient data to support that the potential of blockages of Congress Street westbound will be eliminated. They provided examples of curbside valet areas in Boston; however, no example provided was comparable to Congress Street (two-lane, two-way roadway with no excess width for thru vehicles in the event of double parking). Additionally, no quantitative data was provided to support the number of valet spaces provided in these examples. Finally, no data was provided concerning the arrival and departure mode of hotel guests in Boston -- where regional public transit is well-established and far-reaching -- versus Portland, where nearly all guests are likely to arrive in a personal automobile or TSP/taxi. The potential for blockages on Congress is a critical concern for emergency response, and a significant traffic concern.

The Applicant should continue to explore ways to make a valet operation on Preble Street work. Other places of interest in Maine and elsewhere program a separate address for parking and valet operations if it is different from the primary use -- for example, the Maine Medical Center Parking Garage has a separate address from the Maine Medical Center proper -- which helps direct users to the correct location based on their need. Even if the hotel address must be on Congress Street, it may be possible to provide a Preble Street address for valet parking operations.

In meetings with City staff and in the application materials, the applicant has detailed the site, building and operational factors that require that the hotel entry is located on Congress Street.

We are providing three additional memoranda that support the need for valet services located at the building entrances front door on 477 Congress Street:

- Time & Temperature Hotel Entrance Memorandum, Archetype, July 30, 2021;
- Time & Temperature Hotel Entrance Memorandum, MacRostie Historic Advisors, August 2, 2021; and
- Time & Temperature Valet Services Memorandum, Oxford Hotels, August 2, 2021.

In short, this is due to Historic Preservation requirements, accessibility, and operational efficiency. In the applicant's opinion, disallowing a Valet Drop-off area on Congress Street may result in traffic congestion and problems on Congress Street, by failing to provide adequate valet services at the point where guests will attempt to access the hotel entrance. The applicant has proposed a robust valet parking program with adequate off-street space and staffing to prevent traffic issues on Congress Street.

D. DPW – Jodie Keene – July 21, 2021

The sidewalk slopes do not appear to be consistent with what the City requires, which is between 1% and 2% cross slope for the width of the sidewalk. Mike mentioned there were some limiting factors (road reconstruction, etc.) which may necessitate some deviation, but I think we need to keep a close eye on this. Designing to 2% cross slope (which is the maximum) allows for absolutely no wiggle room. And designing a 5' strip of compliant sidewalk does not meet City expectations for ADA compliance.

The existing sidewalk does currently meet ADA guidelines for cross slope. This is due to the fixed thresholds of the doorways of the existing building and the curb line of Congress Street. Per discussion with DPW, we have proposed to create a 5-foot-wide ADA compliant cross slope adjacent to the building and make up cross-slope differences in the "furnishing zone" at the curb line. This is the cleanest way to create a 2% cross slope given the existing curb elevations on Congress Street,



without introducing the prospect of ramps within the ROW to get into building doorways or significantly changing the cross slope of Congress Street, which is not desirable by the applicant nor the City. If the City requires some other expectation for ADA compliance, it has not been made known to the applicant.

We will need to closely consider edge conditions for this site. The sidewalk to which they will be matching along Congress Street (in front of the First Parish UU) is in a herringbone pattern. How do they propose to tie in our standard brick sidewalk pattern to herringbone? We'll want a detail to review and approve. They are also tying into a paved walkway on Preble and appear to be using a flush granite curb to transition. Again, we'll want a detail to review and approve. It may be that the flush granite is appropriate at both transitions. Deb may have some recommendations from the HP perspective.

The applicant proposes to resolve this as we work through the HP Application Process. Appropriate details will be introduced at that time, and the Applicant will comply with HP direction on the brick pattern. This can be a Condition of Approval if necessary.

Do we need easements for the four proposed electrical vaults in the ROW on Preble Street? I believe this came up for a few projects recently, but I don't recall where it landed. Jimmy Dealaman may recall as I believe one of his projects had this condition.

This is not the applicant's understanding and ask the City to confirm.

The ADA ramps are not the same across plans. I don't know what they are actually proposing here. This should be clarified and consistent on all plans.

The ramps were shown correctly on the Site Plan and the Grading Plan, which were the only plans revised for the last Response to Comments. We have updated the Utility Plan to match as well, and it has been uploaded to Eplan.

The curb detail provided is incorrect. The City requires all granite curbing to be set in concrete. They are also proposing to remove and reset the existing granite curb. This is subject to the condition of the existing curb. If the existing curb is broken, chipped, of inadequate dimensions, etc. they will need to use new granite. They should work with Craig Sloan, engineering inspector, during construction to ID which curbing can be reused.

The curb details match what is currently released in the City's Technical Standards. We have since been provided with an updated detail by Mike Tremblay and revised our details to match. The applicant understands that resetting of curb is dependent on condition and it will be verified during construction with the City inspector.

I did not see an erosion and sedimentation control plan. They need to submit an ESC plan for review and approval.

We have added Erosion Control (Catch Basin inserts) to the Grading Plan. Erosion control notes are included on Sheet C-302.



The tree wells are shown on the site plan as flush granite, but the detail provided shows our standard raised tree well. This should be clarified and consistent with the City's Technical Standards and Jeff Tarling's recommendations.

The plan note was previously revised based on comments from DPW to make them flush, but we've received comments from other staff requiring them to be raised. We will provide whichever style the City determines to be appropriate. See comments from Jeff Tarling at the end of the letter. This can be a Condition of Approval.

The utility plan shows 3 water lines, which I'm sure is just a drafting error. But this should be corrected.

This is not an error. There are two existing fire services on Preble, which will be maintained, and one new domestic service to be installed on Preble. The existing domestic water service on Congress Street will be abandoned per PWD requirements.

How is rooftop runoff managed? We prefer it to be connected into the sewer separately from the sanitary waste on site in anticipation of future separation.

There is an existing storm drain lateral at the rear of the building that will remain in service for the roof drains.

It may be helpful to see a demolition plan, which will answer the following questions.

There are demolition notes indicated on the plans where needed.

Where is/are the existing water line(s) and how will they be capped?

The existing domestic water service is shown on the Utility Plan on Congress Street. Per PWD, the 4" valve will be removed at the main (C-202).

Where is/are existing sewer line(s) and how will they be capped?

The existing sewer service is located to the rear of the building and is shown on the Utility Plan C-202. This line will remain in service, and a second line is being added to Preble Street. No sewer lines are proposed to be capped.

All details / detail sheets should be revisited: duplicate details should be removed; details should be consistent with the City's Technical Standards; details not applicable to this project should be removed.

The detail sheets have been updated.

E. City Arborist Comments – Jeff Tarling

July 22, 2021

Street trees - We would like to see raised granite tree wells similar to those nearby near the Public Library. We can discuss exact locations and sizes.

Off Site trees - Trees are needed across the street, similar to the offsite tree and landscape work



that nearby One Monument Square project donated to Monument Square tree replacement and raised granite tree planters, we could use similar trees at Monument Way towards One City Center.

Overall, the current, already constructed streetscape does not present much room in the way of supporting additional trees or landscape. Project contribution to needed trees and the landscape across the street would be a welcomed addition.

Parks & Recreation is willing to work with the development team on this aspect.

The applicant is committed to working with the City Arborist during the Construction Document phase to locate the tree wells and use the appropriate planter details. This does not significantly impact the site design and can be addressed as a Condition of Approval.

July 29, 2021

In areas we have on street parking we space the tree planting locations between the potential car parking spaces and lower the raised curb height to 4". We can work with the project team to identify the parking spots and best places to plant a tree.

The applicant is committed to working with the City Arborist during the Construction Document phase to locate the tree wells and use the appropriate planter details. This does not significantly impact the site design and can be addressed as a Condition of Approval.

Additional Information Provided

Please find attached lighting cutsheets and photometric plan.

If you have any questions or require additional information, please do not hesitate to contact me at 207-558-3662 or email me at dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN, INC.

Darrin Stairs, PE
Project Manager

cc: Marieke Thormann, Fathom Companies
David Lloyd, Archetype Architects
Jenn Connelly - VHB

Attachments:

- Response to Comments Memorandum, VHB, Dated July 30, 2021
- Time & Temperature Hotel Entrance Letter, Archetype, July 30, 2021
- Time & Temperature Hotel Entrance Letter, MacRostie Historic Advisors, August 2, 2021
- Time & Temperature Valet Services Letter, Oxford Hotels, August 2, 2021.
- Revised C-201 Grading Plan (uploaded separately to Eplan)
- Revised C-202 Utility Plan (uploaded separately to Eplan)



- Revised C-300, C-301, C-302 Civil Detail Sheets (uploaded separately to Eplan)
- Lighting Cutsheets
- Photometrics Plan

PN: 232868.00

To: City of Portland

Date: July 30, 2021

Project #: 55321.01

From: Jennifer Conley, PE, PTOE
Karen Sentoff, EIT

Re: Time and Temperature Building
477 Congress Street
Response to Comments

VHB prepared a Traffic Memorandum regarding the anticipated redevelopment of the Time and Temperature Building dated May 21, 2021 (Traffic Memo). We are in receipt of the review comments from the City of Portland's Department of Public Works and their traffic consultant. Specifically, an email dated July 21, 2021, was received from Tom Errico. Responses to those comments are provided below. An abbreviated summary of each comment is also offered for reference.

Actual count data should be provided and verified via Streetlight data.

The actual count data is provided attached to this memorandum. VHB obtained Streetlight data for the area and has included Streetlight AADT information as well as percentages of turning movements at each intersection. The data was plotted on a diagram that also includes the percentages and traffic volumes based on INRIX data as well as the actual count data. This diagram is provided in the Appendix.

Existing retail trip generation seems high

Although the Traffic Memo based the trip generation of the retail space on industry standard rates, it is true that in a dense urban area such as the site that many trips are made by modes other than vehicular. A review of available data on mode shares in this area reveals that City of Portland Plan refers to a work trip rate of only 36% of trips being made by automobile. VHB adjusted the trips associated with retail space to be consistent with this mode share. The resulting trip generation information is shown in Table 1.

As indicated above, the office and retail space on the site was recently occupied. The trip generation of the office space was calculated using Land Use Code (LUC) 710, Office (Dense Multi-Use Urban). The trip generation of the retail space was based on LUC 820, Shopping Center. The trip generation for the bank space on LUC 911, Walk In Bank, which only had data for the PM peak hour. The resulting trip generation associated with the current or recent land uses is provided in **Table 1**.

Table 1. Revised Trip Generation – Current or Recent Uses

		Office Building ¹	Retail Annex ²	Bank ³	Total Trips
Weekday AM peak	Enter	95	10	-	105
	Exit	16	6	-	22
	Total	111	16	-	127
Weekday PM peak	Enter	19	33	14	66
	Exit	92	36	18	146
	Total	111	69	32	212

¹123,000 square feet of LUC 710 (Dense Multi-Use Urban)

²50,000 square feet of LUC 820 adjusted for Portland plan mode share of 36% vehicle trips

³2,600 square feet of LUC 911

As shown in Table 1, the site generated the most trips during the weekday PM peak hour when 212 trips entered/exited the site. During the weekday AM peak hour, 127 trips entered/exited the site.

Trip generation of the proposed redevelopment should include trip generation for the rooftop bar space.

In response to the request, although the rooftop space will be seasonal, the trip generation was determined. Because the rooftop bar is anticipated to be a high end establishment that will serve some food and drinks, VHB developed a trip generation calculation for the rooftop bar space using LUC 931, Quality Restaurant. Because this facility will not be open during the AM peak period, no trips were assigned during the AM peak hour. In addition, to be consistent with the existing trip generation calculations for retail space, the retail trip rate continued to be calculated by LUC 820, Shopping Center with a local adjustment.

The resulting trip generation of the proposed site was determined and is presented in **Table 2**. As shown, the proposed site is anticipated to generate 127 and 197 trips respectively during the weekday AM and PM peak hours.

Table 2. Revised Trip Generation – Proposed Uses

		Hotel ¹	Retail ²	Restaurant ³	Rooftop ⁴	Total Trips
Weekday AM peak	Enter	53	1	19		73
	Exit	37	1	16	0	54
	Total	90	2	35	0	127
Weekday PM peak	Enter	60	3	21	27	111
	Exit	57	3	13	13	86
	Total	117	6	34	40	197

¹ 190 rooms of LUC 310

² 4,700 square feet of LUC 820 adjusted for Portland plan mode share of 36% vehicle trips

³ 3,500 square feet of LUC 932

⁴ 5,100 square feet of LUC 931 (not anticipated to be open during AM hours)

The net trip generation of the site was calculated and is illustrated in **Table 3** below. The net trip generation of the redevelopment was calculated by comparing the trips recently generated by the site with those anticipated to be generated by the redeveloped site.

Table 3. Revised Net Trip Generation

		Existing Site	Proposed Site	Net Trips
Weekday AM peak	Enter	105	73	-32
	Exit	22	54	+32
	Total	127	127	+0
Weekday PM peak	Enter	66	111	+45
	Exit	146	86	-60
	Total	212	197	-15

Based on the trips determined above, the redeveloped site will generate the same amount of trips during the weekday AM peak hour as the recent uses on the site and 15 fewer trips during the weekday PM peak hour than the recent land use. As shown, the redevelopment will not require a MaineDOT Traffic Movement Permit.

Trip Assignment should be illustrated for the hotel and retail/restaurant land uses separately and the assumptions regarding valet and self-park presented.

The projected new trips outlined above were distributed on the study area roadways based on the assumptions outlined in the Traffic Memo. For the hotel use, all trips were assigned to the valet operation which presents a worst-case scenario in regard to impact due to the circulating vehicles and are illustrated in **Figure 1** and **Figure 2**. For the retail and restaurant uses, to be conservative, 50 percent of traffic was assigned to use the valet operation and the remaining 50 percent was assigned to on street or garage parking along area roadways. Those trips are illustrated in **Figure 3** and **Figure 4**.

Figure 1. Hotel Trips for AM Peak Hour

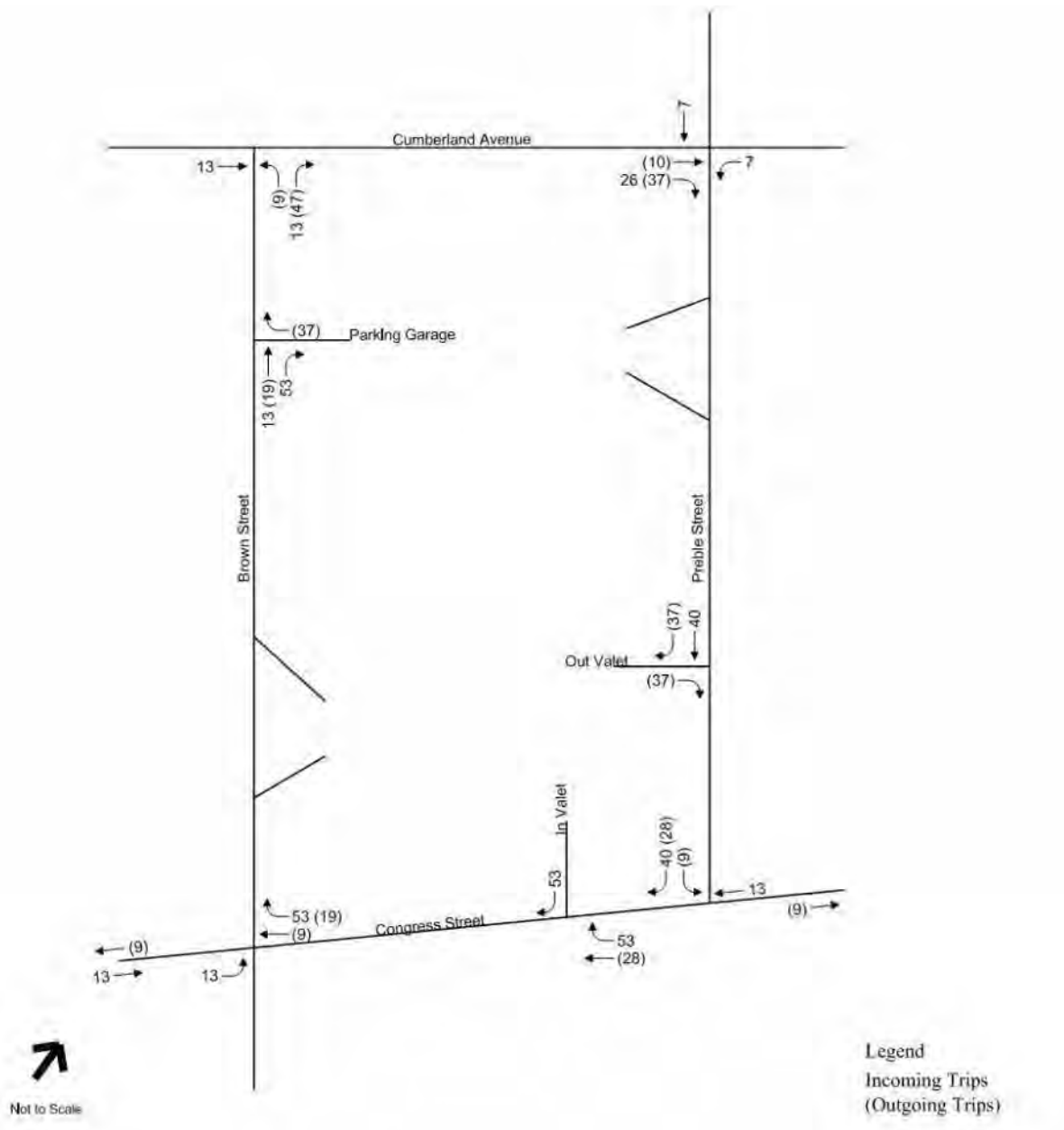


Figure 2. Hotel Trips for PM Peak Hour

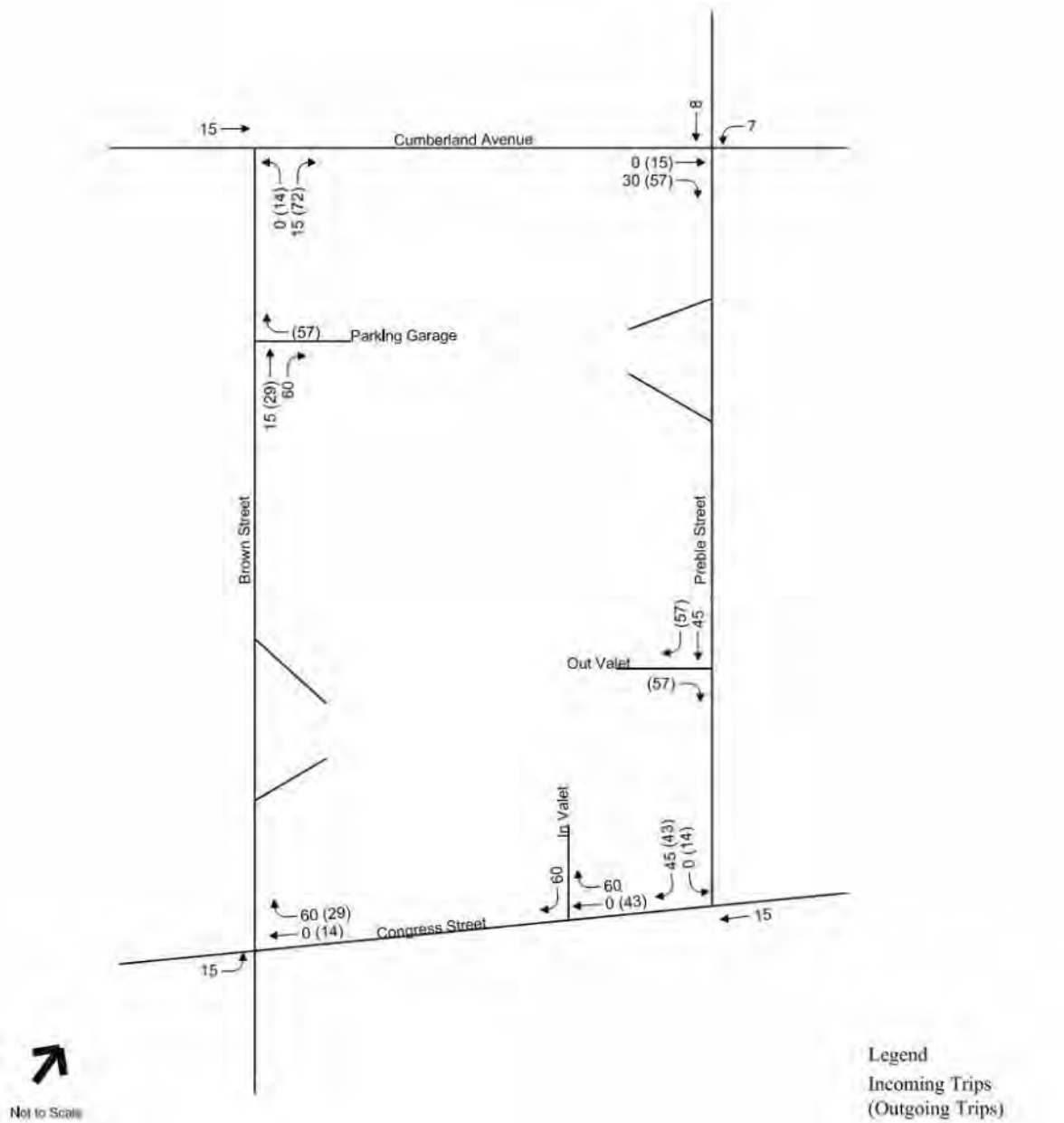


Figure 3. Retail and Restaurant Trips for AM Peak Hour

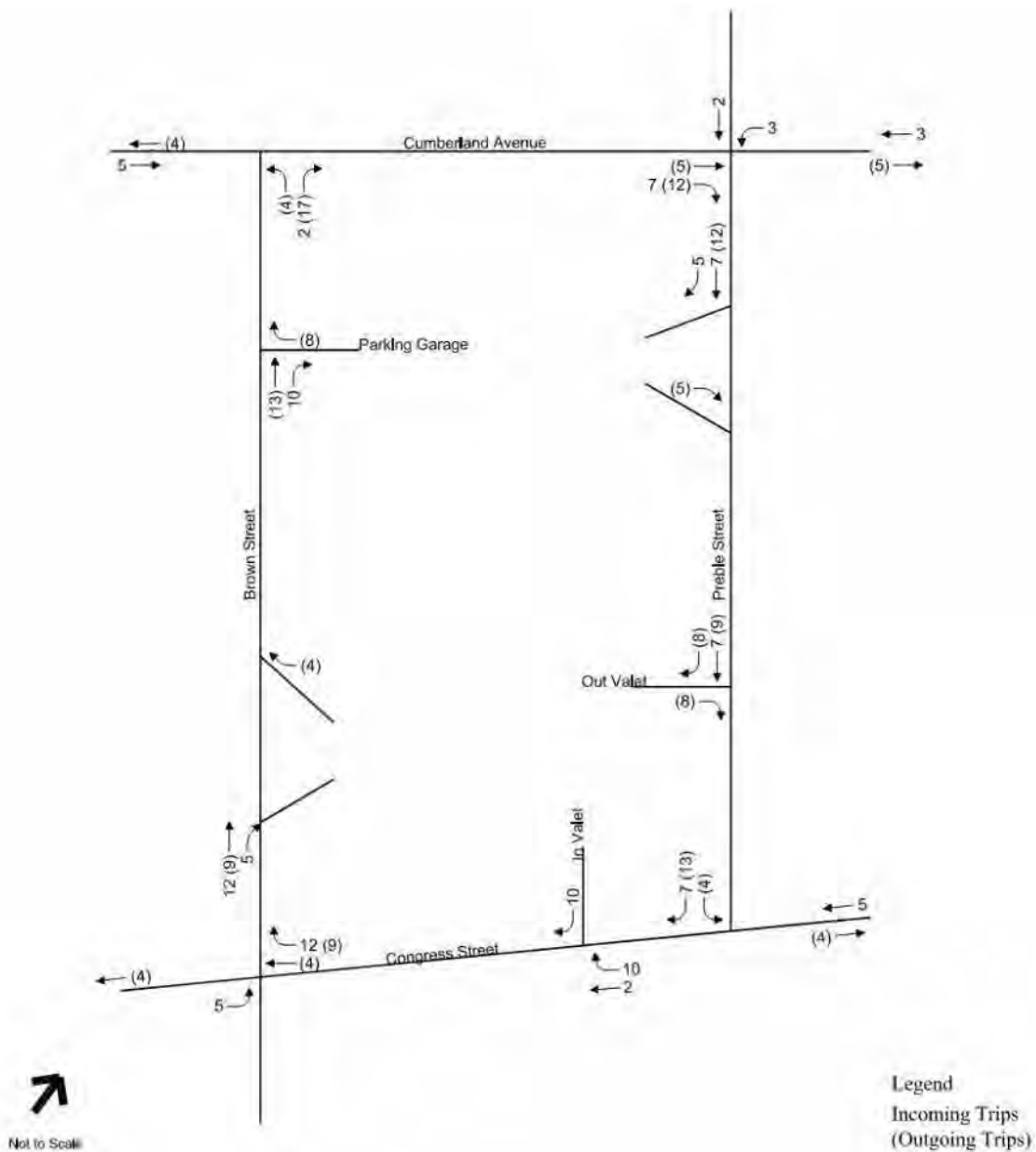
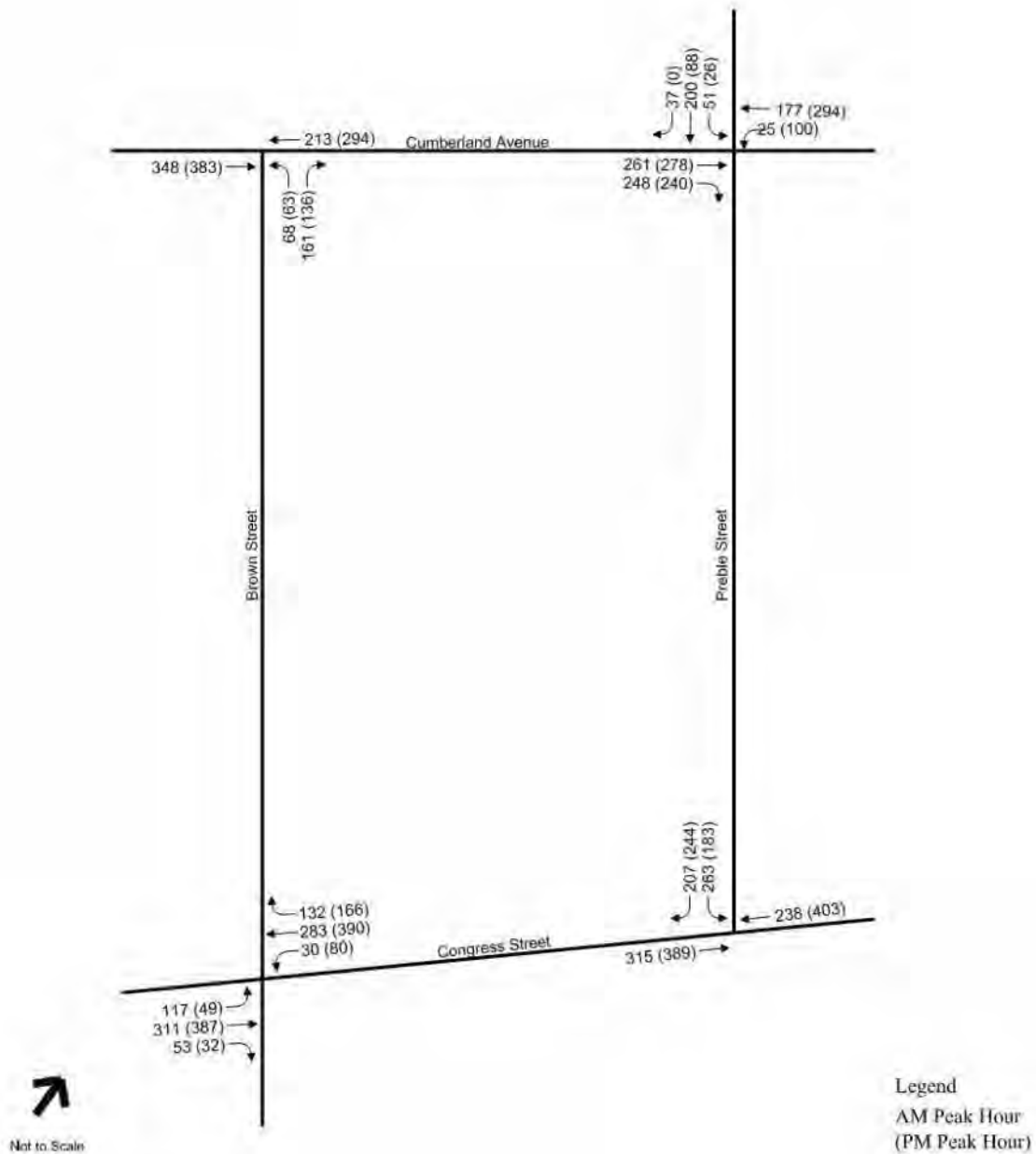


Figure 4. Retail and Restaurant Trips for PM Peak Hour



The revised 2026 Build traffic volumes for the weekday morning and evening peak hours are shown in **Figure 5**.

Figure 5. Build Condition Peak Hour Traffic Volumes



Traffic Operations Analysis

The operation analysis of the area intersections was revised to reflect the revised Build condition traffic volumes. **Table 4** summarizes the operational analysis at the signalized study area intersections during the weekday AM and PM peak hours under 2021 existing conditions and 2026 No Build and Build conditions. The levels of service remain consistent with the LOS results provided in the Traffic Memo. As shown, the intersections are projected to operate at LOS B or better during the peak hours.

Table 4: 2026 Signalized Intersection Operations

Intersection Peak Hour	2021 Existing			2026 No Build			2026 Build		
	v/c ⁺	Delay*	LOS **	v/c ⁺	Delay*	LOS **	v/c ⁺	Delay*	LOS **
Cumberland Avenue at Preble Street									
AM Peak Hour	0.50	9.7	A	0.51	10.1	B	0.57	11.4	B
PM Peak Hour	0.48	6.8	A	0.50	6.9	A	0.54	8.7	A
Congress Street at Preble Street									
AM Peak Hour	0.56	8.4	A	0.58	8.7	A	0.59	8.8	A
PM Peak Hour	0.55	7.1	A	0.56	8.3	A	0.59	8.8	A

⁺ Volume to capacity ratio

* Delay expressed in seconds per vehicle

** Level of Service

Table 5 summarizes the operational analysis at the unsignalized study area intersections during the weekday AM and PM peak hours. The projected average delays are only projected to increase by two seconds during the AM and PM peak periods.

The Brown Street intersection with Congress Street does not have any side street approach traffic to assess the operations of the intersection. Since the north and south legs of the intersection are one-way away from the intersection, the only conflicting movements are the Congress Street left turns. These movements are projected to operate efficiently during the weekday AM and PM peak hours under 2021 existing and future 2026 No-Build and Build conditions with minimal delays.

Table 5: 2026 Unsignalized Intersection Operations

Intersection Peak Hour	Critical Movement	2021 Existing				2026 No Build				2026 Build			
		Demand	Delay*	LOS**	Q	Demand	Delay*	LOS	Q	Demand	Delay*	LOS	Q
Cumberland Avenue at Brown Street													
AM Peak Hour	NB	142	12.9	B	23	149	13.4	B	26	249	15.5	C	52
PM Peak Hour	NB	53	13.8	B	10	56	14.3	B	11	214	16.3	C	48

* Delay expressed in seconds per vehicle

** Level of Service

*** 95th percentile queue length, feet

The traffic operations analysis should be field verified

On July 29, 2021, VHB observed the operations at the intersection of Congress Street and Preble Street. During the 4:25 to 4:45 pm time period, the vehicular queues were noted on all approaches. As provided in the Appendix, the queue was measured every minute during that time period and found to average a single vehicle on each approach. The maximum queues noted were 140 feet westbound on Congress Street, 80 feet eastbound on Congress Street and 120 feet on Preble Street. These queues cleared during each signal phase. The observed queues were longer westbound on Congress Street (Synchro had 113 feet) and southbound on Preble (Synchro had 63 feet), but shorter eastbound on Congress Street (Synchro had 118 feet). A spot traffic volume count was taken from 4:00 to 4:15 PM which showed traffic volumes approximately 20% lower than the data analyzed in the Synchro.

Conclusions

The information requested by the City's Traffic Consultant has been collected and analyzed. We are happy to meet with the City and the Traffic Consultant to discuss any of these issues.

Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1998

Location: Portland, ME
Counter: Trey
Board: 1
Weather: Clear

File Name : AM Congress-Preble
Site Code : 3246
Start Date : 7/31/2018
Page No : 1

Groups Printed- Passenger Cars - unit Trucks - Large Trucks

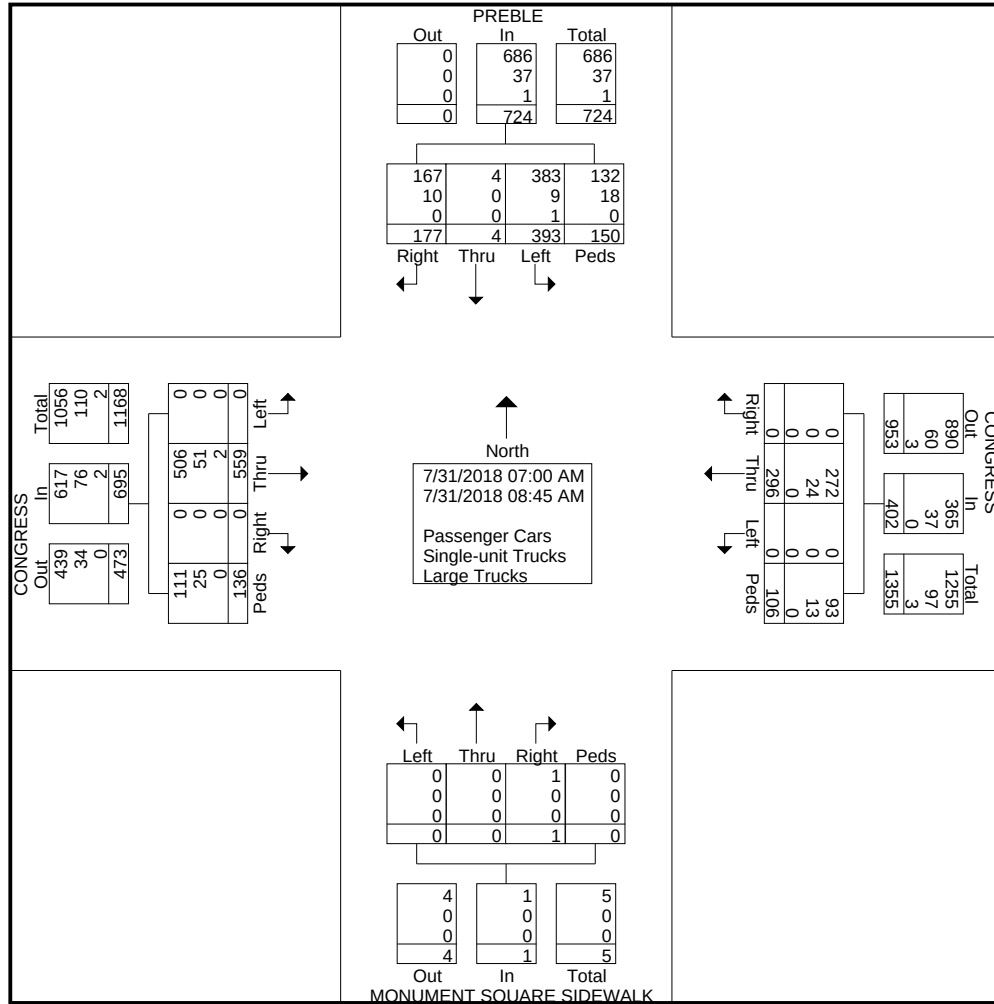
	PREBLE From North					CONGRESS From East					MONUMENT SQUARE SIDEWALK From South					CONGRESS From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	13	0	23	16	52	0	22	0	8	30	0	0	0	0	0	0	42	0	13	55	137
07:15 AM	12	0	35	11	58	0	23	0	5	28	0	0	0	0	0	0	46	0	15	61	147
07:30 AM	21	0	42	16	79	0	32	0	12	44	0	0	0	0	0	0	70	0	13	83	206
07:45 AM	21	0	46	21	88	0	44	0	13	57	0	0	0	0	0	0	82	0	21	103	248
Total	67	0	146	64	277	0	121	0	38	159	0	0	0	0	0	0	240	0	62	302	738
08:00 AM	30	2	56	24	112	0	37	0	17	54	0	0	0	0	0	0	89	0	15	104	270
08:15 AM	31	0	72	18	121	0	41	0	18	59	1	0	0	0	1	0	80	0	12	92	273
08:30 AM	28	1	48	24	101	0	46	0	14	60	0	0	0	0	0	0	71	0	23	94	255
08:45 AM	21	1	71	20	113	0	51	0	19	70	0	0	0	0	0	0	79	0	24	103	286
Total	110	4	247	86	447	0	175	0	68	243	1	0	0	0	1	0	319	0	74	393	1084
Grand Total	177	4	393	150	724	0	296	0	106	402	1	0	0	0	1	0	559	0	136	695	1822
Apprch %	24.4	0.6	54.3	20.7		0	73.6	0	26.4		100	0	0	0		0	80.4	0	19.6		
Total %	9.7	0.2	21.6	8.2	39.7	0	16.2	0	5.8	22.1	0.1	0	0	0	0.1	0	30.7	0	7.5	38.1	
Passenger Cars	167	4	383	132	686	0	272	0	93	365	1	0	0	0	1	0	506	0	111	617	1669
% Passenger Cars																					
Single-unit Trucks	10	0	9	18	37	0	24	0	13	37	0	0	0	0	0	0	51	0	25	76	150
% Single-unit Trucks	5.6	0	2.3	12	5.1	0	8.1	0	12.3	9.2	0	0	0	0	0	0	9.1	0	18.4	10.9	8.2
Large Trucks	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
% Large Trucks	0	0	0.3	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0.3	0.2

Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1998

Location: Portland, ME
Counter: Trey
Board: 1
Weather: Clear

File Name : AM Congress-Preble
Site Code : 3246
Start Date : 7/31/2018
Page No : 2

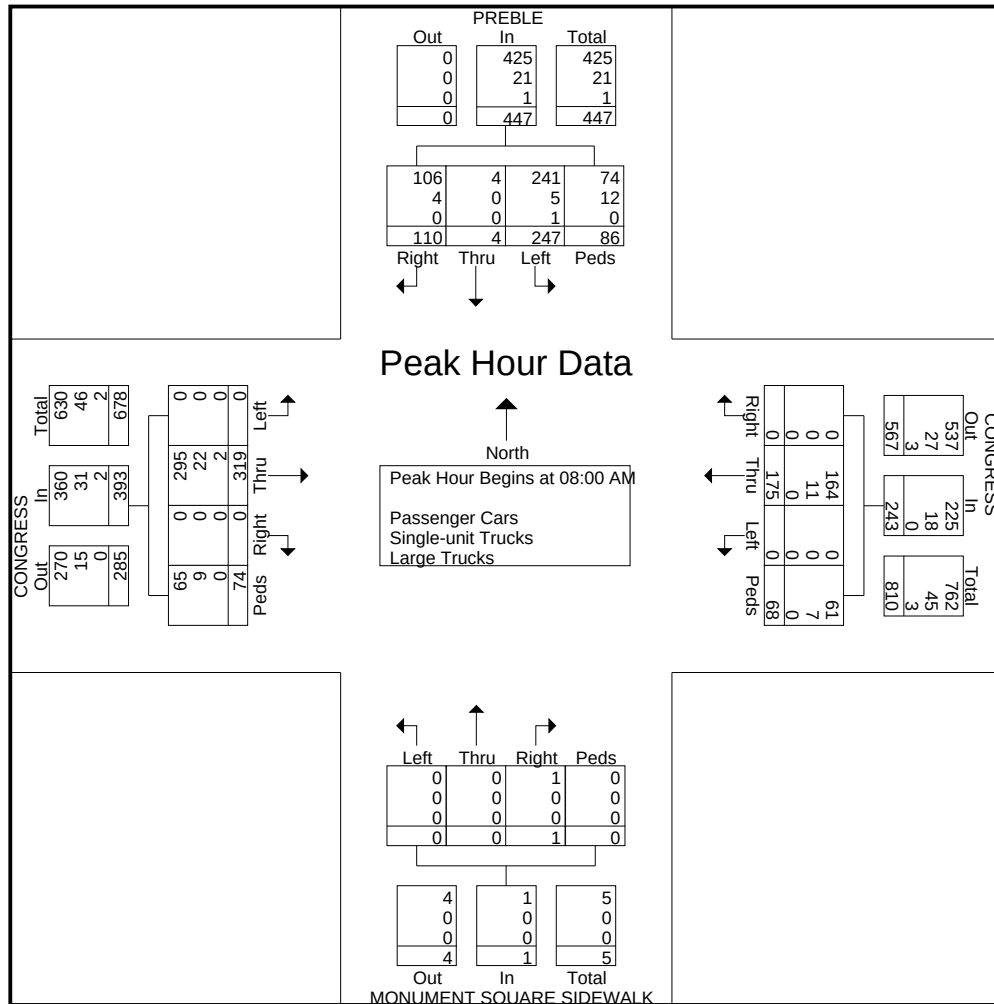


	PREBLE From North					CONGRESS From East					MONUMENT SQUARE SIDEWALK From South					CONGRESS From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	30	2	56	24	112	0	37	0	17	54	0	0	0	0	0	0	89	0	15	104	270
08:15 AM	31	0	72	18	121	0	41	0	18	59	1	0	0	0	1	0	80	0	12	92	273
08:30 AM	28	1	48	24	101	0	46	0	14	60	0	0	0	0	0	0	71	0	23	94	255
08:45 AM	21	1	71	20	113	0	51	0	19	70	0	0	0	0	0	0	79	0	24	103	286
Total Volume	110	4	247	86	447	0	175	0	68	243	1	0	0	0	1	0	319	0	74	393	1084
% App. Total	24.6	0.9	55.3	19.2		0	72	0	28		100	0	0	0		0	81.2	0	18.8		
PHF	.887	.500	.858	.896	.924	.000	.858	.000	.895	.868	.250	.000	.000	.000	.250	.000	.896	.000	.771	.945	.948
Passenger Cars	106	4	241	74	425	0	164	0	61	225	1	0	0	0	1	0	295	0	65	360	1011
% Passenger Cars																					
Single-unit Trucks	4	0	5	12	21	0	11	0	7	18	0	0	0	0	0	0	22	0	9	31	70
% Single-unit Trucks	3.6	0	2.0	14.0	4.7	0	6.3	0	10.3	7.4	0	0	0	0	0	0	6.9	0	12.2	7.9	6.5
Large Trucks	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
% Large Trucks	0	0	0.4	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.5	0.3

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1998

Location: Portland, ME
Counter: Trey
Board: 1
Weather: Clear

File Name : AM Congress-Preble
Site Code : 3246
Start Date : 7/31/2018
Page No : 3



Gorrill Palmer
707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1998

Location: Portland, ME
Counter: Trey
Board: 1
Weather: Clear

File Name : PM Congress-Preble
Site Code : 3246
Start Date : 7/31/2018
Page No : 1

Groups Printed- Passenger Cars - unit Trucks - Large Trucks

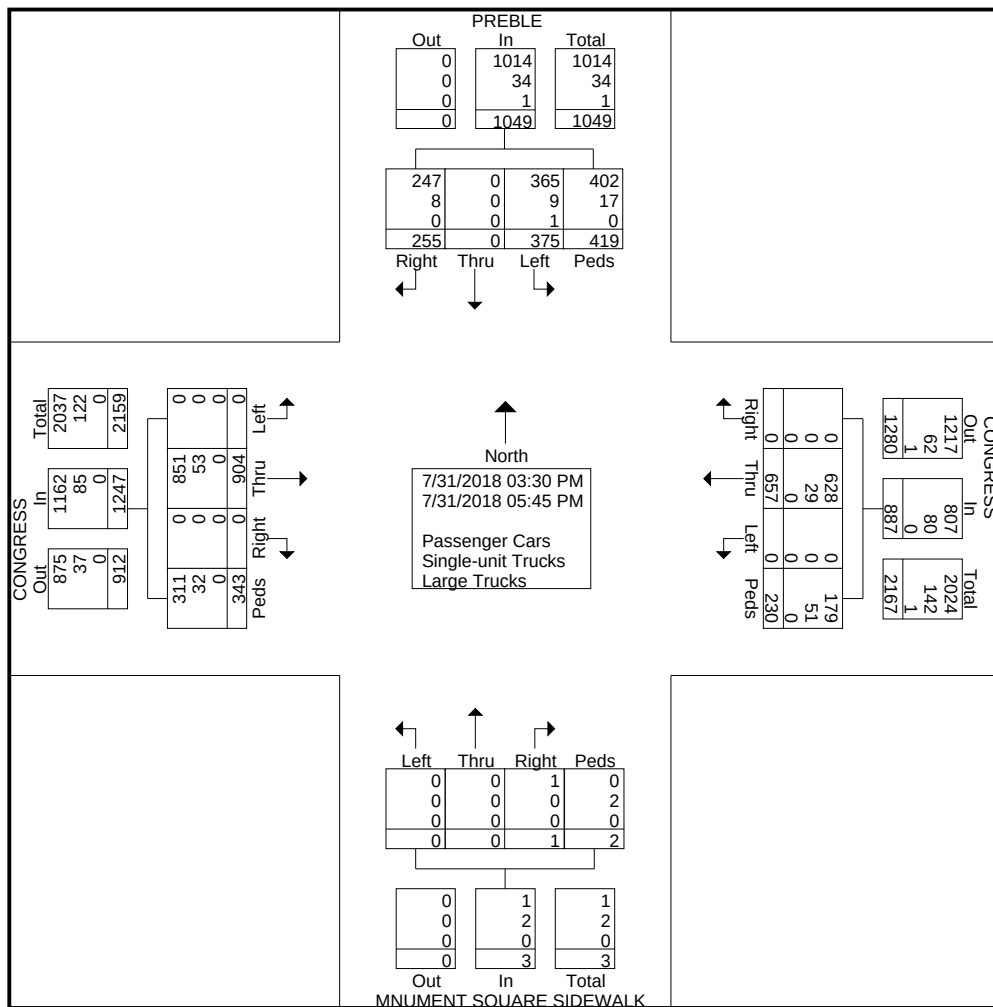
	PREBLE From North					CONGRESS From East					MNUMENT SQUARE SIDEWALK From South					CONGRESS From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	26	0	37	56	119	0	64	0	14	78	0	0	0	0	0	0	80	0	36	116	313
03:45 PM	20	0	34	36	90	0	70	0	20	90	0	0	0	0	0	0	94	0	37	131	311
Total	46	0	71	92	209	0	134	0	34	168	0	0	0	0	0	0	174	0	73	247	624
04:00 PM	22	0	35	33	90	0	60	0	28	88	1	0	0	0	1	0	100	0	32	132	311
04:15 PM	23	0	30	54	107	0	69	0	12	81	0	0	0	0	0	0	93	0	28	121	309
04:30 PM	27	0	39	40	106	0	68	0	35	103	0	0	0	1	1	0	108	0	36	144	354
04:45 PM	23	0	51	51	125	0	68	0	17	85	0	0	0	1	1	0	89	0	33	122	333
Total	95	0	155	178	428	0	265	0	92	357	1	0	0	2	3	0	390	0	129	519	1307
05:00 PM	39	0	42	43	124	0	69	0	41	110	0	0	0	0	0	0	93	0	31	124	358
05:15 PM	33	0	38	36	107	0	68	0	23	91	0	0	0	0	0	0	101	0	36	137	335
05:30 PM	20	0	34	34	88	0	62	0	19	81	0	0	0	0	0	0	71	0	38	109	278
05:45 PM	22	0	35	36	93	0	59	0	21	80	0	0	0	0	0	0	75	0	36	111	284
Total	114	0	149	149	412	0	258	0	104	362	0	0	0	0	0	0	340	0	141	481	1255
Grand Total	255	0	375	419	1049	0	657	0	230	887	1	0	0	2	3	0	904	0	343	1247	3186
Apprch %	24.3	0	35.7	39.9		0	74.1	0	25.9		33.3	0	0	66.7		0	72.5	0	27.5		
Total %	8	0	11.8	13.2	32.9	0	20.6	0	7.2	27.8	0	0	0	0.1	0.1	0	28.4	0	10.8	39.1	
Passenger Cars	247	0	365	402	1014	0	628	0	179	807	1	0	0	0	1	0	851	0	311	1162	2984
% Passenger Cars																					
Single-unit Trucks	8	0	9	17	34	0	29	0	51	80	0	0	0	2	2	0	53	0	32	85	201
% Single-unit Trucks	3.1	0	2.4	4.1	3.2	0	4.4	0	22.2	9	0	0	0	100	66.7	0	5.9	0	9.3	6.8	6.3
Large Trucks	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Large Trucks	0	0	0.3	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1998

Location: Portland, ME
Counter: Trey
Board: 1
Weather: Clear

File Name : PM Congress-Preble
Site Code : 3246
Start Date : 7/31/2018
Page No : 2



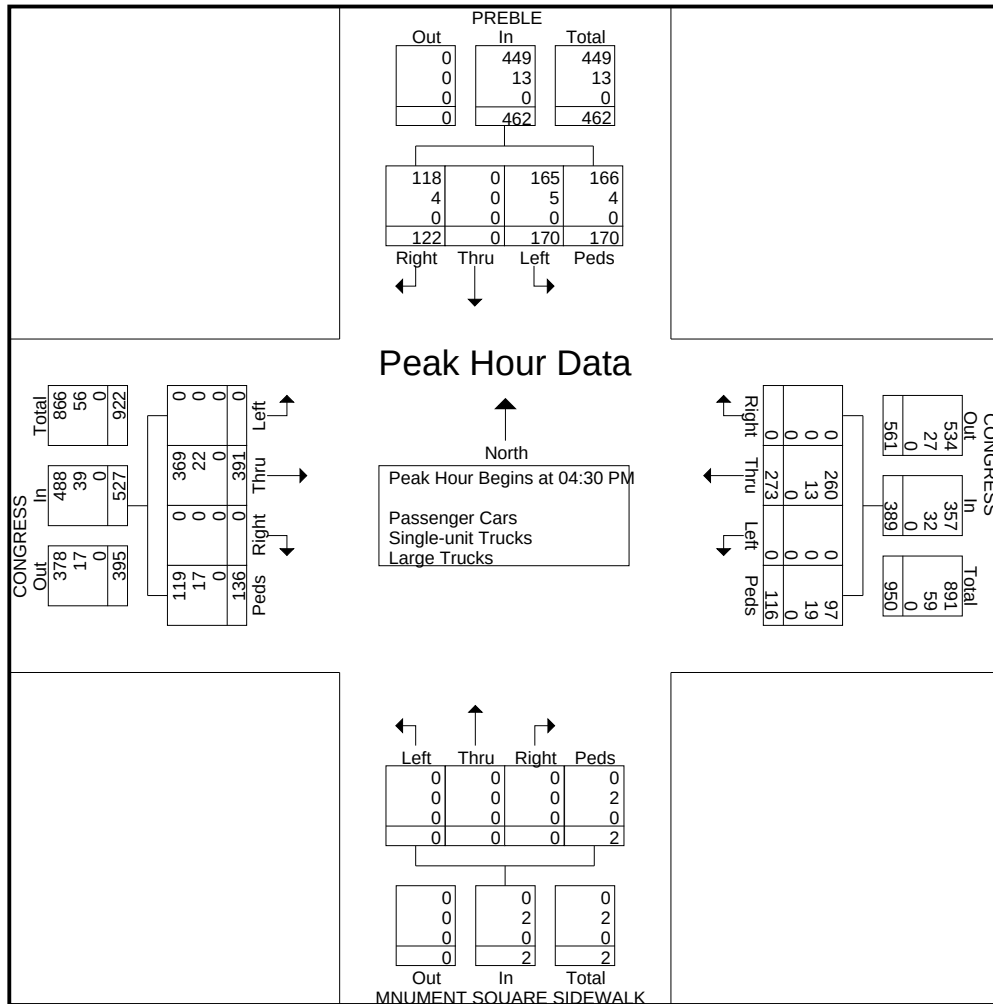
	PREBLE From North					CONGRESS From East					MNUMENT SQUARE SIDEWALK From South					CONGRESS From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	27	0	39	40	106	0	68	0	35	103	0	0	0	1	1	0	108	0	36	144	354
04:45 PM	23	0	51	51	125	0	68	0	17	85	0	0	0	1	1	0	89	0	33	122	333
05:00 PM	39	0	42	43	124	0	69	0	41	110	0	0	0	0	0	0	93	0	31	124	358
05:15 PM	33	0	38	36	107	0	68	0	23	91	0	0	0	0	0	0	101	0	36	137	335
Total Volume	122	0	170	170	462	0	273	0	116	389	0	0	0	2	2	0	391	0	136	527	1380
% App. Total	26.4	0	36.8	36.8		0	70.2	0	29.8		0	0	0	100		0	74.2	0	25.8		
PHF	.782	.000	.833	.833	.924	.000	.989	.000	.707	.884	.000	.000	.000	.500	.500	.000	.905	.000	.944	.915	.964
Passenger Cars	118	0	165	166	449	0	260	0	97	357	0	0	0	0	0	0	369	0	119	488	1294
% Passenger Cars																					
Single-unit Trucks	4	0	5	4	13	0	13	0	19	32	0	0	0	2	2	0	22	0	17	39	86
% Single-unit Trucks	3.3	0	2.9	2.4	2.8	0	4.8	0	16.4	8.2	0	0	0	100	100	0	5.6	0	12.5	7.4	6.2
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

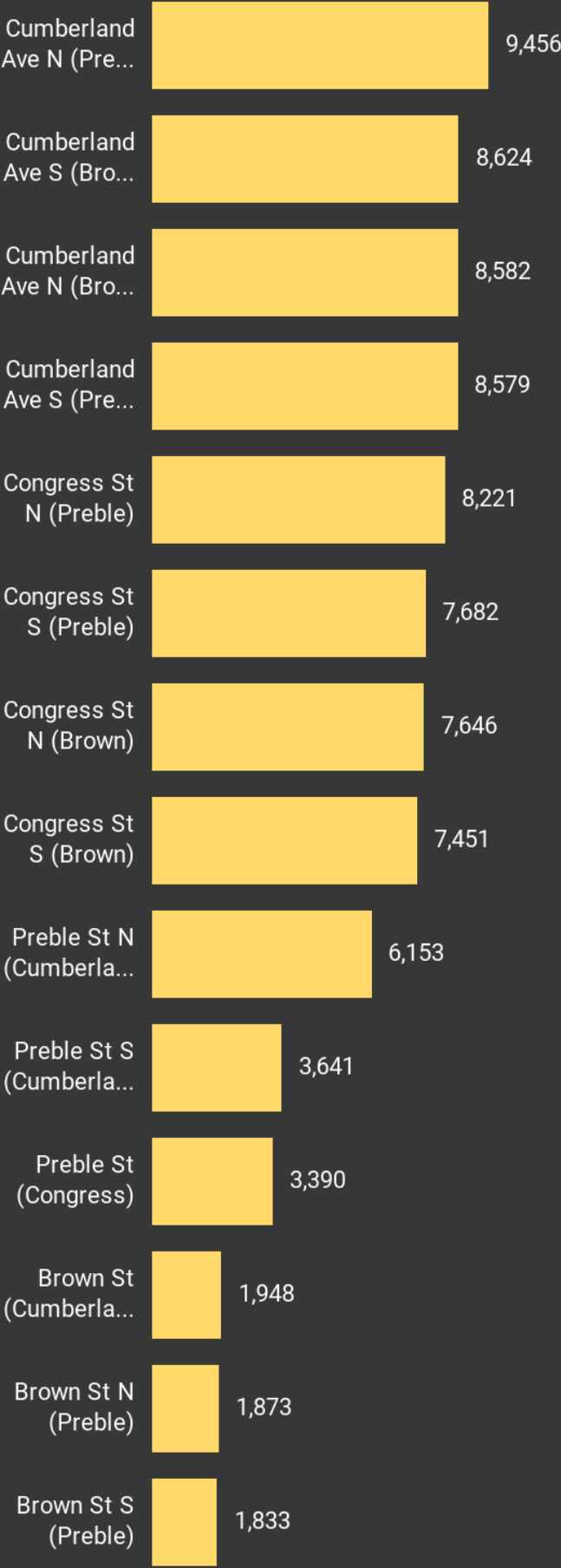
Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1998

Location: Portland, ME
Counter: Trey
Board: 1
Weather: Clear

File Name : PM Congress-Preble
Site Code : 3246
Start Date : 7/31/2018
Page No : 3





Time Controls

Day Types

Weekday (M-F)

Day Parts

Custom Range

StL Peak Hours

Traffic Flow

Flow

Total Traffic

Zone Selection

Intersections

Preble (Cumberland)

Metric Controls

Measurement

Percentage

Map Layers

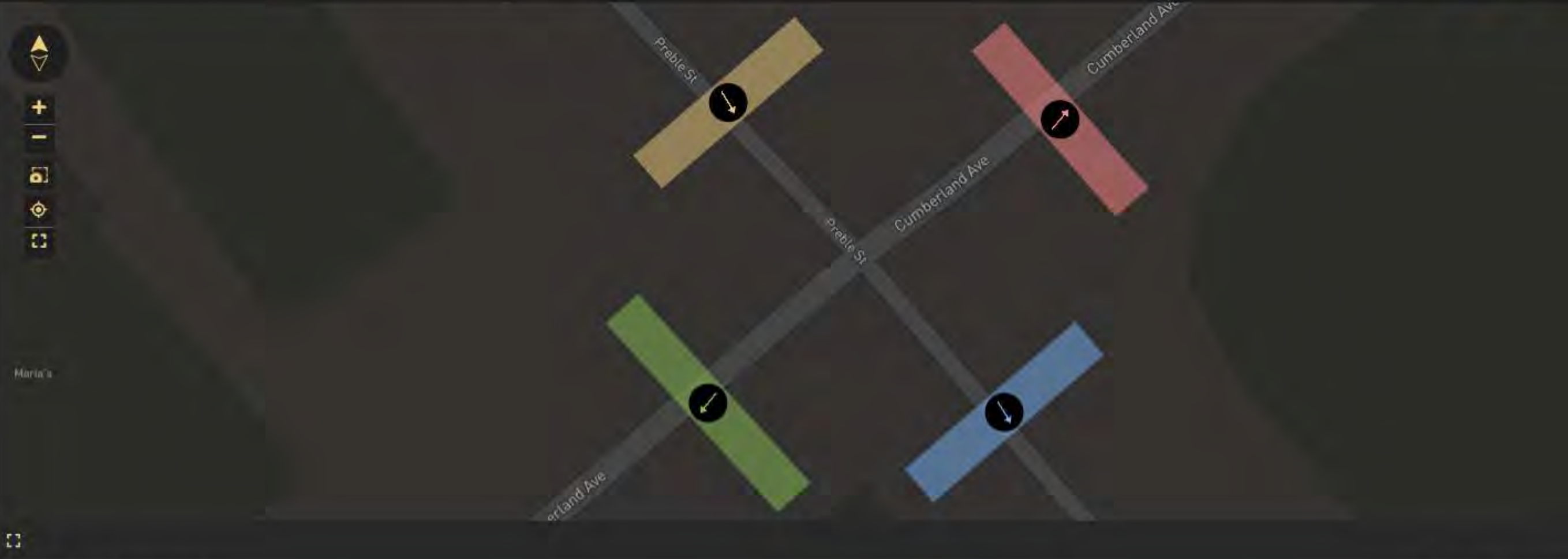
Legend

Labels

Gates

Unselected Zones

Base



Traffic Flow

Percentage

Chart Type

Diagram

						Cumberland Ave SB N (Preble)								
						In	Total	Out						
						0.00%	N/A	45.54%						
						Right	Thru	Left						
						0.00%	0.00%	0.00%						
↖	↓	↘				↖	0.00%	Right	0.00%	In	Preble St EB (Cumberland)			
Out	0.00%	Left	45.54%	↗	←	0.00%	Thru	N/A	Total					
Total	N/A	Thru	46.23%	→	↖	0.00%	Left	46.23%	Out					
In	100.00%	Right	8.24%	↘										
						↖	↑	↗						
						0.00%	0.00%	0.00%						
						Left	Thru	Right						
						8.24%	N/A	0.00%						
						Out	Total	In						
						Cumberland Ave SB S (Preble)								

Visualization / BMD Portland T-T Turning Cumberland/Preble 4

TYPE

Turning Movement Counts

ADD-ONS

None

MODE OF TRAVEL

All Vehicles

Help

Time Controls

Day Types

select all

Weekday (M-F) x

Day Parts

Custom Range

All (52)

STL Peak Hours

Traffic Flow

Flow

Total Traffic

Zone Selection

Intersections

select

Cumberland SB (Preble) x

Metric Controls

Measurement

Percentage

Map Layers

Legend

Labels

Gates

Unselected Zones

Base

Portland St

Preble St

Cumberland Ave

Maria's

Traffic Flow

Percentage

Chart Type

Diagram

Preble St EB (Cumberland)

Out

0.00%

Left

0.00%

Total

N/A

Thru

0.00%

In

0.03%

Right

0.03%

Cumberland Ave SB N (Preble)

In

Total

Out

99.97%

N/A

0.00%

Right

Thru

Left

0.00%

87.03%

12.94%

↵

↓

↘

↵

↑

↗

0.00%

0.00%

0.00%

Left

Thru

Right

87.06%

N/A

0.00%

Out

Total

In

Cumberland Ave SB S (Preble)

↵

0.00%

Right

0.00%

In

Preble St EB (Cumberland)

←

0.00%

Thru

N/A

Total

↵

0.00%

Left

12.94%

Out

Page 587

Time Controls

Day Types

select all

Weekday (M-F) x | v

Day Parts

Custom Range All (52) >

StL Peak Hours ⓘ >

Traffic Flow

Flow

Total Traffic | v

Zone Selection

Intersections

select

Cumberland NB (Preble) x | v

Metric Controls

Measurement

Percentage | v

Map Layers

Legend

Labels

Gates

Unselected Zones

Base



Traffic Flow

Percentage

Chart Type

Diagram



						Cumberland Ave NB N (Preble)											
						In	Total	Out									
						0.00%	N/A	82.05%									
						Right	Thru	Left									
						0.00%	0.00%	0.00%									
↙	↓	↘							↖	0.00%	Right	0.00%	In	Preble St EB E (Cumberland)	↖		
Preble St EB W (Cumberland)	Out	0.00%	Left	0.00%	↗		←	0.00%	Thru	N/A	Total						
	Total	N/A	Thru	0.00%	→		↙	0.00%	Left	17.95%	Out						
						↖	↑	↗									
						0.00%	82.05%	17.95%									
						Left	Thru	Right									
						0.00%	N/A	100.00%									
						Out	Total	In									
						Cumberland Ave NB S (Preble)											



TYPE
Turning Movement Counts

ADD-ONS
None

MODE OF TRAVEL
All Vehicles

Help

Time Controls

Day Types [select all](#)

Weekday (M-F) x

Day Parts

☒ Custom Range All (52) >

StL Peak Hours ⓘ ➤

▼ Traffic Flow

Flow

Total Traffic

Zone Selection

intersections select

Cumberland/Brown

▼ Metric Controls

Measurement

Percentage | ▾

Map Layers

Legend Labels

 Gates

 Unselected Zones

Base



22

Traffic Flow

Percentage

Chart Type

Diagram

						Cumberland Ave NB								
						In	Total	Out						
						0.00%	N/A	43.71%						
						Right	Thru	Left						
						0.00%	0.00%	0.00%						
						↶	↓	↷						
West	Out	0.00%	Left	0.00%	↶				↶	43.71%	Right	100.00%	In	Brown St
	Total	N/A	Thru	0.00%	→				←	0.00%	Thru	N/A	Total	
	In	0.00%	Right	0.00%	↷				↶	56.29%	Left	0.00%	Out	
						↶	↑	↶						
						0.00%	0.00%	0.00%						
						Left	Thru	Right						
						56.29%	N/A	0.00%						
						Out	Total	In						
						Cumberland Ave SB								

Time Controls

Day Types

Weekday (M-F)

select all

Day Parts

Custom Range

All (52)

StL Peak Hours

Traffic Flow

Flow

Total Traffic

Zone Selection

Intersections

Congress NB (Brown)

Metric Controls

Measurement

Percentage

Map Layers

Legend

Labels

Gates

Unselected-Zones

Base



Traffic Flow

Percentage

Chart Type

Diagram

						Congress St NB N (Preble)								
						In	Total	Out						
						0.00%	N/A	69.26%						
						Right	Thru	Left						
						0.00%	0.00%	0.00%						
						↶	↓	↷						
									↶	0.00%	Right	0.00%	In	East
									←	0.00%	Thru	N/A	Total	
									↶	0.00%	Left	0.00%	Out	
Preble St	Out	0.00%	Left	69.26%	↗									
	Total	N/A	Thru	0.00%	→									
	In	100.00%	Right	30.74%	↘									
				↶	↑									↗
	0.00%	0.00%	0.00%											
	Left	Thru	Right											
						30.74%	N/A	0.00%						
						Out	Total	In						
						Congress St SB S (Preble)								

Time Controls

Day Types select all

Weekday (M-F) x | v

Day Parts

☒ Custom Range

All (52) >

☐ STL Peak Hours i

>

Traffic Flow

Flow

Total Traffic | v

Zone Selection

Intersections select v

Congress SB (Brown) x | v

Metric Controls

Measurement

Percentage | v

Map Layers

☒ Legend

☒ Labels

☒ Gates

☒ Unselected Zones

< >

☒ Base

< > ⋮



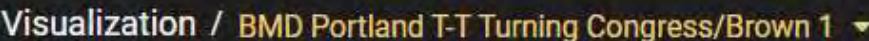
Traffic Flow

Percentage

Chart Type

Diagram

						Congress St SB N (Brown)								
						In	Total	Out						
						100.00%	N/A	0.00%						
						Right	Thru	Left						
						7.94%	81.43%	10.63%						
						↖	↓	↘						
Brown St WB	Out	7.94%	Left	0.00%	↗				↖	0.00%	Right	0.00%	In	Brown St EB
	Total	N/A	Thru	0.00%	→				←	0.00%	Thru	N/A	Total	
	In	0.00%	Right	0.00%	↘				↖	0.00%	Left	10.63%	Out	
						↖	↑	↗						
						0.00%	0.00%	0.00%						
						Left	Thru	Right						
						81.43%	N/A	0.00%						
						Out	Total	In						
						Congress St SB S (Brown)								



TYPE
Turning Movement Counts

ADD-ONS
None

MODE OF TRAVEL
All Vehicles

Help

Time Controls

Day Types [select all](#)

Weekday (M-F) x

Day Parts

☒ Custom Range All (52) >

StL Peak Hours ⓘ ➤

▼ Traffic Flow

Flow

Total Traffic 

▼ Zone Selection

intersections select 

Congress NB (Brown) x x v

▼ Metric Controls

Measurement

Percentage

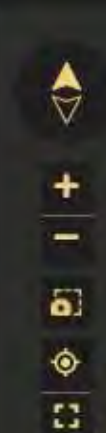
Map Layers

Legend Labels

Gates

 Unselected Zones

0 Base



Traffic Flow	Percentage
--------------	------------

Chart Type	Diagram
------------	---------

						Congress St NB S (Brown)								
						In	Total	Out						
						0.00%	N/A	83.31%						
						Right	Thru	Left						
						0.00%	0.00%	0.00%						
						↖	↓	↘						
Brown St WB	Out	4.64%	Left	0.00%	↗				↖	0.00%	Right	0.00%	In	Brown St EB
	Total	N/A	Thru	0.00%	→				←	0.00%	Thru	N/A	Total	
	In	0.00%	Right	0.00%	↘				↖	0.00%	Left	12.05%	Out	
						↖	↑	↗						
						4.64%	83.31%	12.05%						
						Left	Thru	Right						
						0.00%	N/A	100.00%						
						Out	Total	In						
						Congress St NB N (Brown)								

55321.01 TT Hotel
5: Brown St & Congress St

2026 Revised Build Condition
Timing Plan: Peak AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	311	53	30	283	132	0	0	0	0	0	0
Future Volume (Veh/h)	117	311	53	30	283	132	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	127	338	58	33	308	143	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.98						0.98	0.98		0.98	0.98	0.98
vC, conflicting volume	451			396			1066	1138	367	1066	1096	380
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	428			396			1057	1130	367	1057	1087	355
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			97			100	100	100	100	100	100
cM capacity (veh/h)	1107			1163			177	171	678	177	182	674
Direction, Lane #	EB 1	WB 1										
Volume Total	523	484										
Volume Left	127	33										
Volume Right	58	143										
cSH	1107	1163										
Volume to Capacity	0.11	0.03										
Queue Length 95th (ft)	10	2										
Control Delay (s)	3.1	0.9										
Lane LOS	A	A										
Approach Delay (s)	3.1	0.9										
Approach LOS												
Intersection Summary												
Average Delay		2.0										
Intersection Capacity Utilization		57.3%	ICU Level of Service						B			
Analysis Period (min)		15										

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘↙	
Traffic Volume (veh/h)	348	0	0	213	68	161
Future Volume (Veh/h)	348	0	0	213	68	161
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	378	0	0	232	74	175
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				341		
pX, platoon unblocked					1.00	
vC, conflicting volume			378		610	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			378		608	378
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		84	74
cM capacity (veh/h)			1180		458	669
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	378	232	249			
Volume Left	0	0	74			
Volume Right	0	0	175			
cSH	1700	1700	588			
Volume to Capacity	0.22	0.14	0.42			
Queue Length 95th (ft)	0	0	52			
Control Delay (s)	0.0	0.0	15.5			
Lane LOS			C			
Approach Delay (s)	0.0	0.0	15.5			
Approach LOS			C			
Intersection Summary						
Average Delay			4.5			
Intersection Capacity Utilization			38.7%	ICU Level of Service		A
Analysis Period (min)			15			

55321.01 TT Hotel
9: Congress St & Preble St

2026 Revised Build Condition
Timing Plan: Peak AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	315	0	0	238	0	0	0	0	263	2	207
Future Volume (vph)	0	315	0	0	238	0	0	0	0	263	2	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		72			151			106			198	
Travel Time (s)		1.6			3.4			2.4			4.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	0	0	259	0	0	0	0	286	227	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Detector Phase		6		2	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5	
Total Split (s)		22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (%)		33.8%		33.8%	33.8%		33.8%	33.8%		33.8%	33.8%	
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None		None	None		None	None	
v/c Ratio		0.53			0.40					0.52	0.30	
Control Delay		13.2			11.5					12.9	2.9	
Queue Delay		0.0			0.0					0.0	0.0	
Total Delay		13.2			11.5					12.9	2.9	
Queue Length 50th (ft)		52			37					38	0	
Queue Length 95th (ft)		113			84					105	29	
Internal Link Dist (ft)		1			71			26			118	
Turn Bay Length (ft)												
Base Capacity (vph)		963			963					729	928	
Starvation Cap Reductn		0			0					0	0	
Spillback Cap Reductn		0			0					0	0	
Storage Cap Reductn		0			0					0	0	
Reduced v/c Ratio		0.36			0.27					0.39	0.24	
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 35.2												
Natural Cycle: 60												
Control Type: Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St

 Ø2	 Ø4	 Ø9
22 s	22 s	21 s
 Ø6	 Ø8	
22 s	22 s	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	32%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

55321.01 TT Hotel
9: Congress St & Preble St

2026 Revised Build Condition
Timing Plan: Peak AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	315	0	0	238	0	0	0	0	263	2	207
Future Volume (vph)	0	315	0	0	238	0	0	0	0	263	2	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1586	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1586	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	342	0	0	259	0	0	0	0	286	2	225
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	136	0
Lane Group Flow (vph)	0	342	0	0	259	0	0	0	0	286	91	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		12.1			12.1					13.7	13.7	
Effective Green, g (s)		12.1			12.1					13.7	13.7	
Actuated g/C Ratio		0.35			0.35					0.39	0.39	
Clearance Time (s)		4.5			4.5					4.5	4.5	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Lane Grp Cap (vph)		647			647					555	624	
v/s Ratio Prot		c0.18			0.14						0.06	
v/s Ratio Perm										c0.20		
v/c Ratio		0.53			0.40					0.52	0.15	
Uniform Delay, d1		9.1			8.6					8.0	6.8	
Progression Factor		1.00			1.00					1.00	1.00	
Incremental Delay, d2		0.8			0.4					0.8	0.1	
Delay (s)		9.9			9.0					8.8	6.9	
Level of Service		A			A					A	A	
Approach Delay (s)		9.9			9.0			0.0			8.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.8			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		34.8			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		38.6%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

55321.01 TT Hotel
10: Preble St & Cumberland Ave

2026 Revised Build Condition
Timing Plan: Peak AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	261	248	25	177	0	0	0	0	51	200	37
Future Volume (vph)	0	261	248	25	177	0	0	0	0	51	200	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	554	0	27	192	0	0	0	0	0	312	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		30.0		12.0	42.0					23.0	23.0	
Total Split (%)		46.2%		18.5%	64.6%					35.4%	35.4%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.66		0.06	0.21						0.36	
Control Delay		12.4		4.8	5.7						14.3	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		12.4		4.8	5.7						14.3	
Queue Length 50th (ft)		52		2	17						21	
Queue Length 95th (ft)		238		10	47						77	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1293		501	1658						1837	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.43		0.05	0.12						0.17	
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 38.5												
Natural Cycle: 60												
Control Type: Actuated-Uncoordinated												

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	261	248	25	177	0	0	0	0	51	200	37
Future Volume (vph)	0	261	248	25	177	0	0	0	0	51	200	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.93		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1740		1770	1863						3441	
Flt Permitted		1.00		0.23	1.00						0.99	
Satd. Flow (perm)		1740		435	1863						3441	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	284	270	27	192	0	0	0	0	55	217	40
RTOR Reduction (vph)	0	51	0	0	0	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	503	0	27	192	0	0	0	0	0	293	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		17.4		22.9	22.9						9.6	
Effective Green, g (s)		17.4		22.9	22.9						9.6	
Actuated g/C Ratio		0.42		0.55	0.55						0.23	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		729		272	1028						795	
v/s Ratio Prot		c0.29		0.00	c0.10							
v/s Ratio Perm				0.05							0.09	
v/c Ratio		0.69		0.10	0.19						0.37	
Uniform Delay, d1		9.8		5.7	4.6						13.4	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		2.8		0.2	0.1						0.3	
Delay (s)		12.7		5.8	4.7						13.7	
Level of Service		B		A	A						B	
Approach Delay (s)		12.7			4.9			0.0			13.7	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			11.4			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			41.5			Sum of lost time (s)				13.5		
Intersection Capacity Utilization			44.6%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

55321.01 TT Hotel
5: Brown St & Congress St

2026 Revised Build Condition
Timing Plan: Peak PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	387	47	80	400	166	0	0	0	0	0	0
Future Volume (Veh/h)	34	387	47	80	400	166	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	421	51	87	435	180	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.88						0.88	0.88		0.88	0.88	0.88
vC, conflicting volume	615			472			1220	1310	446	1220	1245	525
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	499			472			1183	1284	446	1183	1211	397
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			92			100	100	100	100	100	100
cM capacity (veh/h)	942			1090			134	129	612	134	142	577
Direction, Lane #	EB 1	WB 1										
Volume Total	509	702										
Volume Left	37	87										
Volume Right	51	180										
cSH	942	1090										
Volume to Capacity	0.04	0.08										
Queue Length 95th (ft)	3	6										
Control Delay (s)	1.1	2.0										
Lane LOS	A	A										
Approach Delay (s)	1.1	2.0										
Approach LOS												
Intersection Summary												
Average Delay		1.6										
Intersection Capacity Utilization		58.3%	ICU Level of Service						B			
Analysis Period (min)		15										

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	383	0	0	294	61	136
Future Volume (Veh/h)	383	0	0	294	61	136
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	416	0	0	320	66	148
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked					0.96	
vC, conflicting volume			416		736	416
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			416		706	416
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		83	77
cM capacity (veh/h)			1143		387	637
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	416	320	214			
Volume Left	0	0	66			
Volume Right	0	0	148			
cSH	1700	1700	531			
Volume to Capacity	0.24	0.19	0.40			
Queue Length 95th (ft)	0	0	48			
Control Delay (s)	0.0	0.0	16.3			
Lane LOS			C			
Approach Delay (s)	0.0	0.0	16.3			
Approach LOS			C			
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			38.6%	ICU Level of Service		A
Analysis Period (min)			15			

55321.01 TT Hotel
9: Congress St & Preble St

2026 Revised Build Condition
Timing Plan: Peak PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	389	0	0	403	0	0	0	0	181	0	244
Future Volume (vph)	0	389	0	0	403	0	0	0	0	181	0	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		72			151			106			198	
Travel Time (s)		1.6			3.4			2.4			4.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	423	0	0	438	0	0	0	0	197	265	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Detector Phase		6		2	2		8	8		4	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5	
Total Split (s)		32.0		32.0	32.0		17.0	17.0		17.0	17.0	
Total Split (%)		45.7%		45.7%	45.7%		24.3%	24.3%		24.3%	24.3%	
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None		None	None		None	None	
v/c Ratio		0.57			0.60					0.43	0.29	
Control Delay		11.5			11.9					13.2	0.8	
Queue Delay		0.0			0.0					0.0	0.0	
Total Delay		11.5			11.9					13.2	0.8	
Queue Length 50th (ft)		57			59					25	0	
Queue Length 95th (ft)		113			118					77	0	
Internal Link Dist (ft)		1			71			26			118	
Turn Bay Length (ft)												
Base Capacity (vph)		1546			1546					541	968	
Starvation Cap Reductn		0			0					0	0	
Spillback Cap Reductn		0			0					0	0	
Storage Cap Reductn		0			0					0	0	
Reduced v/c Ratio		0.27			0.28					0.36	0.27	
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 33.4												
Natural Cycle: 60												
Control Type: Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St

 Ø2	 Ø4	 Ø9
32 s	17 s	21 s
 Ø6	 Ø8	
32 s	17 s	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	30%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	389	0	0	403	0	0	0	0	181	0	244
Future Volume (vph)	0	389	0	0	403	0	0	0	0	181	0	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1583	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	423	0	0	438	0	0	0	0	197	0	265
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	178	0
Lane Group Flow (vph)	0	423	0	0	438	0	0	0	0	197	87	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		13.2			13.2					10.9	10.9	
Effective Green, g (s)		13.2			13.2					10.9	10.9	
Actuated g/C Ratio		0.40			0.40					0.33	0.33	
Clearance Time (s)		4.5			4.5					4.5	4.5	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Lane Grp Cap (vph)		742			742					464	521	
v/s Ratio Prot		0.23			c0.24						0.06	
v/s Ratio Perm										c0.14		
v/c Ratio		0.57			0.59					0.42	0.17	
Uniform Delay, d1		7.7			7.8					8.7	7.9	
Progression Factor		1.00			1.00					1.00	1.00	
Incremental Delay, d2		1.1			1.3					0.6	0.2	
Delay (s)		8.8			9.1					9.3	8.0	
Level of Service		A			A					A	A	
Approach Delay (s)		8.8			9.1			0.0			8.6	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.8			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		33.1			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		43.8%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

55321.01 TT Hotel
10: Preble St & Cumberland Ave

2026 Revised Build Condition
Timing Plan: Peak PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	278	240	93	303	0	0	0	0	26	88	0
Future Volume (vph)	0	278	240	93	303	0	0	0	0	26	88	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	563	0	101	329	0	0	0	0	0	124	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		35.0		12.0	47.0					23.0	23.0	
Total Split (%)		50.0%		17.1%	67.1%					32.9%	32.9%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.57		0.18	0.24						0.17	
Control Delay		12.0		3.7	3.7						20.8	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		12.0		3.7	3.7						20.8	
Queue Length 50th (ft)		106		8	28						15	
Queue Length 95th (ft)		206		20	59						42	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1227		612	1640						1738	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.46		0.17	0.20						0.07	
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 43.5												
Natural Cycle: 60												
Control Type: Actuated-Uncoordinated												

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	278	240	93	303	0	0	0	0	26	88	0
Future Volume (vph)	0	278	240	93	303	0	0	0	0	26	88	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.94		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1746		1770	1863						3500	
Flt Permitted		1.00		0.26	1.00						0.99	
Satd. Flow (perm)		1746		484	1863						3500	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	302	261	101	329	0	0	0	0	28	96	0
RTOR Reduction (vph)	0	42	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	521	0	101	329	0	0	0	0	0	124	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		21.0		30.6	30.6						5.3	
Effective Green, g (s)		21.0		30.6	30.6						5.3	
Actuated g/C Ratio		0.47		0.68	0.68						0.12	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		816		475	1269						413	
v/s Ratio Prot		c0.30		0.02	c0.18							
v/s Ratio Perm				0.12							0.04	
v/c Ratio		0.64		0.21	0.26						0.30	
Uniform Delay, d1		9.1		3.9	2.8						18.1	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		1.7		0.2	0.1						0.4	
Delay (s)		10.7		4.1	2.9						18.5	
Level of Service		B		A	A						B	
Approach Delay (s)		10.7			3.2			0.0			18.5	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			8.7			HCM 2000 Level of Service				A		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			44.9			Sum of lost time (s)				13.5		
Intersection Capacity Utilization			50.7%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

Congress at Preble, Portland, ME - 7/29/21

Queuing Observations

Time	Vehicles		
	WB Congress	EB Congress	SB Preble
4:25	3	3	5
4:26	7	2	1
4:27	2	4	1
4:28	0	0	6
4:29	0	1	4
4:30	1	0	0
4:31	3	0	3
4:32	0	0	1
4:33	0	0	0
4:34	0	1	1
4:35	0	1	1
4:36	0	0	0
4:37	0	2	1
4:38	2	3	2
4:39	0	0	0
4:40	0	0	0
4:41	0	0	1
4:42	4	1	0
4:43	1	1	0
4:44	1	1	2
Average	1.2	1	1.45
95th %	4.15	3.05	5.05
95th % ft	83	61	101

max	7	4	6
max (ft)	140	80	120

20 feet - assumed length of vehicle and gap for length of queue

Traffic queues were observed and recorded at the start of each listed minute.

The observed traffic operations show that the constant pedestrian call which actuated an exclusive pedestrian phase as the cause of most queueing.

Pedestrian counts, total individual pedestrians whether alone or in groups, crossing Congress Street.

Congress/Preble

7/29/2021

	WBT	SBL	SBR	EBT	Center NB	Center NB	Peds StoN	Peds NtoS
3:45	23	9	8	21	0	10	2	4
3:50	14	15	7	24	1	7	3	7
3:55	20	10	7	23	1	8	10	4
15 Min	57	34	22	68	2	25	15	15
4:00	19	11	5	24	0	9	4	10
4:05	20	11	8	25	0	8	2	4
4:10	29	10	3	34	0	13	3	2
15 Min	68	32	16	83	0	30	9	16
4X	272	128	64	332	0	120	36	64

Northbound traffic on Center Street was counted separately from the intersection of Center Street and Preble Street. Center Street right turning traffic were then subsequently counted as Congress Street eastbound through movements.

Peds StoN - Pedestrian movements from the south side of the road to the north

Peds NtoS - Pedestrian movements from the north side of the road to the south

Pedestrian movements across Preble Street were not counted.

A R C H I T E C T U R E

July 30, 2021

Shukria Wiar
Portland City Hall
389 Congress Street
Portland, Maine 04101

Dear Shukria,

RE: Time and Temperature Hotel Entrance Location

I am writing you regarding the city's request to relocate the hotel valet operation and therefore also the main entry to the hotel on to Preble Street. I want to express the following reasons why this is not possible, and our logic in placing the entry, in its present location, for your consideration.

1. The building is a Contributing resource in the Congress Street Historic District and designated as a Certified Structure by the National Park Service (NPS). The rehabilitation project will use state and federal historic tax credits to fund a significant percentage of the cost to preserve and repurpose this landmark building. All aspects of the project must be found to meet the Secretary of the Interior's Standards as interpreted by Maine Historic Preservation Commission and NPS. Our historic consultant highly recommends that the original primary entrance to the building be utilized as the entry for the new hotel in order to meet the Standards.
2. This main entry location allows for an ADA compliant entry on a relatively flat sidewalk and gives all guests entering the building, not only an historically significant entry, but a truly grand architectural entry into what we hope will become one of Portland's premiere hotels. The hotel lobby and public spaces including the historic retail arcade, meeting spaces, and restaurant are also supported by the entrance on Congress Street and the program currently planned would not be able to be maintained if the entrance were relocated to Preble Street.
3. Developing a main entry on Preble Street is problematic from an aesthetic and historical aspect, as stated above, and presents highly concerning ADA access issues. Preble Street sidewalk is at a 6% slope, which effectively makes reconfiguring the street and sidewalk to accommodate ADA access, extremely difficult and awkward at best. The first floor is also approximately 4 feet above the sidewalk at Preble Street presenting another issue of providing a lift in the building and/or approximately 48 feet of ramping. Both scenarios are aesthetically unappealing and do not provide an equal arrival experience for all guests given the ADA constraints.

We are all hopeful of creating a magnificent hotel for the city of Portland and hope that you will take these critical factors into your consideration.

Respectfully,



David Lloyd,
Maine Licensed Architect
Architect/President, Archetype



MacRostie Historic Advisors LLC

Bringing equity, strategy, and experience
to historic building development

August 2, 2021

Shukria Wiar
Portland City Hall
389 Congress Street
Portland, Maine 04101

RE: Time and Temperature Hotel Entrance Location

Dear Shukria,

I am writing you regarding the city's request to relocate the hotel valet operation and therefore also the main entry to the hotel on to Preble Street.

The building is a Contributing resource in the Congress Street Historic District and designated as a Certified Structure by the National Park Service (NPS). The rehabilitation project will use state and federal historic tax credits (HTCs) to fund a significant percentage of the cost to preserve and repurpose this landmark building. Combined state and federal historic tax credits equal 45% of qualifying rehabilitation expenses. All aspects of the project must be found to meet the Secretary of the Interior's Standards as interpreted by Maine Historic Preservation Commission and NPS.

In the Technical Preservation Services "Standards Guidelines" from NPS, under Building Exterior Entrances and Porches, "Cutting new entrances on a primary elevation" is "Not Recommended." This point is further emphasized in the document under "Recommended" treatments: "Designing and installing additional entrances or porches when required for the new use in a manner that preserves the historic character of the buildings, *i.e., limiting such alteration to non-character-defining elevations.*" While less important than the Congress Street elevation, the Preble Street elevation of the building is character-defining. This point was made by the Portland Historic Preservation Board during the project's last workshop, when they clearly stated that the Preble Street elevation of the complex should not be treated as less important than the Congress Street elevation.

Unlike the Portland HP Board, state and federal reviewers also consider alterations to the interior of a building being rehabbed with historic tax credits. Their review is cumulative – balancing preservation and restoration of significant spaces and features against changes required to accommodate the new use of the building. Changing an office building with an original banking hall and shopping arcade to a hotel requires significant changes to much of the building, requiring significant efforts to preserve and restore the most important features.

Washington

Boston

Chicago

Charleston

Houston

New Orleans

San Jose

macrostiehistoric.com

313 Washington Street
Suite 308
Newton, MA 02458

T 617.499.4009

F 617.499.4019

NPS guidance for “Building Interior: Spaces, Features, and Finishes states, “An interior floor plan, the arrangement and sequence of spaces, and built-in features and applied finishes are individually and collectively important in defining the historic character of the building. Their identification, retention, protection, and repair should be given prime consideration in every rehabilitation project.” A critical element of meeting the standards for this project is restoring the historically significant arcade and banking hall to balance out the major alterations required in other parts of the complex to accommodate its new use as a hotel.

This includes restoration of the primary entrance to the banking hall by reopening the central area of the floor and recreating the missing monumental staircase to access the space. This staircase was originally oriented toward the main entrance from Congress Street, creating a progression through the elaborate entrance with carved stone ornament crowned by an eagle on Congress Street, into a low-ceilinged space with the monumental stair rising to the two-story tall banking hall at its center, with light flooding down through the open stairwell into the lower lobby. This sequence of arrival, unique in Portland, was intentional and designed to impress. The restoration of this original element of the building’s design is very important to meeting the standards in the cumulative review by the state and NPS. Moving the primary entrance for the hotel to Preble Street would require reorientating the monumental stair away from the historic Congress Street entrance. “Relocating an interior feature such as a staircase so that the historic relationship between features and spaces is altered” is specifically “Not Recommended” in the NPS guidance.

As historic consultant for this project, I have serious concerns about the ability to receive state and federal HTC approval for the project if the primary entrance to the hotel is relocated to the Preble Street elevation. I highly recommend that the original primary entrance to the building be utilized as the entry for the new hotel in order to meet the Standards.

Sincerely,

Scott Hanson
MHA Senior Associate

7/30/2021

Brandon Mazer, Chairman, Maggie Stanley, Vice-Chairman and
Planning Board Members
389 Congress Street, 4th Floor
Portland, ME 04101

RE: Request for site plan approval including valet parking zone as requested

Dear Chairman, Vice-Chairman and Planning Board Members,

There are several important factors in the operation of a successful hotel valet operation. Chief among those are safety and guest arrival/departure experience. Safety includes personal bodily safety for the arriving or departing guest (well-lit, covered, populated area) as well as vehicular and traffic safety- not only for the guest but also the surrounding moving traffic. Key to achieving a safe and pleasant valet experience include proper arrival location (main entrance, with curb cutout of approx. 7-8 spots for a hotel this size in Portland) and appropriate staffing.

Location

The location must be easily and intuitively accessible in order to facilitate an efficient arrival and departure. A well-marked and intuitive valet zone location at the hotel's main entrance facilitates smooth and safe arrivals. Despite efforts to educate guests prior to arrival regarding an unusual valet zone location (anything that is not directly connected to the main entrance and map address), most guests and rideshare drivers will attempt to arrive at the hotel's main entrance/address, and more often than not will be directed to that location by internet mapping services such as Google Maps, Apple Maps, Mapquest, etc, regardless of the frequent attempts to re-locate geo markings.

Beyond the safety provided by a well-located and staffed valet zone, guest experience is also of extreme importance, especially at the level of luxury this hotel intends to provide. Most hotel guests, unlike customers of other local businesses, are traveling from out of town. Guests often arrive at a hotel tired and frazzled after a long day of travel and are unfamiliar with the city. Adding inclement weather, especially rain or snow, while schlepping luggage transforms an inconvenient valet location from a mere annoyance to a breaking point, leaving the guest with a sour taste for the hotel and the city they are intending to visit and enjoy. Anything other than a seamless arrival experience puts the hotel operation at a disadvantage and sets the business up for future failure prior to a guest even walking in the main entrance for the first time.

We believe strongly that the arrival route being proposed by the planning staff with the valet parking zone on Preble Street will create more congestion on both Congress Street and Preble Street as most guests will arrive using navigation systems, bringing the vehicle to the main entrance at 477 Congress. Relocating the hotel's address on any mapping platform such as Google Maps is an arduous and opaque process that is never 100% effective. For example, if a guest searches for the location by name ("The Time & Temperature Hotel Portland") the mapping program will still send them to the main entrance. The same will happen if they search for the hotel by its main address. Only if the location can be

identified specifically as the valet location (“Time & Temperature Hotel Valet”) will the mapping service recognize it- and it is hit and miss at that. The AI and algorithms used by the mapping services default to the locations that are most frequently searched for therefore the main hotel address will always be the default or first listed even if a secondary address exists. We have had experience with moving addresses with multiple hotels, in many cities across the country and the process is never smooth, and in some of these cases we were moving an address to a more obvious, less confusing location.

The location must also be appropriately sized so arriving drivers can pull out of traffic sufficiently to not create street congestion and back-ups. Valet attendants will be in place and able to offer assistance to arriving guests immediately on their arrival in order to safely direct them out of traffic and to a safe stopping point within the valet zone. Without sufficient valet zone space, drivers will panic and stop suddenly in traffic. The appropriate size could be accomplished through the additional curb cut proposed on the site plan of the Congress Street sidewalk directly in front of the hotel’s main entrance, including the spaces already present.

The Godfrey Hotel Boston (owned, development and operated by Oxford), located at 505 Washington Street in the very heart of Downtown Boston, offers an example of a valet parking zone located directly in front of the main entrance, accomplished through a curb cutout. Washington Street is an extremely busy street which terminates into a pedestrian-only zone just feet from the hotel. Additionally, a double-length Silver Line T Bus runs along the street and turns onto a side street (Temple Place) at the corner of the valet zone. Although it is a heavily congested street, the valet zone operates smoothly and safely. Other hotels within the City of Boston share similar circumstances and are able to operate efficiently with curb cutouts. Examples include The Moxy and W hotels on Stuart Street and the Hilton Boston Financial District on Broad Street. A little closer to home, the AC Hotel on Vaughn Street in Portsmouth, NH also successfully operates in a similarly trafficked zone with a curb cutout.

Staffing

Maintaining sufficient staffing levels, especially during peak times of the week, is equally important to proper location. Valet parking attendants’ direct traffic, act as ambassadors for both the hotel and city (they are truly the first point of contact for many visitors), and assist with luggage. By having a well-located valet parking zone, the attendants are able to keep an eye on arriving cars while carrying out their other duties. Luggage assistance is efficient because it does not require transporting it a long distance and there is a direct line of vision between arriving vehicles and the hotel entrance. A valet zone that is located around the corner on a side street will create a number of obstacles for a well-managed valet operation, not to mention additional traffic congestions and security related concerns.

The cost of operating a valet operation around the corner from the main entrance will be significantly higher than if the operation were located at the main entrance. But this cost could be dwarfed by the lost opportunity cost of a bad guest experience. A poor arrival and departure experience (the first and last experience for a hotel guest) will result in lower guest-satisfaction ratings and will challenge the hotel’s ability to compete with other hotels locally. Among chain hotel companies such as Hilton, Marriott, Hyatt and Kimpton/IHG the arrival and departure experience are considered so important that a hotel that is underperforming in this area can be defaulted by the brand and lose its affiliation. The brands’ preference is always to locate the valet parking zone directly in front of the hotel at the main entrance for a seamless arrival/departure.

Oxford Capital Group develops, owns and operates hotels throughout the U.S. As a developer we have completed nearly a dozen historic preservation and/or adaptive reuse projects nationally, including a number of landmarked buildings for which we have received local and national awards. We are believers in great architecture and great design. We believe that whenever we can make a smart real estate investment while also transforming an elegant historic building that may have fallen on hard times, we would like to do it as it not only good for us, but it is also great for the neighborhood and city. We are proud that we can create something beautiful that generates millions of dollars of incremental taxes and will generate robust economic activity at the location. Having decades of ownership, development and operating experience it is our position that the lack of a curb cutout in front of the main entrance to operate arriving valet parking will not only adversely affect local traffic patterns as well as our guest experience and hotel operating performance. This is such a critical element that if it does not get approved, we will have to reassess our investment in this project.

Thank you for your consideration to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Larry Casillo', with a stylized, cursive script.

Larry Casillo

Vice President

Oxford Hotels & Resorts, LLC | Oxford Capital Group, LLC



Project:

Location:

Fixture Type:

Catalog Number:

AVAILABLE FINISHES:



Two If By Sea

WS-W41912

PRODUCT DESCRIPTION

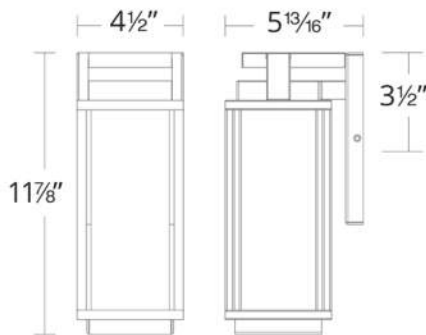
Take shelter from the storm. Like a hard rainfall on the window panes, timeless inspiration is melded with modern technology to create a stunning LED luminaire. Beautiful light diffuses through clear hammered mouth blown glass for a soft glow on all sides of this geometric wall sconce. Crafted from extruded aluminum and wet rated for outdoor use, this piece is guaranteed to make a grand first impression.

FEATURES

- ACLED driverless technology
- Clear mouth-blown hammered glass
- Down light illumination

SPECIFICATIONS

Rated Life	54000 Hours
Standards	ETL, cETL, Wet Location Listed, IP65, Title 24 JA8: 2019 Compliant
Input	120 VAC, 50/60Hz
Dimming	ELV: 100-10%, TRIAC: 100-10%
Color Temp	3000K
CRI	90
Construction	Aluminum hardware, Clear, hammered, mouth-blown glass

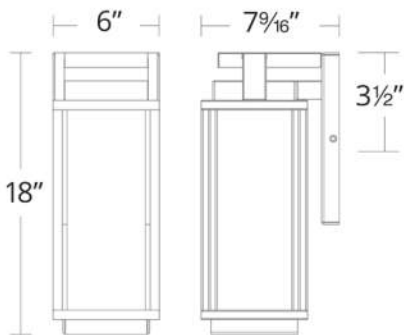


WS-W41912

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
○ WS-W41912 12"	3000K	○ BK Black	15W	1200	919

Example: **WS-W41912-BK**

For custom requests please contact customs@modernforms.com



WS-W41918

Project:

Location:

Fixture Type:

Catalog Number:

AVAILABLE FINISHES:



Two If By Sea

WS-W41918

PRODUCT DESCRIPTION

Take shelter from the storm. Like a hard rainfall on the window panes, timeless inspiration is melded with modern technology to create a stunning LED luminaire. Beautiful lightdiffuses through clear hammered mouth blown glass for a soft glow on all sides of this geometric wall sconce. Crafted from extruded aluminum and wet rated for outdoor use, this piece isguaranteed to make a grand first impression.

FEATURES

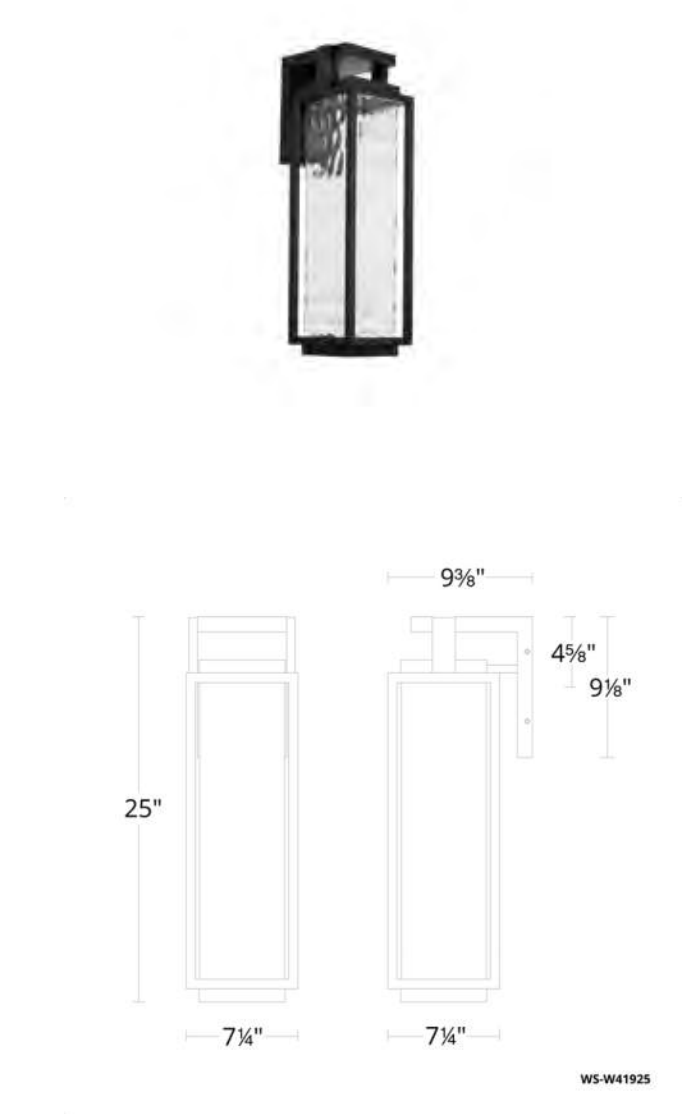
- ACLED driverless technology
- Clear mouth-blown hammered glass
- Down light illumination

SPECIFICATIONS

Rated Life	54000 Hours
Standards	ETL, cETL,Wet Location Listed,IP65,Title 24 JA8: 2019 Compliant
Input	120 VAC,50/60Hz
Dimming	ELV: 100-10%,TRIAC: 100-10%
Color Temp	3000K
CRI	90
Construction	Aluminum hardware, Clear, hammered, mouth-blown glass

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
○ WS-W41918 18"	3000K	○ BK Black	15W	1200	965

Example: **WS-W41918-BK**
For custom requests please contact customs@modernforms.com



Project:

Location:

Fixture Type:

Catalog Number:

AVAILABLE FINISHES:

Two If By Sea

WS-W41925

PRODUCT DESCRIPTION

Take shelter from the storm. Like a hard rainfall on the window panes, timeless inspiration is melded with modern technology to create a stunning LED luminaire. Beautiful lightdiffuses through clear hammered mouth blown glass for a soft glow on all sides of this geometric wall sconce. Crafted from extruded aluminum and wet rated for outdoor use, this piece isguaranteed to make a grand first impression.

FEATURES

- ACLED driverless technology
- Clear mouth-blown hammered glass
- Down light illumination

SPECIFICATIONS

Rated Life	54000 Hours
Standards	ETL, cETL,Wet Location Listed,IP65,Title 24 JA8: 2019 Compliant
Input	120 VAC,50/60Hz
Dimming	ELV: 100-10%,TRIAC: 100-10%
Color Temp	3000K
CRI	90
Construction	Aluminum hardware, Clear, hammered, mouth-blown glass

REPLACEMENT PARTS

RPL-GLA-41925 - Outer Glass

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
○ WS-W41925 25"	3000K	○ BK Black	20W	1600	1317

Example: **WS-W41925-BK**
For custom requests please contact customs@modernforms.com

BeveLED® 2.2 Basic

4.5" Round Downlight - B4RD-G1



Universal and Field Convertible - Trim | Trimless | Millwork



usalighting.com/beveledbasic

Meet the new and improved BeveLED Basic, upgraded with even more efficient, perfectly consistent classic white LED light engines and our field convertible trims that allow for easy on-site changes from trimmed to trimless to millwork – all in a budget-conscious product with the same below ceiling appearance as our extremely versatile BeveLED 2.2 product line.

FEATURES

- Field Flexibility between trimmed, trimless and millwork
- Dry/damp/wet location rated for bathrooms and showers, including trimless and millwork
- 1% dimming standard + more dimming options
- Clear overspray protector for installation convenience

COMPANION FAMILY PRODUCTS



DOWNLIGHT PERFORMANCE DATA

DELIVERED* PERFORMANCE:	Classic White							
	9W		12W		16W		24W	
Color Rendering Index:	80+	90+	80+	90+	80+	90+	80+	90+
Source Lumens:	900	725	1275	1050	1775	1450	2650	2175
Lumens Per Watt:	79	65	85	69	85	69	89	73
Delivered Lumens:	700	575	1025	825	1425	1175	2125	1750
EM Mode Output:	550 Delivered Lumens (nominal)							

*Based on 3000K. Performance varies for each specific beamspread and color temperature. See IES files for exact values at usalighting.com.

CORRELATED COLOR
TEMPERATURE
MULTIPLIER

	Classic White							
	2700K		3000K		3500K		4000K	
Color Rendering Index:	80+	90+	80+	90+	80+	90+	80+	90+
Multiplier for Lumen Output:	0.94	0.82	1.00	0.82	1.00	.88	1.00	0.94

HOW TO SPECIFY

BeveLED® 2.2 Basic
4.5" Round Downlight - B4RD-G1



Specify fixture part number. (All boxes must be filled in to correctly order)

B4RD	BeveLED Trim Style	Wattage Options	LED Color Options	Beam Options	Lens Options	Bevel Trim Finish Options	*Flange/Millwork Collar Finish	Natatorium Corrosion Protection (optional)	Housing Options	Voltage Options <i>Select one</i>	Dimming Driver Options	Accessories (Optional)*
	Classic White Light											
F Trimmed with Flange (use with all materials)	09G1 9W LED	27KS 2700K, 80+ CRI	25 25° beam	S Solite (provided standard)	WH White	WH White	NT Natatorium triple-coat Corrosion resistant (available with "F" flanged trims and painted finishes only)	NCSM New Construction Narrow Width	UNV 120V-277V	For use with Universal Voltage 120V - 277V	CB27 27" C-Channel Bars	
L Trimless Spackle-in (use with sheetrock and plaster only) (5)	12G1 12W LED	27KH 2700K, 90+ CRI	50 50° beam	BF Borosilicate Frosted	SC Conduit Silver	SC Conduit Silver		NC New Construction		No Additional Charge	CB52 52" C-Channel Bars	
M Millwork Knife-Edge (use with wood and stone) (5)	16G1 16W LED	30KS 3000K, 80+ CRI	90 90° beam		GR Grey	GR Grey		NCCP Chicago Plenum		D6E EldoLED 0-10V, 1% (provided standard)	EM Emergency Battery (3)	
	24G1 24W LED	30KH 3000K, 90+ CRI			BL Black	BL Black		NCIC Insulation Contact Rated / Airtight		D6F EldoLED 0-10V, 1%	EMW Emergency Battery Wet Location (4)	
		35KS 3500K, 80+ CRI			BZ Bronze	BZ Bronze				D4A Lutron ECO, 0.1% (2)		
		35KH 3500K, 90+ CRI			PR (5) Primer Finish	PR Primer Finish	* Leave blank for non Natatorium trims			D4H Lutron H ECO, 1% Fade (1)		
		40KS 4000K, 80+ CRI			AC (5) Clear Matte Anodized	AC Clear Matte Anodized				D4P Lutron ECO, 1% (2)		
		40KH 4000K, 90+ CRI				WH White				D6A EldoLED 0-10V, 0.1%		
						GR Grey				D6B EldoLED 0-10V, 0.1%		
						BL Black				D7 EldoLED DALI, 0.1%		
					AB (5) Piano Gloss Black	AB Piano Gloss Black				D28 EldoLED DMX, 0.1%		
						WH White						
						GR Grey						
						BL Black						
					RAL Custom Color Specify RAL #	RAL Custom Color Specify RAL #				120V	For use with 120V only	
							*Leave blank for Trimless			No Additional Charge	D19 Phase 2-wire, 1% (1)	
										D3 Lutron 2-wire, 1%		

Notes: 1 Not available with 9W.
2 Not available with 24W
3 For NC and NCSM housings only. NCSM housing requires above ceiling access.
4. This is a gasketed remote test switch available with NCSM housings only. Above ceiling access required.
5 Not available with NT natatorium corrosion finish

TRIM FINISH OPTIONS



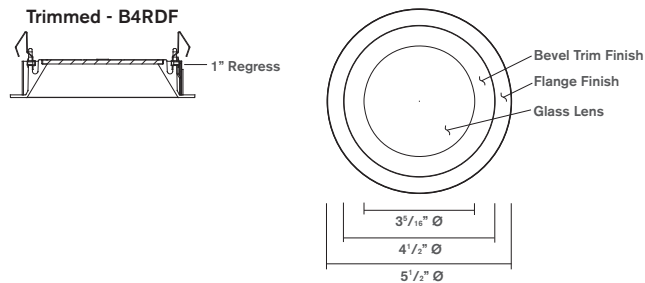
Custom colors and primer finish also available

BeveLED® 2.2 Basic 4.5" Round Downlight - B4RD-G1



Trimmed - B4RDF-G1

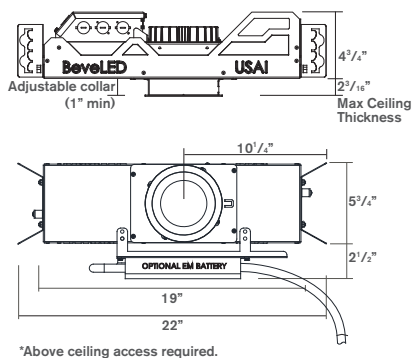
TRIM DETAILS



Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

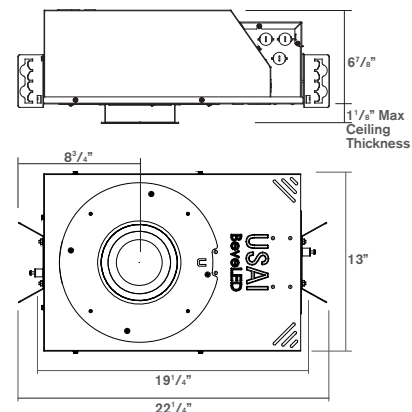
HOUSING OPTIONS

New Construction Narrow Width - NCSM NCSM with Emergency Battery*



*Above ceiling access required.

New Construction - NC Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP NC with Emergency Battery



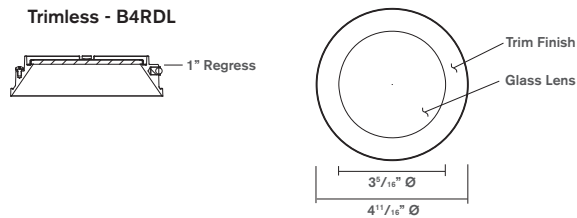
BeveLED® 2.2 Basic 4.5" Round Downlight - B4RD-G1



Trimless - B4RDL-G1

TRIM DETAILS

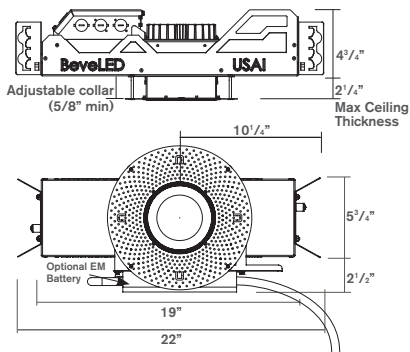
Trimless - B4RDL



Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

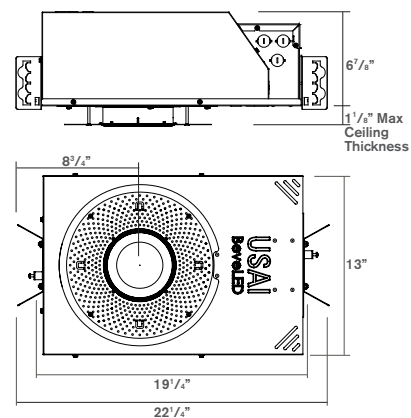
HOUSING OPTIONS

New Construction Narrow Width - NCSM NCSM with Emergency Battery*



*Above ceiling access required.

New Construction - NC Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP NC with Emergency Battery

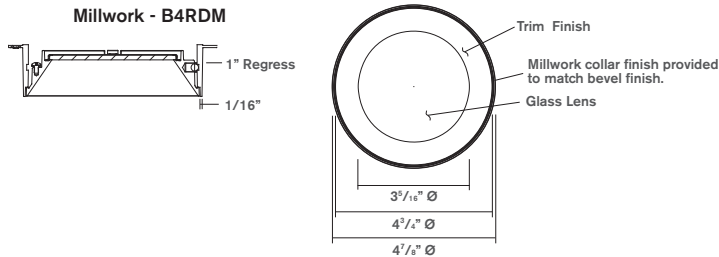


BeveLED® 2.2 Basic 4.5" Round Downlight - B4RD-G1



Millwork - B4RDM-G1

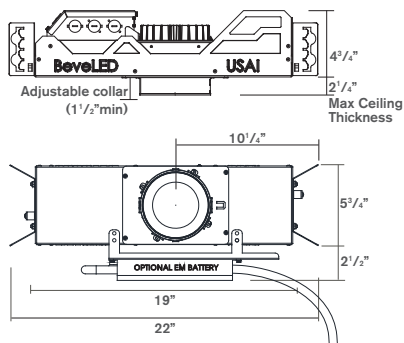
TRIM DETAILS



Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

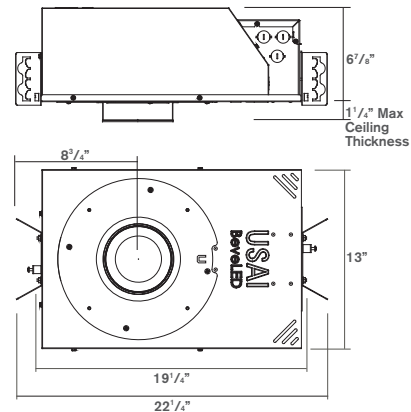
HOUSING OPTIONS

New Construction Narrow Width - NCSM NCSM with Emergency Battery*



*Above ceiling access required.

New Construction - NC Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP NC with Emergency Battery



BeveLED® 2.2 Basic 4.5" Round Downlight - B4RD-G1



BEVELED BASIC SPECIFICATIONS

FIELD REPLACEABLE LED LIGHT ENGINE

is serviceable through the aperture without tools or with a Philips screwdriver. All USAI Lighting light engines feature industry-leading color consistency.

TRIM

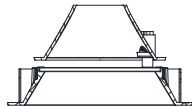
Die-cast 4.5" diameter aperture round trim with a 1" regress retains a glass lens.

FIELD REPLACEABLE DRIVER

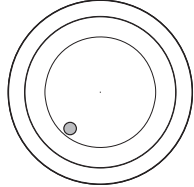
Unless otherwise specified, a 0-10V, 100%-1% solid state electronic constant current integral D6E dimming driver with a high power factor is provided standard and sources 2mA. All integral dimming drivers are located within the fixture housing and are serviceable from below the ceiling through the aperture. Some on-time delay may be experienced depending on control system used. All dimming drivers comply with IEEE C62.41 surge protection.

EMERGENCY BATTERY

IOTA emergency battery provides backup power for 90 minutes. NC EM fixtures are provided with an integral emergency battery with integral test switch and can be serviced through the aperture from below the ceiling plane. NCSM EM fixtures are provided with an integral emergency battery with a remote test switch, which comes with a 24" lead length for location of the test switch. Remote EM test switch is dry/damp only; select EMW emergency option for a wet location-rated EM test switch. NCSM EM fixtures require above ceiling access for service of the EM pack. Fixtures that have no USAI EM option may be connected to an inverter (by others) for emergency lighting.



Integral Emergency
Test Switch included
with NC housing



Remote Emergency Test Switch
included with NCSM housing
(above ceiling access required).

HOUSING

All BeveLED Basic fixtures are field-flexible which allows for field changes from trimless or millwork to trimmed with a simple components change with parts from USAI. Housings are fabricated of 20 ga. steel construction with thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring, except for NCSM which is fabricated of 18 ga. steel. NCIC housing for use with 9W, 12W, and 16W light engines only is rated for direct contact with spray foam insulation of R-42 or less.

MOUNTING

B4RDF overlap flange fixtures are designed for use in sheetrock, acoustical ceiling tile, and many other ceiling materials. B4RDL trimless fixtures are provided with a spackle collar and are designed for use in sheetrock/mud-in ceiling applications. B4RDM millwork fixtures are provided with a millwork collar in finish to match trim finish specified and are designed for use in wood/millwork, stone and tile construction applications. Butterfly brackets and residential grade adjustable nailer bars extendible from 14" to 24" centers with integral nails are provided standard for attachment to building structure. C-channel bars are optionally available for acoustical ceiling applications.



Residential-grade nailer bars provided standard.

FIXTURE WEIGHT

NC, NCIC, and NCCP housings weigh 16 lbs. NCSM housing weighs 10 lbs., NCSM with EM weighs 16.5 lbs, and NC housing with EM weighs 24.5 lbs.

WARRANTY

Based on IESNA LM80-2008, BeveLED has a 50,000 hour rated life at 70% lumen maintenance (L70). USAI Lighting Warranty covers replacement parts for 5 years from date of shipment. Ambient temperatures at fixture location should not exceed 40°C during normal operation.

CEILING CUT OUT

B4RDF Trimmed with Overlap Flange: 5-1/16" Ø

B4RDL Trimless Spackle-in: 5-1/2" Ø

B4RDM Millwork Knife-edge: 4-15/16" Ø

TRIM FINISH

BeveLED Basic trims are available in a wide range of finishes. USAI's standard powdercoat painted trim finishes are white, conduit silver, gray, black, and bronze. A clear matte anodized bevel and piano gloss black electrocoated bevel are also available with matching or contrast-painted flange finish options. Natatorium finishes are triple-coated for corrosion resistance; these coatings are offered in painted finishes only and are not available for trimless or millwork. All trim finishes are dry/damp/wet location rated, with the exception of the anodized (-AC-) and electrocoated (-AB-) bevel finishes, which are dry/damp only. Please contact the USAI factory with a RAL number specification for custom color trims, or specify the field-paintable primer finish option.

Page 6

USAI LIGHTING COLLABORATORY

13 Crosby Street
New York, NY 10013
845-234-4090
showroom@usailighting.com

USAI LIGHTING HEADQUARTERS

1126 River Road
New Windsor, NY 12553
T: 845-565-8500
info@usailighting.com

© 2019, USAI, LLC. All rights reserved.
All designs protected by copyright.
Covered by US Patents: 9,671,091 and 7,832,889.
Patents pending: USAI, BeveLED and Classic White
are registered trademarks of USAI, LLC.
Revised 05/26/2021

BeveLED® 2.2 Basic 4.5" Round Downlight - B4RD-G1



BEVELED BASIC SPECIFICATIONS

LISTINGS

Dry/Damp/Wet location. AC and AB trim finishes are dry/damp only. Remote EM test switch is dry/damp only. Select EMW option for wet location remote test switch. UL2043 rated for use in air handling plenums. NRTL/CSA-US tested to UL standards. IBEW union made.



NOTES

- Use of pressure washer voids warranty

PHOTOMETRICS

Consult factory or website for IES files. Tested in accordance with IESNA LM79.

USAI LIGHTING COLLABORATORY

13 Crosby Street
New York, NY 10013
845-234-4090
showroom@usailighting.com

USAI LIGHTING HEADQUARTERS

1126 River Road
New Windsor, NY 12553
T: 845-565-8500
info@usailighting.com



DIMMING DRIVER COMPATIBILITY SELECTION GUIDE D3 / DIML3

DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS

- SAVE THESE INSTRUCTIONS

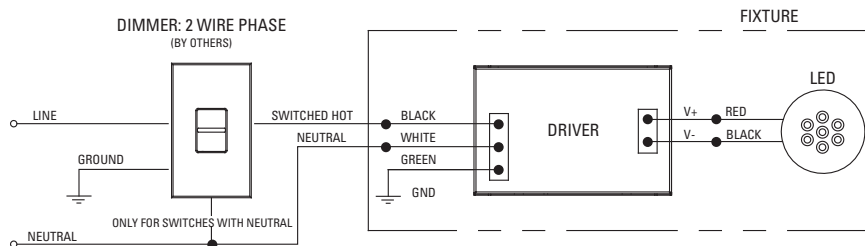
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D3 / DIML3 LED: Lutron Hi-Lume A-Series 2 Wire Fwd Phase (with neutral) / LED Dimming Driver Wiring (Dims down to 1%) 120V

D3 / DIML3 Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*	
				Fixture Wattage	
120V Only				39W and Less	40W - 80W
ETC	Sensor+ Cabinet	ELV10	100% - 1%	1 – 26	1 – 13
ETC	Unison DRd Cabinet	ELV10	100% - 1%	1 – 26	1 – 13
Lutron	Maestro Wireless® 600W dimmer	MRF2-6ND-120-	100% - 1%	1 – 8	1 – 4
Lutron	Maestro Wireless® 1000W dimmer	MRF2-10ND-120-	100% - 1%	1 – 13	1 – 6
Lutron	HomeWorks® QS adaptive dimmer	HQRD-6NA-	100% - 1%	1 – 8	1 – 4
Lutron	HomeWorks® QS 600W dimmer	HQRD-6ND-	100% - 1%	1 – 8	1 – 4
Lutron	HomeWorks® QS 1000 W dimmer	HQRD-10ND-	100% - 1%	1 – 13	1 – 6
Lutron	Caseta Wireless® Pro 1000W dimmer	PD-10NXD-	100% - 1%	1 – 13	1 – 6
Lutron	Stanza® dimmer	SZ-6ND-	100% - 1%	1 – 8	1 – 4
Lutron	RadioRA® 2 adaptive dimmer	RRD-6NA-	100% - 1%	1 – 8	1 – 4
Lutron	RadioRA® 2 1000 W dimmer	RRD-10ND-	100% - 1%	1 – 6	1 – 3
Lutron	myRoom DIN power module	MQSE-4A1-D	100% - 1%	1 – 6	1 – 3
Lutron	HomeWorks® QS wallbox power module	HQRJ-WPM-6D-120-	100% - 1%	1 – 26	1 – 13
Lutron	Homeworks® DIN power module	LQSE-4A1-D	100% - 1%	1 – 6	1 – 3
Lutron	HomeWorks® wallbox power module	HWI-WPM-6D-120	100% - 1%	1 – 26	1 – 13
Lutron	GRAFIK Eye® QS control unit	QSGR-, QSGRJ-	100% - 1%	1 – 26	1 – 13
Lutron	GRAFIK Eye® 3000 control unit	GRX-3100-, GRX-3500-	100% - 1%	1 – 26	1 – 13
Lutron	RPM-4U module	HW-RPM-4U-120, LP-RPM-4U-120	100% - 1%	1 – 26	1 – 13
Lutron	RPM-4A module	HW-RPM-4A-120, LP-RPM-4A-120	100% - 1%	1 – 26	1 – 13
Lutron	GP dimming panels	Various	100% - 1%	1 – 26	1 – 13
Lutron	Ariadni CL 250W dimmer	AYCL-253P-	100%-1%	1 – 8	1 – 4
Lutron	Diva CL 250W dimmer	DVCL-253P-, DVSCCL-253P-	100%-1%	1 – 8	1 – 4
Lutron	Grafik T CL or RF CL dimmer	GT-250M-, GTJ-250M-	100%-1%	1 – 8	1 – 4
Lutron	Nova T CL 250W dimmer	NTCL-250-	100%-1%	1 – 10	1 – 5

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

D3 / DIML3 2 WIRE PHASE DIMMING



USAI
Lighting

DIMMING DRIVER COMPATIBILITY
SELECTION GUIDE
D4H /DIML4H

DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

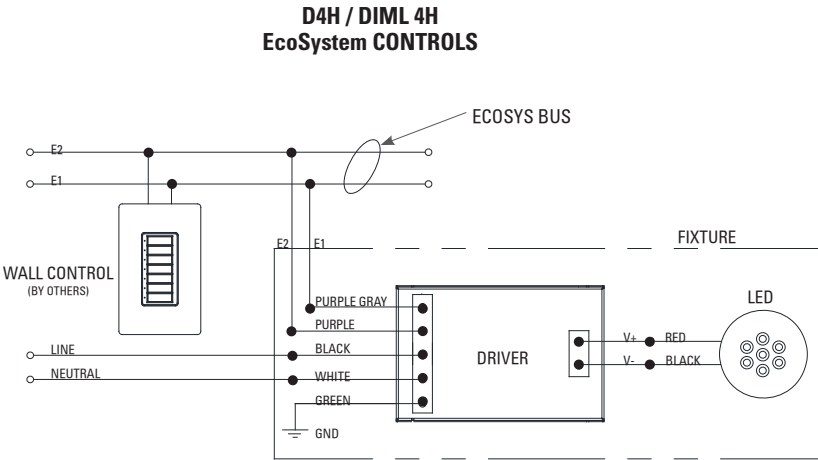
IMPORTANT SAFETY INSTRUCTIONS
- SAVE THESE INSTRUCTIONS

- 1. Keep these instructions in a safe place for future reference.
- 2. Only qualified electricians in accordance to local codes should install these fixtures.
- 3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
- 4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
- 5. Cap any wires not used separately (not together).

D4H / DIML4H LED: Lutron H Series EcoSystem LED Driver with Fade to Black (dims down to 1%)

D4H / DIML4H EcoSystem Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control* Fixture Wattage	
120V / 277V				39W and Less	40W - 80W
Lutron	PowPak dimming module	RMJ-ECO32-DV-B	100%-1%	1-32	1-16
Lutron	Energi Savr Node	QSN-1ECO-S, QSN-2ECO-S	100%-1%	1-64	1-32
Lutron	GRAFIK Eye QS (120V ONLY)	QSGRJ- E, QSGR- E	100%-1%	1-64	1-32
Lutron	Quantum	Various	100%-1%	1-64	1-32

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.





DIMMING DRIVER COMPATIBILITY SELECTION GUIDE

D6A / DIML6A and D6E / DIML6E D6B / DIML6B and D6F / DIML6F

IMPORTANT SAFETY INSTRUCTIONS

- SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D6A / DIML6A and D6E / DIML6E LED Dimming Compatibility Table

D6A / DIML6A and D6E / DIML6E are linearly programmed dimming drivers for use with the dimming controls listed in the table below.

D6A / DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%

D6E / DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

D6A / DIML6A and D6E / DIML6E Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		
120V & 277V			DIML6A	6E	Qty Fixtures Per Dimmer*
Lutron	Diva	DVTV/NFTV with PP-20	99% - 0.1%	1%	Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer.
Lutron	Nova T	NTFTV with PP-20	99% - 0.1%	1%	
Lutron	Energi Savr Node	QSN-4T16-S	100% - 0.1%	1%	
Lutron	GP Dimming Panels	TVM2 Module	99% - 0.1%	1%	
Lutron	Interfaces	GRX-TVI w/ GRX3503	100% - 0.1%	1%	
Sensor Switch	nIO	nIO EZ	100% - 0.1%	1%	Enlighted compatible.
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%	

D6B / DIML6B and D6F / DIML6F LED Dimming Compatibility Table

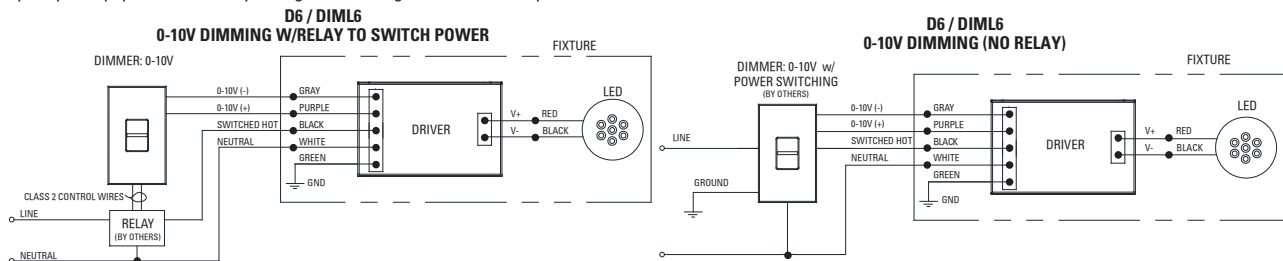
D6B / DIML6B and D6F / DIML6F are logarithmic-programmed dimming drivers for use with the dimming controls listed in the table below.

D6B / DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1% D6F / DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

D6B / DIML6B and D6F / DIML6F Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		
120V & 277V			DIML6B	6F	Qty Fixtures Per Dimmer*
Bush-Jaeger	Electronic potentiometer	2112U-101	100% - 0.1%	1%	Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer.
Jung	Electronic potentiometer	240-10	100% - 0.1%	1%	
Leviton	Iluma Tech dimmer	IP710-DLX	100% - 0.1%	1%	
Lightolier (Philips)	Momentum (120V ONLY)	ZP600FAM120	100% - 0.1%	1%	
Merten	Electronic potentiometer	5729	100% - 0.1%	1%	
Pass & Seymour	Titan	CD4FB-W	100% - 0.1%	1%	
Watt Stopper	Miro	DCLV1	100% - 0.1%	1%	
Synergy	Wallbox Dimmers	ISD BC	100% - 0.1%	1%	
ABB	i-bus	SD/S 2.16.1	100% - 0.1%	1%	
Crestron	Modules	GLX-DIMFLV8, GLXP-DIMFLV8	100% - 0.1%	1%	
Crestron	Green Light	GLPAC-DIMFLV4-, GLPAC-DIMFLV8-	100% - 0.1%	1%	
Crestron	Green Light Power Pack	GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM	100% - 0.1%	1%	
Crestron	DIN Rail Analog Output Module	DIN-A08	100% - 0.1%	1%	
Crestron	DIN Rail 0-10V Fluorescent Dimmer	DIN-4DIMFLV4	100% - 0.1%	1%	
Crestron	iLux 0-10V Dimmer Expansion Module	CLS-EXP-DIMFLV	100% - 0.1%	1%	
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%	

DIMMING DRIVER WIRING SCHEMES:

NOTES: Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.





DIMMING DRIVER COMPATIBILITY SELECTION GUIDE D7 / DIML7 and D7E

DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS

- SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

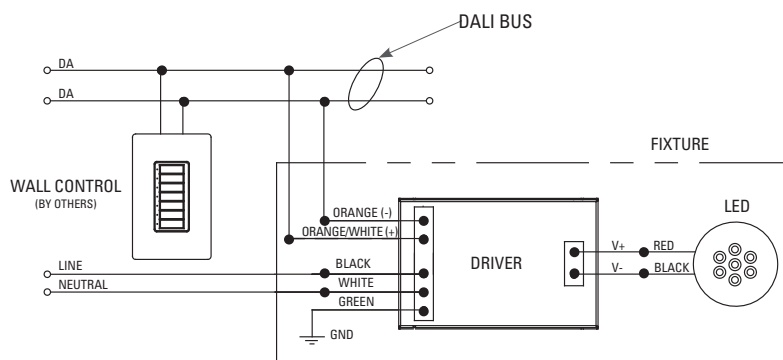
D7 / DIML7 and D7E Dimming Driver Wiring

D7 / DIML7 and D7E are linearly programmed dimming drivers.

D7 / DIML7 = EldoLED SOLOdrive DALI control dims from 100% to 0.1%

D7E = EldoLED ECOdrive DALI control dims from 100% to 1%

D7 / DIML7 / D7E DALI CONTROLS





DIMMING DRIVER COMPATIBILITY SELECTION GUIDE D18

DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS

- SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D18 Dimming Driver Wiring

D18 are programmed dimming drivers.

D18 Moons DMX control dims from 100% to 1%

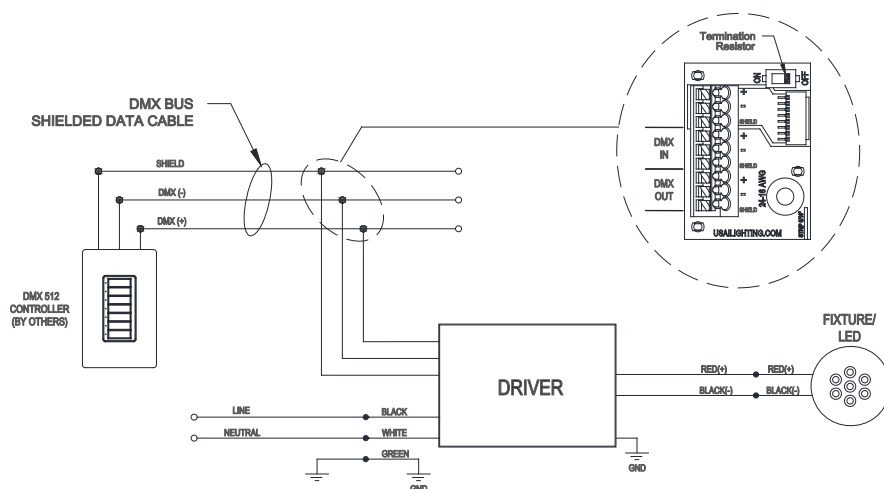
DMX BUS - SHIELDED DATA CABLE

The data cable used must meet the following requirements:

- type: shielded, 2-conductor twisted pair
- maximum capacitance between conductors: 30 pF/ft
- maximum capacitance between conductor and shield: 55 pF/ft
- maximum resistance: 0.02 ohms/ft
- normal impedance: 100-140 ohms
- conductive core: 24 AWG is recommended

If 3-wire data cables are preferred, we suggest a Belden 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Do not use standard microphone cables: they cannot transmit DMX512 data reliably over long distances. NOTE: DMX link termination device, provided through Dip Switch on connection board, should be used on last fixture in line on a circuit to avoid signal loss.

D18 DMX CONTROLS



USAI
Lighting

DIMMING DRIVER COMPATIBILITY
SELECTION GUIDE
D19 / DIML19

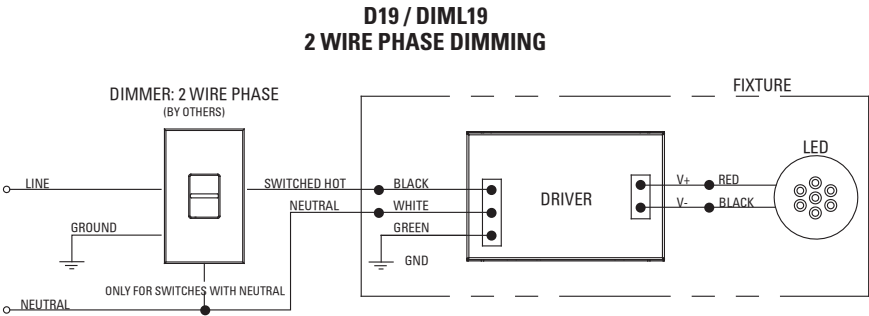
DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS
- SAVE THESE INSTRUCTIONS

- 1. Keep these instructions in a safe place for future reference.
- 2. Only qualified electricians in accordance to local codes should install these fixtures.
- 3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
- 4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
- 5. Cap any wires not used separately (not together).

D19 / DIML19 LED: Hatch XTC series or equivalent - Forward and Reverse Phase Dimming Driver.
Dims down to 1% contingent upon dimmer specification and load. 120V only.



D19 / DIML19 Dimmer Compatibility Chart		
120V ONLY		
Forward Phase / TRIAC Dimming		
Manufacturer	Product	Qty Fixtures Per Dimmer
Leviton	IPL06-10Z	Use fixture wattage per
	6613-xxx	fixture specification
Lutron	S-600P	sheet to determine
	S-603P	number of fixtures
	DVSC-603P	per dimmer. Max number
	CT-600P	of fixtures is limited by
	CT-603P	dimmer load rating.

120V ONLY		
Reverse Phase / ELV Dimming		
Manufacturer	Product	Qty Fixtures Per Dimmer
Leviton	6615	Use fixture wattage per
	IPE04-xxx	fixture specification
Lutron	NTELV-300	sheet to determine
	NTELV-600	number of fixtures
	SELV-300P	per dimmer. Max number
	SELV-303P	of fixtures is limited by
	DVELV-300P	dimmer load rating.
	DVELV-303P	

NITE STAR (MR16)

IP66 RATED

DATE:

PROJECT:

TYPE:

CATALOG NUMBER LOGIC:



CATALOG NUMBER LOGIC

NS - 502 - BLP

SERIES

NS - Nite Star

LAMP TYPE

0 - By Others

500 - 7W/15DEG/2700K

501 - 7.5W/25DEG/2700K

502 - 7.5W/35DEG/2700K

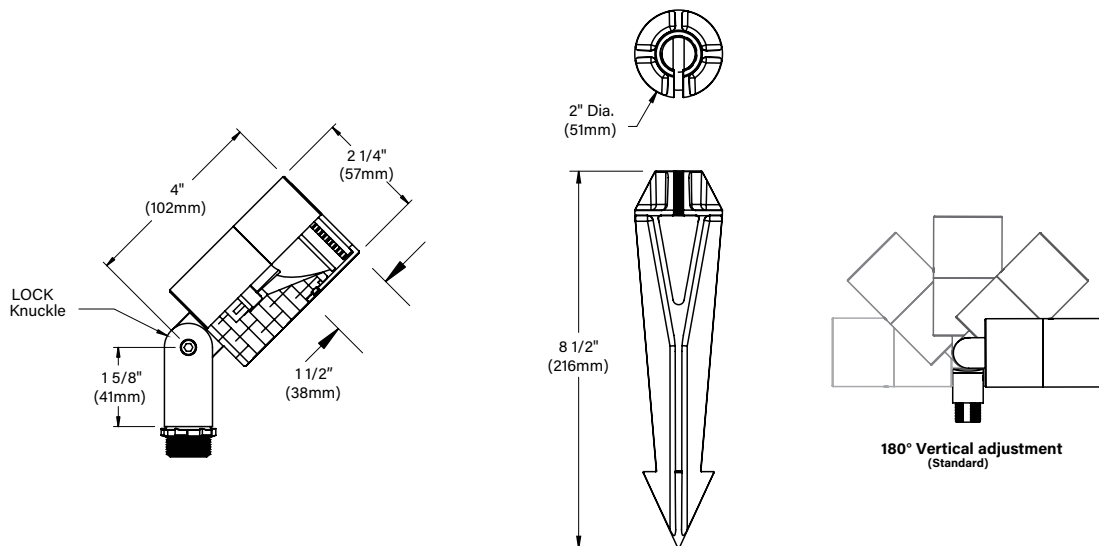
503 - 7W/15DEG/3000K

504 - 7.5W/25DEG/3000K

505 - 7.5W/35DEG/3000K

FINISH (See below for full-color swatches)

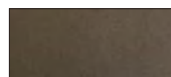
Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER)



STANDARD FINISHES



Satin Black (BLP)



Satin Bronze (BZP)



Satin White (WHP)



Satin Aluminum (SAP)



Black Wrinkle (BLW)



Bronze Wrinkle (BZW)



White Wrinkle (WHW)



Verde (VER)

[Click here](#) to view larger color swatches of these finishes on our website

B-K LIGHTING

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF B-K LIGHTING, INC. AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IS STRICTLY FORBIDDEN.

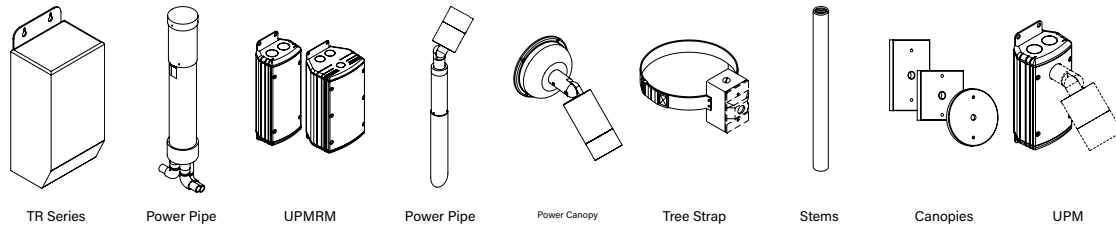
05/12/2021 SKU-320

NITE STAR (MR16)

IP66 RATED

DATE:	PROJECT:	TYPE:
-------	----------	-------

Accessories (Configure separately)



SPECIFICATIONS

ELECTRICAL	WATTAGE WIRING TRANSFORMER	7W or 7.5W Teflon® coated wire, 18AWG, 600V, 250° C rated and certified to UL 1659 standard. For use with 12 VAC remote transformer.
PHYSICAL	MATERIALS BODY KNUCKLE CAP LENS SOCKET LAMP TYPE HARDWARE FINISH WARRANTY CERTIFICATION & LISTING INCLUDED ITEMS	Furnished in copper-free aluminum (6061-T6). Unibody design is fully machined from solid billet and provides enclosed, water-proof wireway and heat sink to maximize lamp life. High temperature, silicone 'O' Ring provides watertight seal. LOCK Knuckle is comprised of two components. The first is integral to the body and features an interior, machined taper. The second is machined from solid billet and features a second, reverse angle taper. The resultant mechanical taper-lock allows a full 180° vertical adjustment without the use of serrated teeth, which inherently limit aiming. High temperature, silicone 'O' Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lb. static load prior to movement to ensure decades of optical alignment. ½" pipe thread for mounting. Fully machined with a flush mounted lens. Shock resistant, tempered, clear glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment. Specification grade, ceramic body lamp holder. GU5.3 base. Nickel allow contacts and heat resistant, spring loaded, stainless steel lamp retaining clips. MR16 Green Creative LED Lamp, Title 20 and Title 24, JA8 compliant. Compatible with 50 watt maximum, MR16 lamp.* Not for use with IR technology lamps. Halogen sourced by others. *Except GE Light Q42MR16/C/VNSP9 (EZY). Tamper-resistant, stainless steel hardware. LOCK aiming screw is black oxide treated for additional corrosion resistance. StarGuard, our 15-stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating and is RoHS compliant. 5-year limited warranty. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Title 24 and JA8 compliant (when using factory lamp options). Suitable for indoor or outdoor use, in wet locations, and within 4' of the ground. Made in the USA with sustainable processes. Fixture, mounting stake, and Honeycomb Baffle accessory.



TITLE 24, JA8



RoHS



B-K LIGHTING

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF B-K LIGHTING, INC. AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IS STRICTLY FORBIDDEN.

05/12/2021 SKU-320

LED wall luminaires - symmetrical light distribution

BEGA

Application
LED wall luminaires with symmetrical light distribution designed for general illumination of pathways, plazas and building entrances.

Materials
Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Matte safety glass
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners
NRTL listed to North American Standards, suitable for wet locations
Protection class IP65
Weight: 4.0lbs

Electrical

Operating voltage

120-277VAC

Minimum start temperature

-30° C

LED module wattage

8.9W

System wattage

11.0W

Controllability

0-10V dimmable

Color rendering index

Ra> 80

Luminaire lumens

938 lumens (3000K)

Lifetime at Ta= 15° C

190,000 h (L70)

Lifetime at Ta= 50° C

165,000 h (L70)

LED color temperature

☐ 4000K - Product number + **K4**

☐ 3500K - Product number + **K35**

☐ 3000K - Product number + **K3**

☒ 2700K - Product number + **K27**

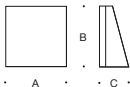
BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors

☐ Black (BLK)
☐ White (WHT)
☐ RAL:

☐ Bronze (BRZ)
☐ Silver (SLV)
☐ CUS:



LED wall luminaire · symmetrical light distribution

	LED	A	B	C
24218	ADA 8.9W	8	8	3¾



Time and Temperature Hotel

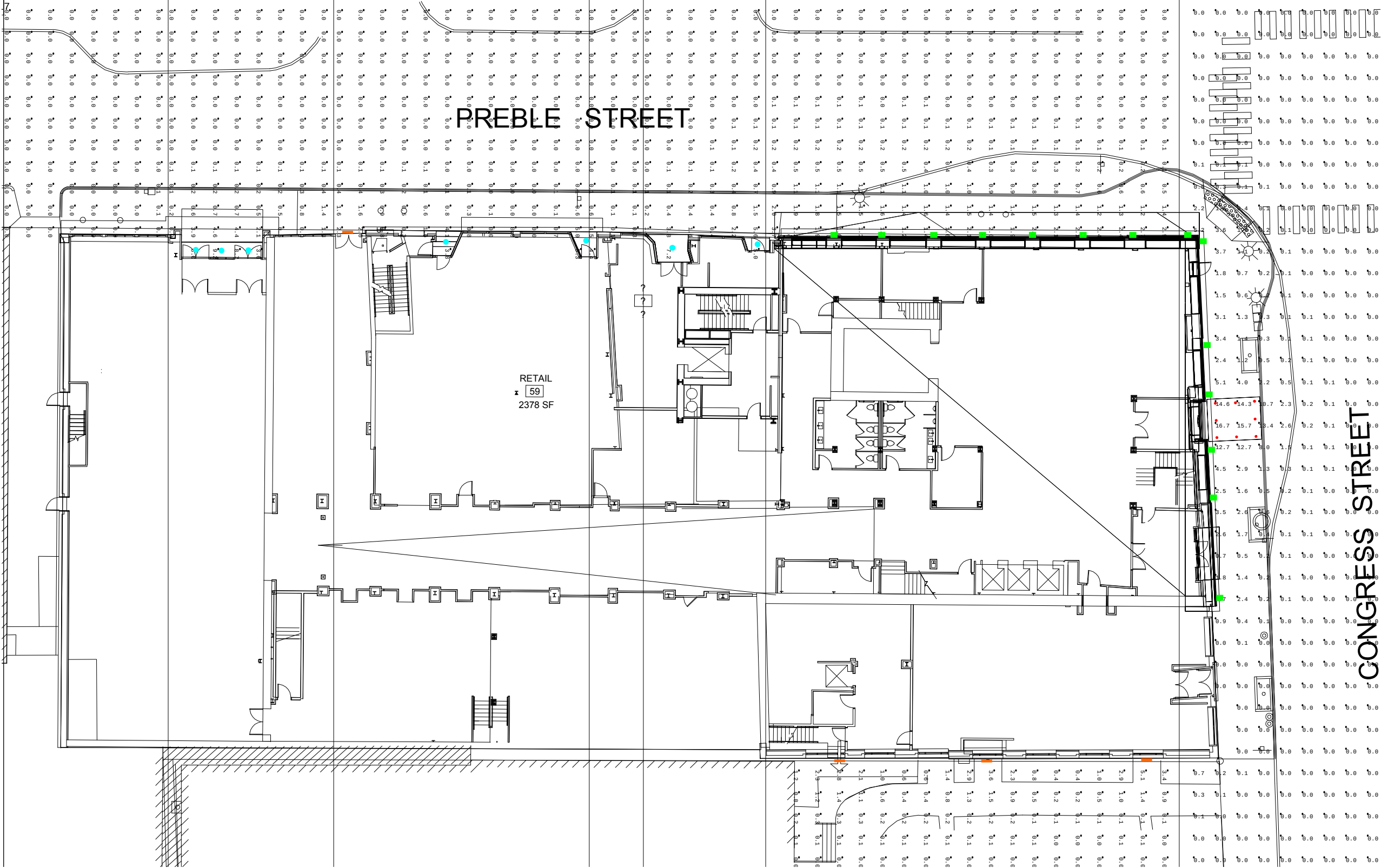
Exterior Preliminary Photometrics

2021.07.30



Overall Site

These Lighting Calculations include ONLY the fixtures mounted to the lowest level of the building. This calculation does not include any city street lighting or high-mounted decorative facade lighting that will not impact light levels at the sidewalk and street area.



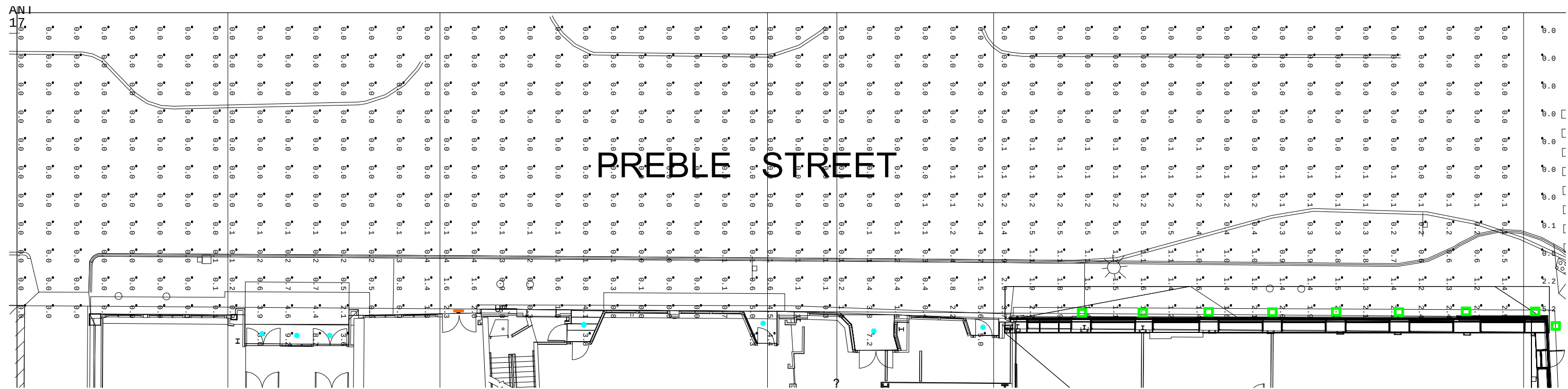
Congress Street



Luminaire Schedule - Building Base					
Symbol	Qty	Tag	Description	Lum. Lumens	LLF
	14	Pedestrian Level Deco Sconce	Modern Forms WS-41918	964	0.855
	8	Canopy Cylinders	BK-NS-LED-e66-WFL-12	462	0.855
	4	Wall Mount	Bega 24218	989	0.855
	8	Recessed Light	USAI_ B4RDF-16G1-30KS-50-S-WH-NCIC-UNV	739	0.855



Preble Street



Luminaire Schedule - Building Base					
Symbol	Qty	Tag	Description	Lum. Lumens	LLF
	14	Pedestrian Level Deco Sconce	Modern Forms WS-41918	964	0.855
	8	Canopy Cylinders	BK-NS-LED-e66-WFL-12	462	0.855
	4	Wall Mount	Bega 24218	989	0.855
	8	Recessed Light	USAI_ B4RDF-16G1-30KS-50-S-WH-NCIC-UNV	739	0.855

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

WOODARD & CURRAN

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR DISTRIBUTION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

REV	DESCRIPTION	DATE
1	RESPONSE TO CITY COMMENTS	07/30/21
2	RESPONSE TO CITY COMMENTS	07/16/21

DESIGNED BY: ANL
CHECKED BY: DBS
DRAWN BY: JEC

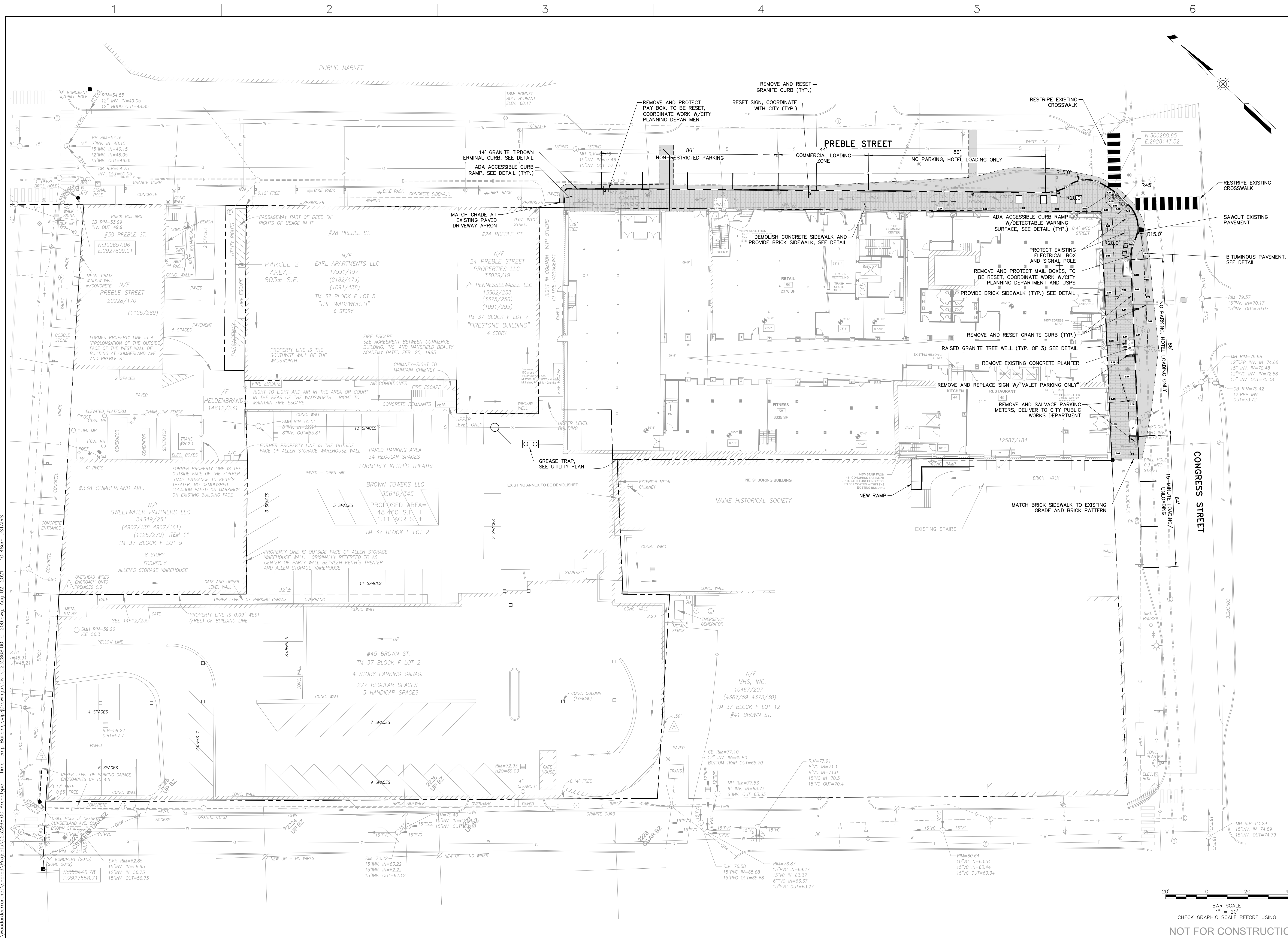
OVERALL SITE PLAN

477 CONGRESS HOTEL
PORTLAND, MAINE

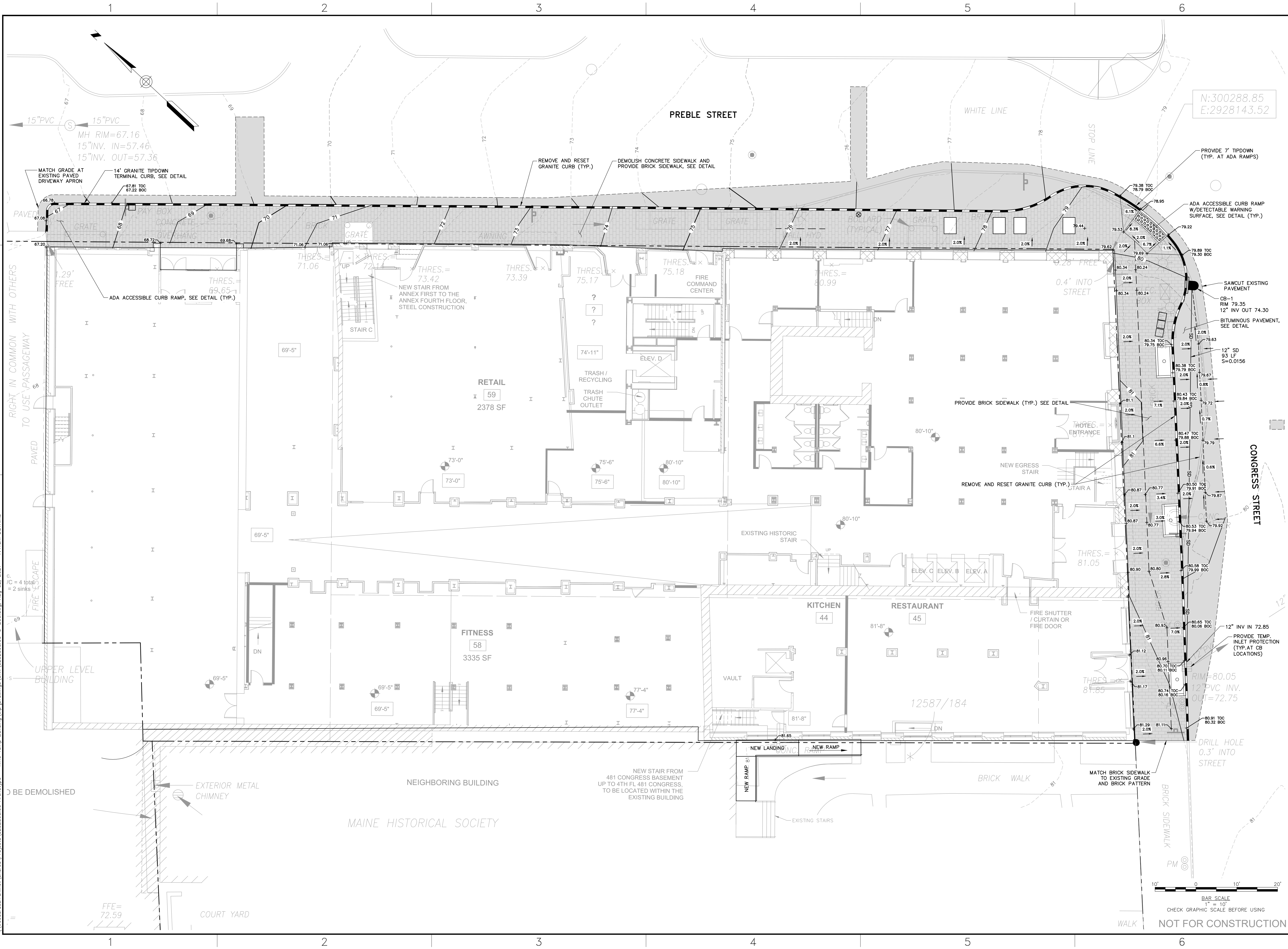
TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232868.00
DATE: APRIL 2021
SCALE: 1" = 20'
SHEET: 2 OF 7

C-200



woodardcurran.net\shared\Projects\0232868.00_C-200.dwg, Aug. 02, 2021 - 10:48am DSTAIRS



41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR DISTRIBUTION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

REV	DESCRIPTION	DATE
1	RESPONSE TO COMMENTS	07/16/21
2	RESPONSE TO COMMENTS	07/30/21

DESIGNED BY: ANL

CHECKED BY: DBS

DRAWN BY: JEC

02282668.00-C-200.4m

GRADING, DRAINAGE AND EROSION CONTROL PLAN

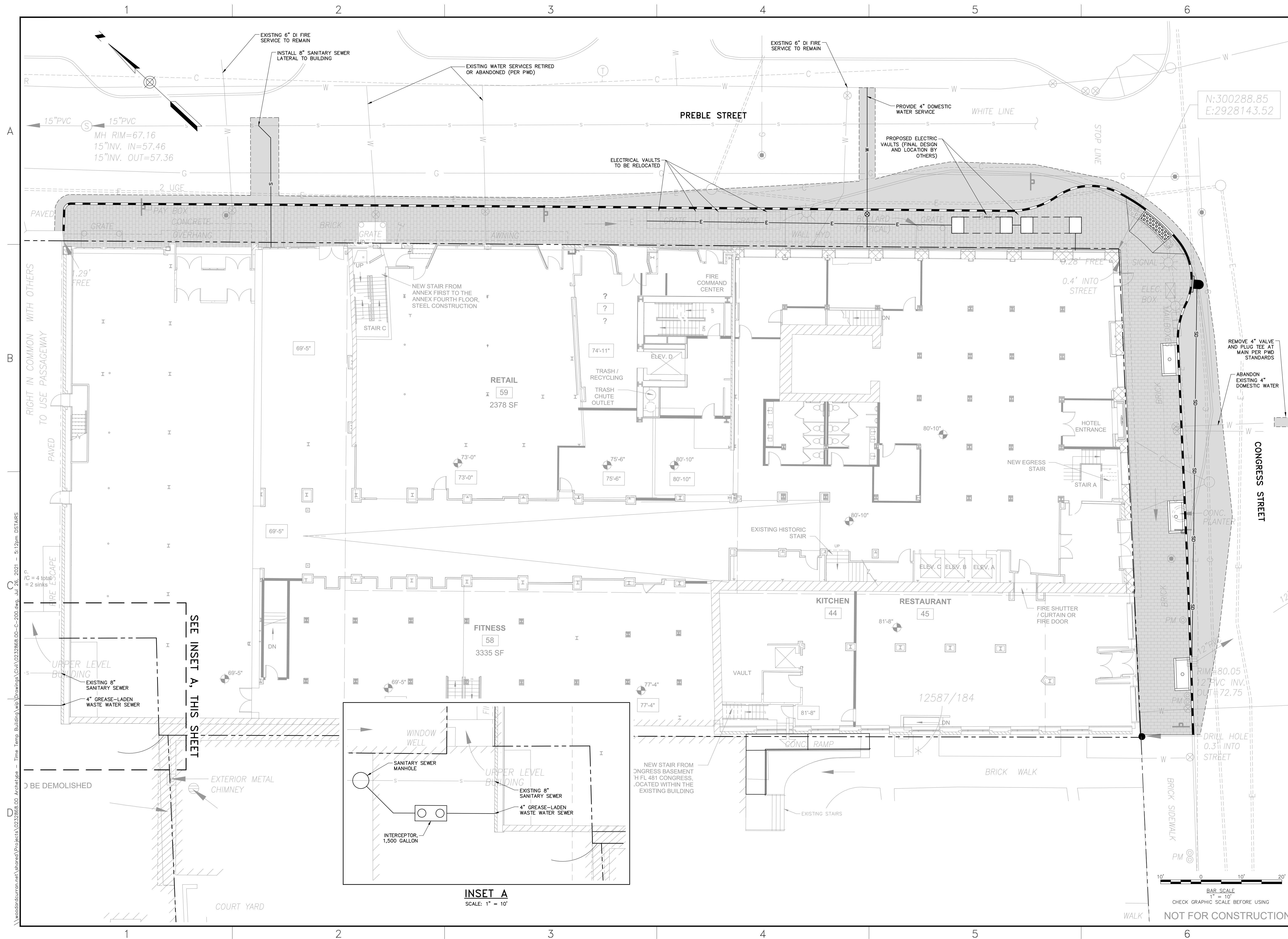
477 CONGRESS HOTEL
PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 02282668.00
DATE: APRIL 2021
SCALE: 1" = 10'
SHEET: 3 OF 7

C-201

woodardcurran.net\shared\Projects\02282668.00 Architecture - Time Temp Building\vip\Drawings\Civil\02282668.00-C-200.4m.dwg, Aug. 02, 2021 - 7:11am D5TARS





N.T.S

1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MAINE D.O.T. CLASS A STRUCTURAL CONCRETE. MINIMUM CURB STRENGTH 4,000 PSI. THE EXPOSED SURFACE OF THE DETECTABLE WARNING PLATE SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOWNS SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE PLATE WIDTH SHALL EXTEND THE WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED IN THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



NOTES:

1. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
2. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10-INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
3. CURBING SHALL BE SET IN 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
4. WOODEN SHIMS MAY BE USED TO SET CURB.
5. SUBGRADE TO BE 95% COMPACTED.



1. SEE LANDSCAPE PLANS FOR GRANITE PAVER SECTIONS.
2. PROVIDE MIN. 48" OF STRUCTURAL FILL BENEATH ANY BRICK SIDEWALK SECTION WITHIN 6 FEET OF AN EXTERIOR DOOR, ALL DIRECTIONS.
3. PROVIDE MIN. 48" OF STRUCTURAL FILL BENEATH ANY BRICK SIDEWALK SECTION WITHIN 6 FEET OF AN EXTERIOR DOOR, ALL DIRECTIONS.

N.T.S.

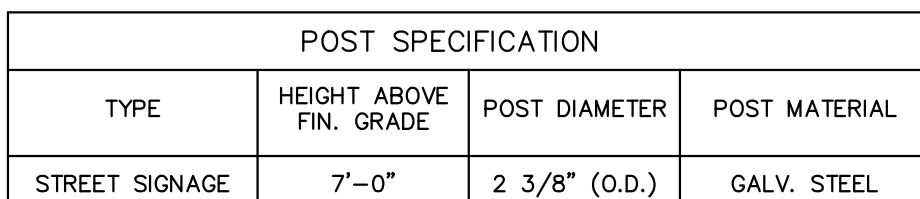


- NOTES:
1. GREASE TRAP SHALL BE GGI-2000 MODEL BY SCHIER, OR APPROVED EQUAL.
 2. GREASE TRAP SHALL BE PROVIDED WITH RISERS AS NECESSARY TO ACCOMMODATE DEFINED INVERTS.
 3. GREASE TRAP AND ASSOCIATED COVERS AND RISERS SHALL BE PROVIDED FOR H-20 LOADING.

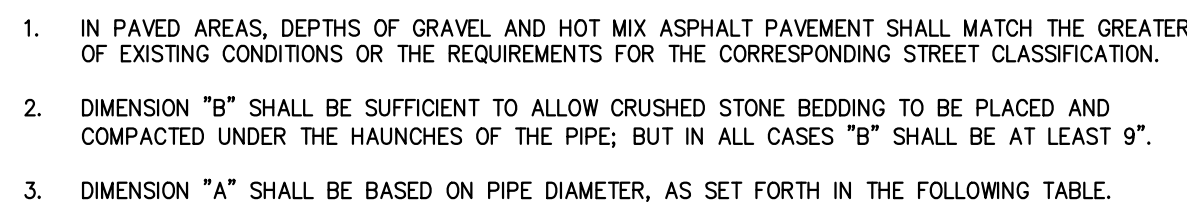
N.T.S.



N.T.S.



N.T.S.



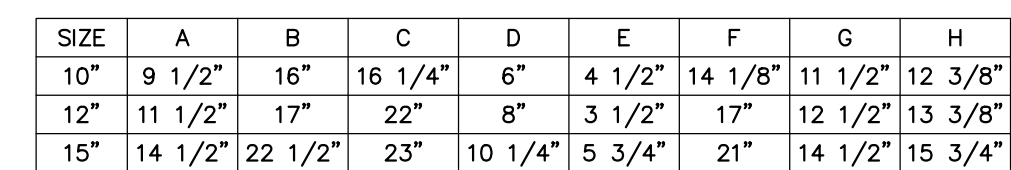
NOTES:

ANY ALTERNATE TRENCHING SHALL BE APPROVED IN ADVANCE
BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.



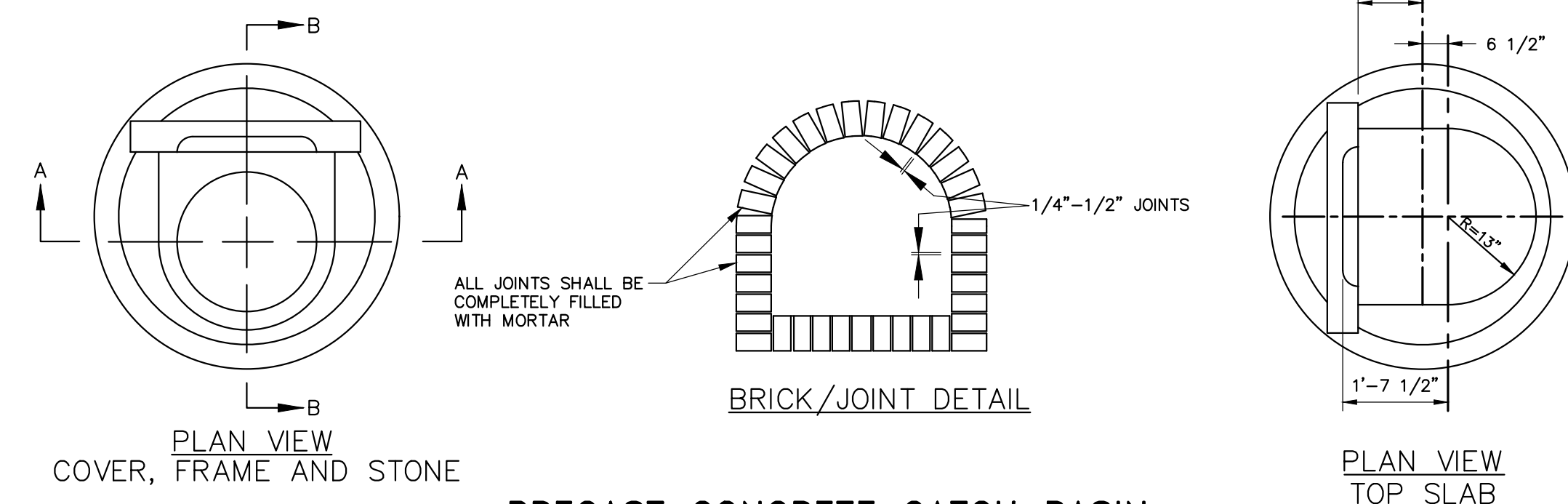
1. GRIND EXISTING PAVEMENT, 2" DEPTH.
2. PROVIDE BITUMINOUS TACK COAT ON VERTICAL AND HORIZONTAL SURFACES PRIOR TO PAVING.
3. DETAIL APPLICABLE TO PAVEMENT BUTT JOINTS AT ROADWAY WORK LIMITS. REFER TO PIPE INSTALLATION DTL. OR PAVED ROAD SECTION DTLs. FOR TRENCH REPAIR REQUIREMENTS.

N.T.S.

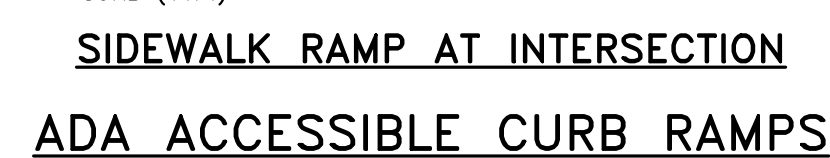


1. CASCO TRAP SHALL BE CAST IRON CASCO TRAP BY ETHERIDGE FOUNDRY OR APPROVED EQUAL.
2. BOLT AND NUT REQUIRED WHERE HOOD WILL NOT OPEN COMPLETELY.
3. CASCO TRAP SHALL BE INSTALLED ON ALL CATCH BASIN OUTLET PIPES, INCIDENTAL TO COST OF CATCH BASIN

N.T.S.



N.T.S



1. ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
3. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
4. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE AN COAT OF ANCHOR PATCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
5. MANHOLES SHOULD BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
6. CONTRACTOR SHALL SUBMIT ANTIMONY CALCULATIONS FOR ALL MANHOLE AND CATCH BASIN STRUCTURES.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION, OFFSET, AND STRUCTURE ID PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED PICH HOLE.
9. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. WHEN THE FLOW CHANGES DIRECTION IN A MANHOLE, THE CHANNEL ALIGNMENT SHALL FOLLOW A SMOOTH RADIUS. CHANNELS SHALL BE FORMED TO ACCEPT ALL INLET PIPES.
11. ON STORM AND SEWER MANHOLES, THE SHELF AND CHANNEL SHALL BE FORMED BY BRICK SET IN CEMENT MORTAR OR BY FACTORY PRE-CAST CONCRETE. SHELF PRE-CAST CONCRETE SHALL BE EPOXY GRouted AND THE SHELF SHALL HAVE A PERMANENT NON-SKID SURFACE.



A

B

C

D

EROSION AND SEDIMENT CONTROL NOTES

Temporary Erosion Control

Contractor shall prepare and submit a soil erosion and water pollution control plan to engineer

Measure	Dates For Use	Timing, Activity, and Location
Sedimentation Barrier	ALL	Before soil disturbance, install downhill of areas to be disturbed and around material stockpiles.
Up-slope Diversion	ALL	Before soil disturbance, install uphill of areas to be disturbed and material stockpiles.
Catch Basin Protection	ALL	Before soil or pavement disturbance, install ACF Environmental, Inc. High Flow Siltsock, Siltsover Inlet Filter, or equal, installed per manufacturer's requirements.
Dust Control	ALL	During dry weather, apply water and calcium chloride to control dust.
Temporary Seeding	April 15 to Oct. 1	Soil stockpiles that are not covered and disturbed areas that will not be disturbed again within 14 days. If grass growth provides less than 95% soil coverage by Nov. 1, apply mulch and anchor with erosion control blanket.
Mulch	April 15 to Sept. 15	On all areas of exposed soil prior to rain events or every 7 days, apply 100-150 lbs (2.5 bales) per 1,000 sq ft. by mechanical blower.
Winter Mulch	Sept. 16 to Oct. 31	On all areas of exposed soil prior to precipitation or every 7 days, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. by mechanical blower. Erosion control blanket may be used as a substitute for winter mulch.
	Nov. 1 to April 14	On all areas of exposed soil, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. and anchor with netting at the end of each working day. Erosion control blanket may be used as a substitute for winter mulch.
Inspections	Until site is permanently stabilized	Inspect the erosion and sedimentation control measures per inspections table below, and maintain and repair as necessary.

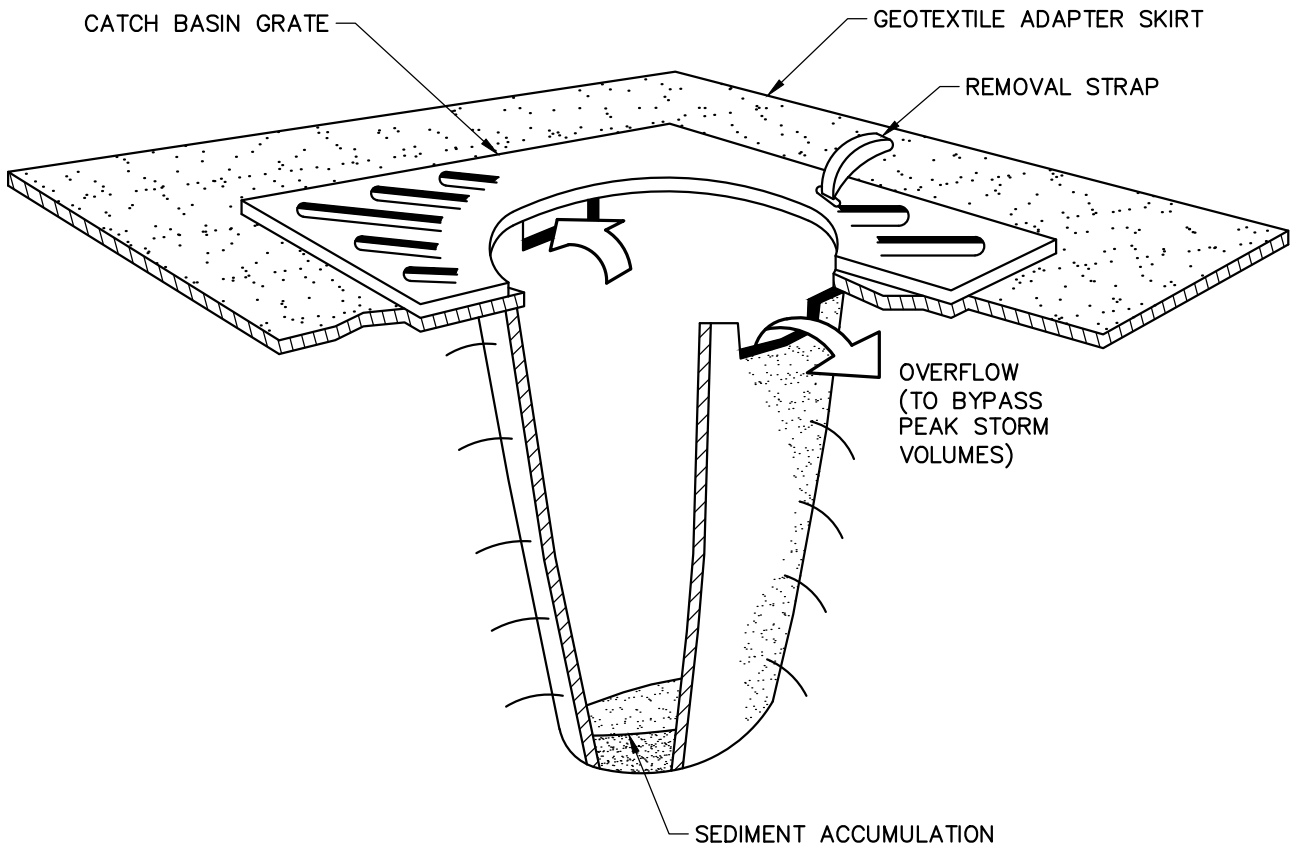
Permanent Erosion Control:

Measure	Dates For Use	Timing, Activity, and Location
Pavement – Base Course – Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after pavement base is brought to final grade. Install near completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

Inspections:

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of rivulets.
Sediment Barrier	Sediment build-up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.
Catch Basin Protection	Sediment build-up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.
Dewatering Filter	Breaks in fabric or supporting structure. Slow flow, indicating high sediment build-up.
Construction Entrance	Sedimentation of roadways. Off-site dust complaints.



NOTES:

CATCH BASIN PROTECTION TO BE "SILTSAK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES).

INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/2 FULL OF SEDIMENT.

INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

TEMPORARY INLET PROTECTION

N.T.S.

EROSION AND SEDIMENTATION CONTROL NOTES

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATTING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERMS, PLUNGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCHBASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMDRAIN AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

GENERAL

- THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE MAINE CONSTRUCTION GENERAL PERMIT, IF APPLICABLE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS.
- ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
- THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.
- CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
 - FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNIFORM STAND OF PERMANENT GRASS SPECIES, FREE FROM SIZEABLE THIN OR BARE SPOTS.
 - FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE OFF.
 - FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
 - FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
 - FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
 - FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE, PERMANENT STABILIZATION MEANS THE CHANNELIZED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.
- IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOD OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED, OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3" OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.

- PERMANENT SEEDING SPECIFICATION: IT IS RECOMMENDED THAT PERMANENT SEEDING BE COMPLETED BETWEEN APRIL 1 AND AUGUST 15 OF EACH YEAR. LATE SEASON SEEDING MAY BE DONE BETWEEN AUGUST 15 AND SEPTEMBER 15. AREAS NOT SEEDDED OR WHICH DO NOT OBTAIN A SATISFACTORY GROWTH BY OCTOBER 1 SHALL BE SEEDDED WITH AROOSTOCK WINTER RYE OR MULCHED AT SPECIFIED RATES. SEE WINTER SEEDING AND MULCHING SPECIFICATIONS FOR STABILIZATION AFTER NOVEMBER 1.
 - APPLY TOPSOIL TO A DEPTH OF 4 INCHES. IN COMPACTED AREAS TILL 2-3" OF COMPOST INTO UPPER 8" OF DISTURBED SOIL AND THEN APPLY 4 INCHES OF TOPSOIL.
 - APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TESTS, APPLY GROUND LIMESTONE AT A RATE OF 33 LBS PER 1000 SQUARE FEET AND GRANULAR, COMMERCIAL-GRADE FERTILIZER 10-10-10 AT A RATE OF 18 LBS PER 1000 SQUARE FEET.
 - UNIFORMLY APPLY SEED MIXTURE AT THE RECOMMENDED SEEDING RATES AND DATES, APPLY HAY OR STRAW MULCH AT A RATE OF 2.5 BALES PER 1000 SQUARE FEET AND ANCHOR AS NECESSARY.
- PROTECT ALL SEEDED AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING OR SODDING TO AVOID FAILURE DUE TO SUMMER DROUGHT AND FALL FROST. NEWLY SEEDED AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.
- DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN SISON OR APPROVED EQUAL. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.

WINTER CONDITIONS

- WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 1. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.

GOOD HOUSEKEEPING AND POLLUTION PREVENTION

- SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.
- DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL, DIKES, BERMS, SLUMPS AND OTHER FORMS OF TEMPORARY SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
- LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.
- LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNED CONSTRUCTION DEWATERING DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK.
- SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEEPED FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.

INSPECTION AND MAINTENANCE

- A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, INCLUDING THE STANDARDS IN THE MAINE CONSTRUCTION GENERAL PERMIT, THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK OR ANY MUNICIPAL REQUIREMENTS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF ADDITIONAL BMPs OR MODIFICATIONS TO BMPs ARE NECESSARY, THE MODIFICATIONS MUST BE IMPLEMENTED WITH 7 CALENDAR DAYS OR PRIOR TO ANY PRECIPITATION EVENT. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT BY THE CONTRACTOR, SUMMARIZING THE SCOPE OF THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO THE OPERATION OF EROSION AND SEDIMENT CONTROL BMPs, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE CONSTRUCTION AREA. THE INSPECTION LOG SHOULD BE DELIVERED TO THE PROPERTY OWNER OR RESPONSIBLE CONTRACTING ENTITY UPON COMPLETION OF THE PROJECT.

DEWATERING

- ANY DEWATERING FLOW DIRECTED TO THE CITY'S COMBINED SEWER SYSTEM SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICES AND/OR THE PORTLAND WATER DISTRICT PRIOR TO COMMENCING DEWATERING ACTIVITIES.

CIVIL DETAILS - 3

477 CONGRESS HOTEL
PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232868.00
DATE: APRIL 2021
SCALE: AS NOTED
SHEET: 7 OF 7

C-302

NOT FOR CONSTRUCTION

Via Electronic Mail

July 15, 2021



Department of Planning & Development
Attn: Shukria Wiar
City of Portland
389 Congress Street
Portland, ME 04101

Re: Time & Temperature Hotel, 477 Congress Street - Neighborhood Meeting Certification

Ms. Wiar:

I, Darrin Stairs, PE of Woodard & Curran, hereby certify that a neighborhood meeting was held on July 14, 2021, virtually via Microsoft Teams platform, at 6:00 pm regarding the Major Site Plan Submittal for the proposed Time & Temperature Hotel project located at 477 Bedford Street.

I also certify that on July 1, 2021, invitations were mailed to the following:

1. All addresses on the abutters list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the "interested parties" list.

Signed,

WOODARD & CURRAN INC.

Darrin Stairs, PE
Project Manager

Attached to this certification are:

1. Copy of the invitation sent
2. Meeting Attendance Report from MS Teams Meeting
3. Meeting Notes



June 25, 2021

Dear Neighbor:

On behalf of the TT Maine Venture, LLC (Applicant), please join us for a neighborhood meeting to discuss the applicant's plans to renovate the properties at 477-481 Congress Street and 22 Preble Street, into a hotel with associated amenity spaces, retail, and restaurant. A Major Site Plan Application for the development has been filed with the City of Portland Planning Division on behalf of the Applicant.

Meeting Location: Virtual Microsoft Teams Meeting – Please email Darrin Stairs at dstairs@woodardcurran.com to request a link to the meeting.

Meeting Date: Wednesday, July 14, 2021

Meeting Time: Meeting link will open at 5:50 PM, EST; Presentation to begin at 6:00 PM EST

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. Attendance will be taken, and minutes recorded and submitted to the Planning Board.

If you have any questions, please contact Darrin Stairs at (207) 558-3662 or via email at dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN INC.

Darrin Stairs, PE
Project Manager

Note: Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days 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 or by email: to jrather@portlandmaine.gov.

Meeting Summary

Total Number of Participants 22
Meeting Title 477-481 Congress Street/22 Preble Street (Time & Temperature Building) Hotel - Neighborhood Meeting
Meeting Start Time 7/14/2021, 5:45:18 PM
Meeting End Time 7/14/2021, 7:03:50 PM

Full Name	Join Time	Leave Time	Duration	userPrincipalName	Role
Darrin Stairs	7/14/2021, 5:45:18 PM	7/14/2021, 6:43:55 PM	58m 37s	dstairs@woodardcurran.com	Organizer
Peter Marcus Kimball Court (Guest)	7/14/2021, 5:51:34 PM	7/14/2021, 6:44:05 PM	52m 31s		Attendee
Gerry (Guest)	7/14/2021, 5:51:34 PM	7/14/2021, 6:36:22 PM	44m 47s		Attendee
Chuck Steward (Guest)	7/14/2021, 5:51:35 PM	7/14/2021, 5:51:54 PM	19s		Attendee
12072723262	7/14/2021, 5:51:39 PM	7/14/2021, 5:52:05 PM	26s		Attendee
12072723262	7/14/2021, 5:53:39 PM	7/14/2021, 5:56:24 PM	2m 45s		Attendee
Jennifer Packard	7/14/2021, 5:52:43 PM	7/14/2021, 6:43:38 PM	50m 55s	jp@pkrealtymgmt.com	Attendee
Beverley Ricci (Guest)	7/14/2021, 5:54:52 PM	7/14/2021, 6:43:55 PM	49m 2s		Attendee
Chuck Steward (Guest)	7/14/2021, 5:55:52 PM	7/14/2021, 6:43:51 PM	47m 58s		Attendee
Ginny Stanley (Guest)	7/14/2021, 5:56:01 PM	7/14/2021, 6:43:47 PM	47m 45s		Presenter
Drew Swenson	7/14/2021, 5:57:35 PM	7/14/2021, 6:43:41 PM	46m 5s	dswenson@FTS-US.COM	Attendee
David Lloyd	7/14/2021, 5:57:55 PM	7/14/2021, 6:43:40 PM	45m 45s	admin@Archetypepacom.onmicrosoft.com	Attendee
Alison Henault	7/14/2021, 5:59:20 PM	7/14/2021, 6:37:42 PM	38m 21s		Attendee
Jason Raichle (Guest)	7/14/2021, 5:59:21 PM	7/14/2021, 6:43:40 PM	44m 19s		Attendee
Marieke Thormann	7/14/2021, 5:59:22 PM	7/14/2021, 6:43:37 PM	44m 15s	mthormann@fathomcompanies.com	Attendee
Steve Landry	7/14/2021, 5:59:23 PM	7/14/2021, 6:43:42 PM	44m 18s	slandry@mainehistory.org	Attendee
12079393782	7/14/2021, 6:00:01 PM	7/14/2021, 6:43:38 PM	43m 37s		Attendee
Larry Casillo (Guest)	7/14/2021, 6:00:03 PM	7/14/2021, 6:43:39 PM	43m 36s		Attendee
12079396811	7/14/2021, 6:00:58 PM	7/14/2021, 6:43:39 PM	42m 41s		Attendee
David Packard	7/14/2021, 6:01:08 PM	7/14/2021, 6:43:41 PM	42m 33s	dpackard@pkrealtymgmt.com	Attendee
chris (Guest)	7/14/2021, 6:16:59 PM	7/14/2021, 6:43:37 PM	26m 37s		Attendee
Andrew Preston	7/14/2021, 6:16:59 PM	7/14/2021, 7:03:50 PM	46m 50s	apreston@heliossvcs.com	Attendee
Ed Gardner	7/14/2021, 6:35:19 PM	7/14/2021, 6:45:20 PM	10m		Attendee



MEETING MEMORANDUM

PROJECT: Time and Temperature Building -
477 Congress Street

MEETING DATE: 7/14/2021

LOCATION: Virtual Neighborhood Meeting

ISSUED DATE: 7/15/2021

PRESENTERS:

Darrin Stairs – Civil Engineer
Marieke Thormann – Owners' Representative
David Llyod – Architect
Virginie Stanley – Architect
Andrew Preston – Building Owner
Larry Casillo – Hotel Operator

ATTENDEES:

Steve Landry - Maine Historical Society
Jennifer Packard - PKRM LLC
David Packard - PKRM LLC
Ellen Thompson - Northland Enterprises & Management
Drew Swenson - Paragon Management LLC
Christopher Leahy - Portland Land Development LLC
Chuck Steward - MRM Equity
Jason Raichle - Connecticut River Capital LLC
Peter Marcus
Beverley and Mike Ricci
Gerry Soule

A Neighborhood Meeting, hosted virtually, took place on Wednesday, July 14, 2021 at 6:00 pm in which presenters gave an overview of the Time and Temperature Building project.

The following are questions and comments received from attendees:

1. Question about sign on roof and concern about light shining in their unit in Kimball Court. Explained that the sign is historically protected and will remain. There will be an upgrade in electronics of sign.
2. Questions about when construction will start and which streets will be closed off. Answered by presenters and noted that a construction management plan will be submitted thru the planning process.
3. Question of how valet parking will work and where cars will be parked. System explained by operator and graphically shown.
4. Questions about rooftop bar and if a design for seagull control is being considered. Excellent question. Designers will consider and incorporate. Roof top operation explained and graphically shown in plan.
5. Question asked about any provisions for bus drop-off considered. Provisions will be looked at.



6. Question about impact on neighboring Maine Historical Society. Explained that owners have been in contact with Maine Historical Society and negotiating easements as needed during and after construction.
7. Comments made that this will be a great improvement to the neighborhood and City of Portland.
8. Question about gas meter location and to not have it located by the front door.
9. Question about cleaning of exterior of the building. Explained that any cleaning will be completed under the rules of the National Park Service.
10. Question about the location of mechanical roof top units.
11. Question about which street will be used for moving operations.



April 30, 2021

James Rather
City of Portland Development Review Services Manager
389 Congress Street
Portland, ME 04101

Re: TT Maine Venture, LLC – Time & Temperature Building
Major Site Plan Application

Dear James:

On behalf of Presidium, Woodard & Curran is pleased to submit the Time & Temperature Building project located at 477 – 481 Congress Street and 22 Preble Street in Portland, Maine for review of a Level III Site Plan Application.

The proposed project will include renovations and change in use for the properties, from multi-use commercial to hotel and multi-use commercial. The new uses will include a 196-room hotel and associated amenity spaces; new retail (approx. 4,700 SF); rooftop bar (approx. 5,100 SF) and restaurant (approx. 2,260 SF). The gross square footage including basements and sub basements is 202,000 square feet.

The Site Plan Application documents were prepared in accordance with the City of Portland's Land Use Code of Ordinances and the applicable sections of the City of Portland Design and Technical Manuals. The Application reports, attachments and design drawings will be uploaded into the Eplan folder when it is available for the project. If there are any questions on the uploaded materials, please do not hesitate to contact me.

Thank you for coordinating the review of this project. If you have any questions regarding this application, please feel free to contact me at (207) 558-3662 or by email at dstairs@woodardcurran.com.

Sincerely,

Darrin Stairs, PE
Project Manager

cc: Chris Rhodes, Andrew Preston – TT Ventures
Marieke Thormann – Fathom Companies
David LLoyd, Archetype PA



February 6, 2020

James Rather
City of Portland Development Review Services Manager
389 Congress Street
Portland, ME 04101

Re: TT Maine Venture, LLC – Time & Temperature Building
Level III Site Plan Application

Dear James:

On behalf of Presidium, Woodard & Curran is pleased to submit the Time & Temperature Building project located at 477 – 481 Congress Street and 22 Preble Street in Portland, Maine for review of a Level III Site Plan Application.

The proposed project will include renovations and change in use for the properties, from multi-use commercial, to hotel and multi-use commercial. The new uses will include a 181-room hotel and associated amenity spaces, new retail, and restaurant. The gross square footage including basements and sub basements 202,000 square feet.

In addition to the 181-room hotel, the proposed uses will include the following:

Proposed Use	Area (SF)
Meeting Space	4,400
Ball Room	5,341
Retail Space	7,800
Lobby and Bar	4,507
Restaurant	5,000
Bar (14 th Floor)	1,313
(Roof)	3,254

The Site Plan Application documents were prepared in accordance with the City of Portland's Chapter 14, Land Use Code of Ordinances and meet the applicable sections of the City of Portland Design and Technical Manuals. The Application reports, attachments and design drawings will be uploaded into the Eplan folder when it is available for the project. If there are any questions on the uploaded materials, please don't hesitate to contact me.

Thank you for coordinating the review of this project. If you have any questions regarding this application, please feel free to contact me at (207) 558-3662 or by email at dstairs@woodardcurran.com.

Sincerely,

Darrin Stairs, PE
Project Manager

cc: Chris Rhodes, Andrew Preston – TT Ventures
Patrick Vyncke – HRI Properties
David Lloyd, Architect, Archetype PA



41 Hutchins Drive
Portland, ME 04102
800-426-4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

Att. F

TIME & TEMPERATURE BUILDING

MAJOR SITE PLAN

477 Congress Street
481 Congress Street
22 Preble Street

Portland, ME

0232868.00
TT Maine Venture

April 2021

TABLE OF CONTENTS

SECTION	PAGE NO.
1. APPLICATION CHECKLIST	1-1
2. APPLICATION FEES	2-1
3. PROJECT SUMMARY	3-1
3.1 Project Site & Background	3-1
3.2 Proposed Project.....	3-1
3.3 Attachments	3-3
4. WAIVER REQUESTS	4-1
5. EVIDENCE OF RIGHT, TITLE & INTEREST	5-1
5.1 Attachments	5-1
6. EASEMENTS AND OTHER BURDENS	6-1
6.1 Attachments	6-1
7. EVIDENCE OF STATE AND/OR FEDERAL APPROVALS	7-1
8. EVIDENCE OF FINANCIAL & TECHNICAL CAPABILITY	8-1
8.1 Financial Capability	8-1
8.2 Technical Capability	8-1
8.3 Attachments	8-1
9. ZONING ASSESSMENT	9-1
9.1 Attachments	9-1
10. SITE PLAN STANDARDS ASSESSMENT	10-2
10.1 Determination of use	10-2
10.2 supplemental use standards (section 6.4 of Land Use Code)	10-2
10.3 Conditional use standards (section 6.5 of Land Use Code).....	10-2
10.4 Accessory uses (section 6.6 of Land Use Code)	10-2
10.5 Temporary uses (section 6.7 of Land Use Code)	10-3
10.6 Performance Standards (section 6.8 of Land Use Code)	10-3
11. SITE PLAN REVIEW STANDARDS	11-4
11.1 Transportation Standards.....	11-4
11.2 Environmental QUALITY STANDARDS.....	11-5
11.3 Public Infrastructure & COMMUNITY Safety STANDARDS	11-5
11.4 Site Design standards	11-6
11.5 Attachments	11-7
12. CONSTRUCTION MANAGEMENT PLAN	12-1
12.1 Attachments	12-1
13. BOUNDARY SURVEY	13-1
13.1 Attachments	13-1

14.	AVAILABILITY & ADEQUACY OF PUBLIC UTILITIES.....	14-1
14.1	Water.....	14-1
14.2	Sewer	14-1
14.3	Electric	14-1
14.4	Solid Waste	14-1
14.5	Construction & Demolition Debris	14-1
14.6	Special & Hazardous Waste	14-1
14.7	Attachments	14-2
15.	PORTLAND FIRE DEPARTMENT SITE REVIEW CHECKLIST	15-1

1. APPLICATION CHECKLIST

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	X
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	X
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	X	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	X	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	X	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	X	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	X	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	X	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	X	Shadows (14-14.6.4(B)), if applicable Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes	NA	X	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	X	View Corridors (14-14.6.4(D)), if applicable Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes	X	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

2. APPLICATION FEES

The application fee has been provided to the Planning Department.

- Major Site Plan 100,000 SF to 200,000 SF \$4,000

3. PROJECT SUMMARY

On behalf of TT Maine Venture, LLC (Applicant), or its assigns, Woodard & Curran (W&C) is submitting a Major Site Plan Application to renovate the properties located at 477-481 Congress Street and 22 Preble Street. A letter authorizing Woodard & Curran to act as the agent on behalf of the Applicant is attached to this Section. This application has been prepared in accordance with the City of Portland's Land Use Code, as amended through 3/15/2021, and the applicable sections of the City of Portland Design and Technical Manuals. A location map and tax map are attached. The proposed work is shown on the drawings included with this application.

3.1 PROJECT SITE & BACKGROUND

The project is located on land identified by the City Tax Assessor as Tax Map 037, Lots F002 and F022.

As noted above, this project is submitted for Site Plan Approval by the City of Portland. The project's size and scale qualify it for a **Major Site Plan** that will be reviewed and approved by the Planning Board.

The project is in the City's B-3 Zone and is included in the Congress Street Historic District. The Time & Temperature Tower and the Preble Street buildings are identified as "Contributing Structures" to the Historic District. In addition, The Longfellow House and Maine Historical Society Library that abut the property have Landmark status.

The building frontage along Congress Street is within the Pedestrian Activities District Overlay Zone (PAD) and Preble Street is a PAD Encouragement Area.

The current land use designations for 477-481 Congress Street are approximately 123,000 square feet of office and 2,600 square feet of bank. The current land use for 22 Preble Street is approximately 50,000 square feet of office and retail. The gross square footage of the buildings, including basements and sub basements, is 202,000 square feet.

3.2 PROPOSED PROJECT

The project includes interior and exterior renovations to the buildings at 477-481 Congress Street and 22 Preble Street. The planned improvements are described in more detail below.

Interior Building Renovations

The project includes the conversion of 477 Congress Street into a 196-room hotel and associated amenity spaces; new retail (approx. 4,700 SF); rooftop bar (approx. 5,100 SF) and restaurant (approx. 2,260 SF). The restored lobby and entry from Congress Street will feature the hotel check-in, interior access to a future restaurant, and a grab-and-go store. Retail spaces will be accessed from Preble Street.

The project consists of four, 32,000 SF, lower levels that will include 3 kitchens, a ball room, the hotel lobby, hotel rooms, mechanical rooms, and retail spaces. The ten-floor (8,200 SF per floor) tower above the fourth floor will be hotel rooms and a roof deck bar.

Proposed Exterior Renovations

Because the buildings are within the Congress Street Historic District, a separate application has been made to the Historical Preservation Board by Archetype Architects for the proposed exterior renovations. The project will also apply for Historic Tax Credits and therefore will also be reviewed by the Maine Historic Preservation Commission and the National Park Service.

The proposed exterior improvements are summarized below:

1. 479 Congress ST. Circa 1922, former TD Bank: new storefronts built in mahogany and painted, and a new painted wood entry door replacing the existing aluminum storefronts and door.
2. 477 Congress St: existing mahogany arcade entry doors, will be repaired and painted.
3. 475 Congress St. circa 1923, is the tower. The original bank entry abandoned for many years and replaced with the aluminum door will be replaced with a frameless glass door and glass canopy, above the door's flags. New storefront windows will be installed with bronzed aluminum frames. Paint will be removed from the existing granite base.
4. The large steel framed windows on the second and third floors of tower façade, along Congress and Preble, will be repaired, and the central ornamental panels will be reconditioned.
5. The existing storefronts on Preble will be rebuilt in wood and painted. The painted brick will be repainted. Above the storefronts on the second floor the large, fixed windows with flanking double-hungs will be repaired and painted. Aluminum double-hungs will be replaced with wood double-hungs.
6. The entry to 22 Preble St. will receive a new canopy and signage to reflect what was there historically. The windows above on the second floor will be reconditioned.
7. All masonry will be field verified for soundness and repointed or repaired as necessary, Exterior materials include painted brick, unpainted brick, limestone, and granite.
9. The main tower circa 1923 had a two-story addition placed on the building in 1963. It was clad in a painted metal panel, and sometime in the 1980's Dryvit was applied to the metal panels. This entire façade will be removed and replaced with a fiberglass cornice and pilasters with an infill of curtain wall between the pilasters. The cornice and pilasters will reflect the original cornice and the pilasters are lined up with pilasters from below.
10. On the northern end of the tower a new elevator and fire egress stair will be added to bring the building up to code. It will be clad in a brick similar in color to the adjacent brick.

Frontage and Utility Improvements

The concrete section of sidewalk in front of the 22 Preble Street property will be replaced with brick, and the remainder of the sidewalk along the Preble and Congress Street property frontages will be constructed to meet the brick sidewalk standard. Raised tree wells will be added to the Congress Street Frontage, as approved by the City Arborist.

A new valet drop-off (loading and unloading) area is proposed in front of the new hotel entrance on Congress Street. Removal and resetting of the granite curb will add approximately forty (40) feet of additional parallel parking area as shown on the attached site plan. The applicant is requesting a "No Parking/Hotel Loading Only" zone in front of the hotel as shown.

A similar curb modification is proposed on Preble Street, which will add approximately 40 feet of on-street parking. A designated "No Parking/Hotel Loading Only" zone is proposed as shown.

The existing 4" domestic water service dates to 1898 and will be replaced with a new service proposed from Preble Street. The two existing 6" fire services on Preble Street were renewed in 2020 and will be maintained.

The existing 8" sanitary sewer service for the buildings exits to the rear (north) into the parking area behind 45 Brown Street, and then out to Preble Street. This service will continued to be used, and a second 8" sanitary sewer service will be added from Preble Street.

3.3 ATTACHMENTS

- Agent Letter
- Location Map
- Tax Map
- Civil Design Plans (uploaded to Drawings folder in Eplan)
- Architectural Renderings (uploaded to Drawings folder in Eplan)



JANUARY 29, 2020

Woodard & Curran

Attn: Darrin Stairs, Project Manager

41 Hutchins Drive

Portland, ME 04102

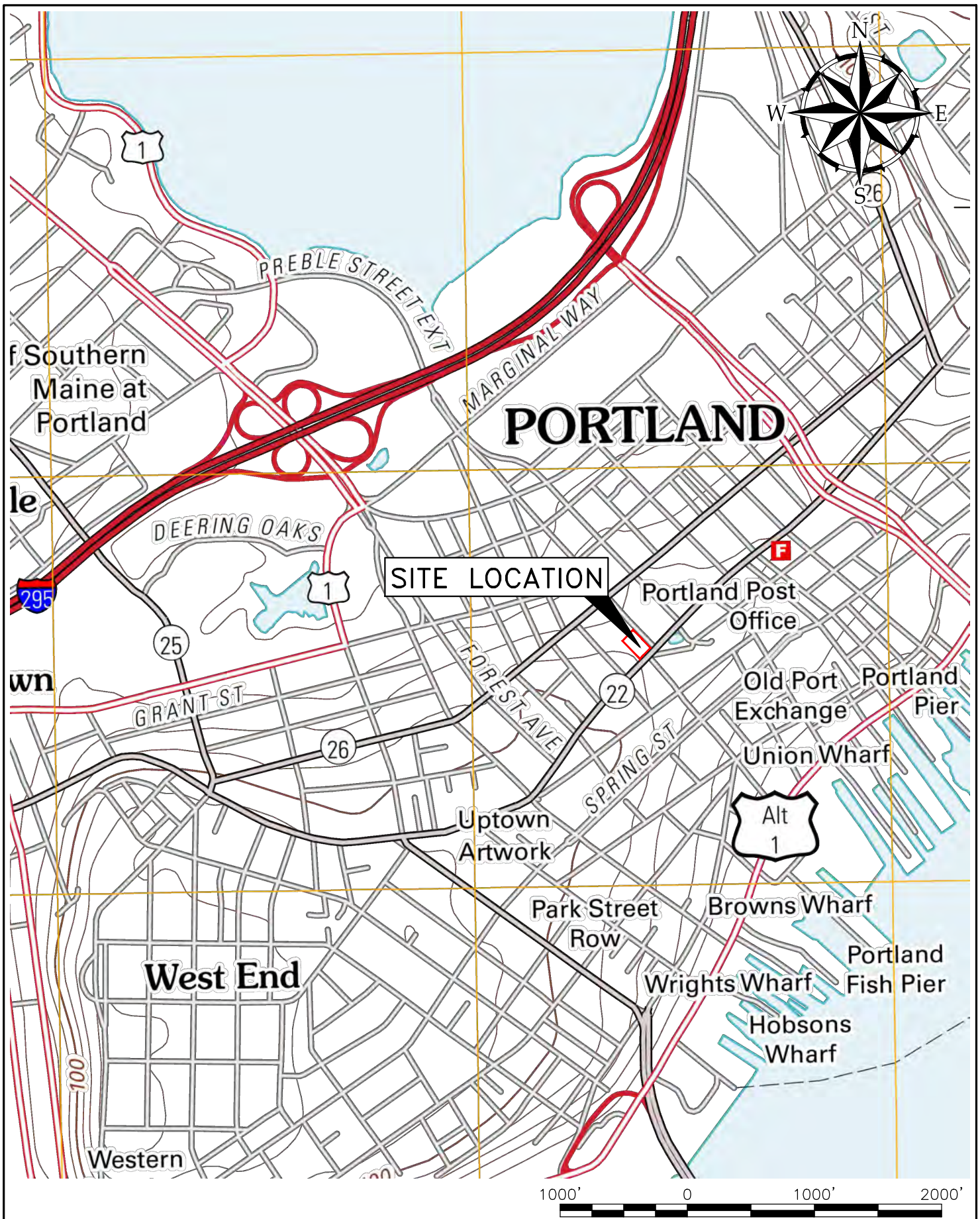
Dear Darrin,

Presidium authorizes Woodard & Curran to act as our authorized agent in our application for the level III site plan approval for the hotel project at 477 Congress Street in Portland, Maine.

Warm regards,

Cross Mocer

Co-CEO



41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

LOCATION MAP

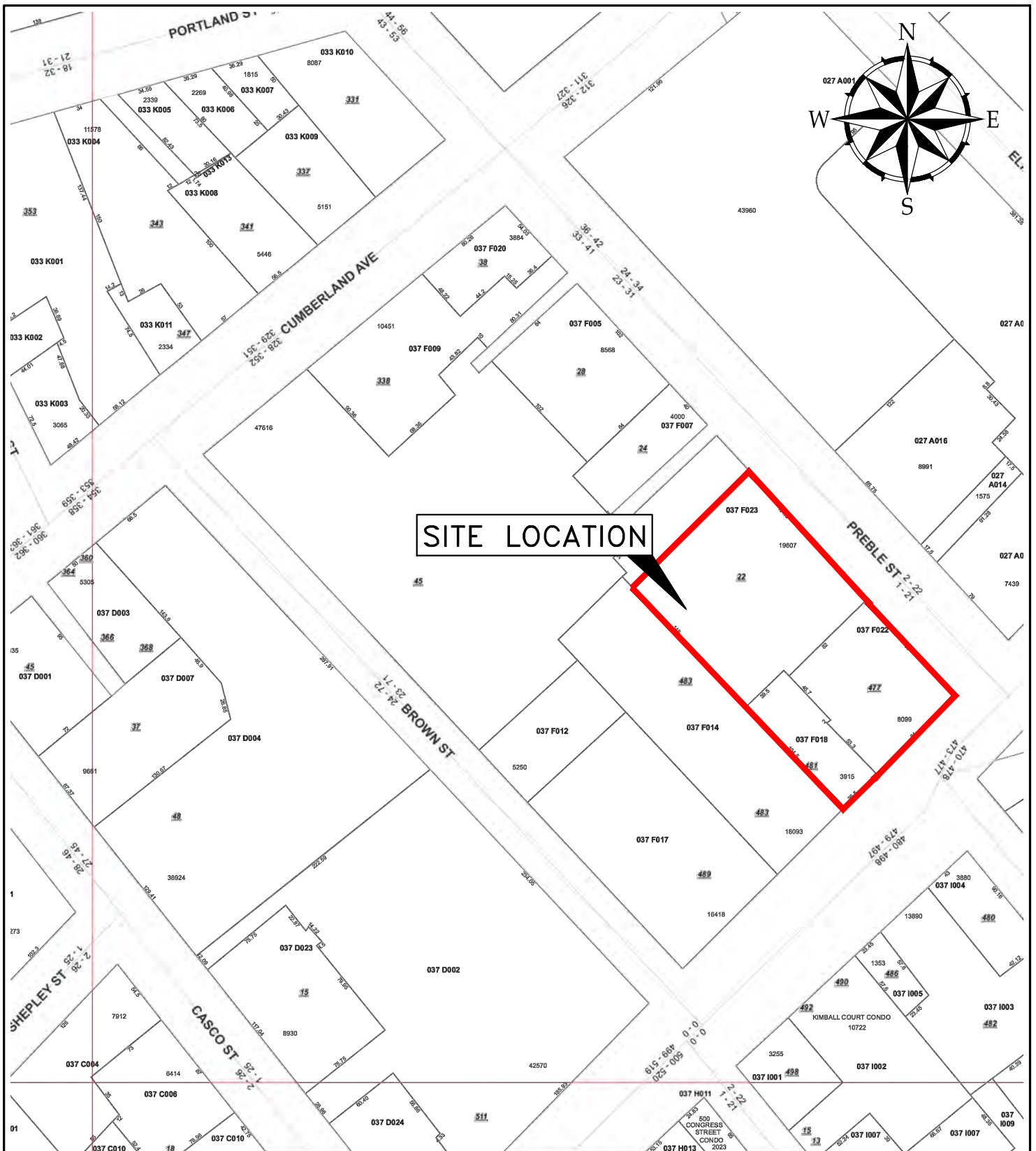
DESIGNED BY: DS CHECKED BY: DS
DRAWN BY: DS 0232868.00 LOCATION MAP*.dwg

TT MAINE VENTURE, LLC
3100 MCKINNON ST STE 250
DALLAS, TX 75201

477 CONGRESS
HOTEL
PORTLAND, MAINE

JOB NO: 0232868.00
DATE: February 2020
SCALE: 1" = 1000'

Location Map



April 1 2012 fy 2013

Tax Map Index; <http://www.portlandassessors.com/taxmaps.htm>



41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

TAX MAP

DESIGNED BY: DS CHECKED BY: DS
DRAWN BY: DS 0232868.00 TAX MAP.dwg

TT MAINE VENTURE, LLC
3100 MCKINNON ST STE 250
DALLAS, TX 75201

477 CONGRESS
HOTEL
PORTLAND, MAINE

JOB NO: 0232868.00
DATE: February 2020
SCALE: 1" = 100'

Tax Map

4. WAIVER REQUESTS

No waivers are requested at this time.

5. EVIDENCE OF RIGHT, TITLE & INTEREST

The proposed development is located on properties owned by Limited Liability Company (LLCs) owned by the Applicant and identified as Tax Map 037, Lots F002 and F022. Attached are copies of the deeds associated with these properties.

The Owner Information is as follows:

Property Location	477 CONGRESS ST
CBL	037 F022001
Land Use Type	MULTI-USE COMMERICAL
Owner Information	TT MAINE VENTURE LLC 3100 MCKINNON ST STE 250 DALLAS TX 75201
Book and Page	35346/060
Legal Description	37-F-22 CONGRESS ST 473-481

Property Location	45 BROWN ST
CBL	037 F002001
Land Use Type	MULTI-USE COMMERICAL
Owner Information	BROWN TOWER LLC 3100 MCKINNON ST STE 250 DALLAS TX 75201
Book and Page	35610/345
Legal Description	37-F-2 BROWN ST 45-67 PREBLE 8-20 CUMBERLAND AVE 346-352

5.1 ATTACHMENTS

- Deeds

QUITCLAIM DEED WITH COVENANT

TT MAINE VENTURE, LLC, a Delaware Limited Liability Company with a mailing address of 3100 McKinnon Street, Suite 250, Dallas, TX, 75201, grants to **BROWN TOWER, LLC**, a Maine Limited Liability Company with a mailing address of 3100 McKinnon Street, Suite 250, Dallas, TX, 75201, with **Quitclaim Covenants**, the premises, together with any buildings thereon, situated in the City of Portland, County of Cumberland, and State of Maine, being more particularly described in Exhibit A attached hereto and incorporated herein.

Being a portion of the property conveyed to TT Maine Venture, LLC by deed of 477-481 Congress Street Holdings, LLC, dated December 5, 2018, and recorded in the Cumberland County Registry of Deeds in Book 35346, Page 60.

[Signature appears on the following page.]

In Witness Whereof, **TT Maine Venture, LLC** has caused this instrument to be executed by **Cross Mocer**, in his capacity as Manager of TT Presidium, LLC, which is Manager of TT Maine Venture, LLC, hereunto duly authorized, as of the 29th day of April, 2019.

Witness:

[Signature]

TT Maine Venture, LLC
By: TT Presidium, LLC
Its: Manager

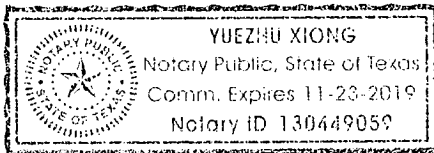
By: [Signature]
Cross Mocer
Its: Manager

STATE OF Texas
COUNTY OF Travis

April 29th, 2019

Then personally appeared the above-named Cross Mocer, Manager of TT Presidium, LLC, which is Manager of TT Maine Venture, LLC, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said TT Maine Venture, LLC.

Before me,



[Signature]
Notary Public
Print Name: Yuezhu Xiong
My Commission Expires: 11/23/2019

Exhibit A
Deed to Brown Tower, LLC

Parcel One:

A certain lot or parcel of land with the buildings thereon, situated on the northeasterly side of Brown Street, the southeasterly side of Cumberland Avenue and the southwesterly side of Preble Street, in the City of Portland, County of Cumberland and State of Maine, and being more particularly bounded and described as follows:

Beginning at the intersection of the northeasterly sideline of Brown Street with the southeasterly sideline of Cumberland Avenue;

Thence, North 65° 38' 40" East along the southeasterly sideline of said Cumberland Avenue one hundred and ninety-six hundredths (100.96) feet to the westerly line of land now or formerly of Sweetwater Partners LLC as described in deed Book 34349, Page 251;

Thence, South 28° 10' 20" East along the westerly line of land of said Sweetwater Partners LLC ninety-one and ten hundredths (91.10) feet;

Thence, North 62° 29' 30" East along the southerly line of land of Sweetwater Partners LLC sixty-four and ninety-four hundredths (64.94) feet;

Thence, North 60° 08' 00" East continuing along the southerly line of land of Sweetwater Partners LLC thirty-nine and five hundredths (39.05) feet to the westerly line of land now or formerly of Earl Apartments LLC as described in deed Book 17591, Page 197;

Thence, South 28° 06' 30" East along the westerly line of land of said Earl Apartments LLC one hundred three and one hundredths (103.01) feet to the northerly line of land now or formerly of 24 Preble Street Properties LLC as described in deed Book 33029, Page 19;

Thence, South 62° 35' 40" West along the northerly line of land of said 24 Preble Street Properties LLC sixteen and sixteen hundredths (16.16) feet;

Thence, South 27° 31' 10" East along the westerly line of land of 24 Preble Street Properties LLC thirty-nine and ninety-six hundredths (39.96) feet;

Thence, North 62° 24' 40" East along the southerly line of land of 24 Preble Street Properties LLC one hundred and twenty-nine hundredths (100.29) feet to the southwesterly sideline of Preble Street;

Thence, South 27° 34' 40" East along the southwesterly sideline of said Preble Street one hundred seventy-nine (179.00) feet;

Thence, South 62° 24' 41" West eighty-six (86.00) feet;

Thence, North 27° 34' 39" West ninety-seven (97.00) feet;

Thence, South 62° 24' 41" West thirty-five and ninety-three hundredths (35.93) feet to the easterly line of land now or formerly of Maine Historical Society as described in deed Book 697, Page 343;

Thence, North 27° 52' 30" West along the easterly line of land of said Maine Historical Society forty-three and fifty-four hundredths (43.54) feet;

Thence, South 59° 33' 00" West along the northerly line of land of Maine Historical Society sixty-five and ninety-four hundredths (65.94) feet;

Thence, South 28° 48' 10" East along the westerly line of land of Maine Historical Society twenty-two and seventy-two hundredths (22.72) feet to the northerly line of land now or formerly of MHS, Inc. as described in deed Book 10467, Page 207;

Thence, South 65° 26' 10" West along the northerly line of land of said MHS, Inc. ninety-nine and forty-nine hundredths (99.49) feet to the northeasterly sideline of Brown Street;

Thence, North 28° 19' 30" West along the northeasterly sideline of said Brown Street two hundred ninety-seven and forty-eight hundredths (297.48) feet to the point of beginning.

Containing 64,840 square feet or 1.488 acres, more or less.

Reference is made to a plan titled "Boundary & Topographic Survey Time and Temperature Building Monument Square Parking Garage 477-481 Congress Street, 22 Preble Street, 45 Brown Street, Portland, Maine made for TT Venture, LLC" by Owen Haskell, Inc. dated Jan. 28, 2019 revised through 4/1/19.

Parcel Two:

Also another certain lot or parcel of land situated in said City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a 5/8" reinforcing rod located on the southwesterly sideline of Preble Street, said rod being North 27° 34' 40" West, a distance of ten feet (10'), as measured by said southwesterly sideline of Preble Street, from the northerly or northeasterly corner of the building known as "The Wadsworth" as described in a deed from M. Mayo Citrin, et al. to The Arthar Company by deed recorded in the Cumberland County Registry of Deeds in Book 2182, Page 479, and said reinforcing rod being also located South 27° 34' 40" East, a distance of sixty-nine feet (69'), more or less, as measured by said southwesterly sideline of Preble Street, from the intersection of said Preble Street with the southerly side of Cumberland Avenue; thence South 21° 34' 40" East, along the southwesterly sideline of Preble Street ten feet (10') to a point; thence South 62° 32' 20" West eighty and thirty-three hundredths feet (80.33') to a point; thence North 27° 18' 50"

West ten feet (10') to a point; thence North 62° 32' 20" East eighty and twenty-eight hundredths feet (80.28') to a point in the southwesterly sideline of Preble street and the point of beginning.

Parcels One and Two are conveyed subject to and together with the following rights and easements:

Together with and subject to party wall rights in the division wall between Keith's Theater, so-called, and the Allen Storage Warehouse, so-called, as set forth in a certain deed of Portland Savings Bank to Preble Company dated January 31, 1933 and recorded in the Cumberland County Registry of Deeds, in Book 1125, Page 270.

Together with and subject to such party wall rights in the partition wall between the "Firestone" building and Keith's Theater building as more fully set forth in a deed from Portland Savings Bank to Harry Potter dated December 29, 1921, and recorded in the said Registry of Deeds in Book 1091, Page 295.

Subject to any rights of passage and right to maintain electric, gas, water and sewer lines in a certain passageway now existing along the northerly side of "The Wadsworth" extending from Preble Street to the court in rear of "The Wadsworth" and to the stage entrance of Keith's Theater, as set forth in deeds recorded in said Registry of Deeds in Book 1091, Page 438; Book 1125, Page 269; and Book 1125, Page 270.

Together with and subject to all the rights and easements, the burden of which was placed upon, and the benefit of which was given to the premises herein described in two certain deeds of the Portland Savings Bank, one to Harry Potter dated December 29, 1921 and recorded in said Registry of Deeds, Book 1091, Page 295, and other to Jacob Citrin dated January 17, 1922 and recorded in said Registry of Deeds in Book 1091, Page 438.

Together with rights and easements reserved by October Corporation as set forth in a deed to Ladd L. Heldenbrand, et al. dated January 14, 1999 and recorded in said Registry of Deeds in Book 14612, Page 231.

Together with rights and easements to maintain, repair and replace existing parking garage, which overhangs or encroaches land of Ladd L. Heldenbrand et al. as conveyed in a Release Deed to October Corporation dated February 9, 1999 and recorded in said Registry of Deeds in Book 14612, Page 235.

The above-described Premises are benefitted by and subject to certain easements and agreements described in a certain Reciprocal Easement Agreement by and between TT Maine Venture, LLC and Brown Tower, LLC of even date herewith to be recorded in the Cumberland County Registry of Deeds.

MAINE REAL ESTATE TAX-Paid

DLN: 1001840046130

**QUITCLAIM DEED WITHOUT COVENANT
(Release Deed)**

KNOW ALL PERSONS BY THESE PRESENTS, THAT **477-481 CONGRESS STREET HOLDINGS, LLC**, a Maryland limited liability company ("Grantor"), with a mailing address of c/o CWCapital Asset Management LLC, 7501 Wisconsin Avenue, Suite 500 West, Bethesda, Maryland 20814, for consideration paid, RELEASES to **TT MAINE VENTURE, LLC**, a Delaware limited liability company ("Grantee"), with a mailing address of 3100 McKinnon Street, Suite 250, Dallas, TX 75201, certain real property located in the City of Portland, County of Cumberland, State of Maine, which is more particularly described in Exhibit A attached hereto and made a part hereof.

This conveyance is made SUBJECT, HOWEVER, to real estate taxes which are not yet due and payable, which by acceptance hereof, Grantee assumes and agrees to pay.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

When Recorded Return To: ARMUR
 First American Title Insurance Company
 National Commercial Services
 1850 K Street NW Suite 1050
 Washington, DC 20006
 File No: NCS 716737A

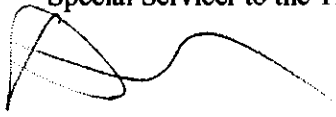
In witness whereof, Grantor has caused this instrument to be executed by the undersigned, its duly authorized representative, this 14th December, 2018.

GRANTOR

477-481 CONGRESS STREET HOLDINGS, LLC,
a Maryland limited liability company

By: U.S. Bank National Association, as Trustee, successor-in-interest to Bank of America, N.A., as Trustee, Successor to Wells Fargo Bank, N.A., as Trustee, for the Registered Holders of Wachovia Bank Commercial Mortgage Trust, Commercial Mortgage Pass-Through Certificates, Series 2007-C30 (the "Trust"), its Sole Member/Manager

By: CWC Capital Asset Management LLC, a Delaware limited liability company, solely in its capacity as Special Servicer to the Trust

By: 
Name: Alex Killick
Title: Senior Vice President

STATE OF MARYLAND

§

COUNTY OF MONTGOMERY

§

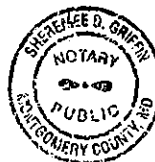
§

BEFORE ME, personally appeared, Alex Killick, the Senior Vice President of CWC Capital Asset Management LLC, a Delaware limited liability company, to me to be the person whose name is subscribed on the foregoing instrument and acknowledge to me that same was executed for the purposes and consideration therein expressed and in the capacity therein stated as the act and deed of said entity.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 5 day of December, 2018.

Notary Public, State of Maryland

My Commission Expires: _____



Sheremee D. Griffin
Sheremee D. Griffin
NOTARY PUBLIC
Montgomery County
State of Maryland
My Commission Expires
November 30, 2022



Exhibit "A"**Legal Description**

Real property in the City of Portland, County of Cumberland, State of Maine, described as follows: Parcel One:

A certain lot or parcel of land with the buildings thereon, situated at the intersection of the northwesterly side of Congress Street and the southwesterly side of Preble Street, in the City of Portland, County of Cumberland and State of Maine, and being more particularly bounded and described as follows:

Beginning at a point, which point marks the intersection of the northwesterly side of Congress Street with the southwesterly side of Preble Street; thence South 59° 24' 30" West along the northwesterly sideline of Congress Street one hundred twenty-one and seven hundredths (121.07) feet to a point; thence North 27° 52' 30" West two hundred forty and sixty-nine hundredths (240.69) feet to a point; thence South 59° 33' West sixty-five and ninety-four hundredths (65.94) feet to a point; thence South 28° 48' 10" East twenty-two and seventy-two hundredths (22.72) feet to a point; thence South 65° 26' 10" West ninety-nine and forty-nine hundredths (99.49) feet to a point in the northeasterly sideline of Brown Street; thence North 28° 19' 30" West along the northeasterly sideline of said Brown Street two hundred ninety-seven and forty-eight hundredths (297.48) feet to a point, which point marks the intersection of the northeasterly sideline of Brown Street with the southeasterly sideline of Cumberland Avenue, thence North 65° 38' 40" East along the southeasterly sideline of said Cumberland Avenue one hundred and ninety-six hundredths (100.96) feet to a point; thence South 28° 10' 20" East ninety-one and ten hundredths (91.10) feet to a point; thence North 62° 29' 30" East sixty-four and ninety-four hundredths (64.94) feet to a point; thence North 60° 08' 00" East thirty-nine and five hundredths (39.05) feet to a point; thence South 28° 06' 30" East one hundred three and one hundredths (103.01) feet to a point; thence South 62° 35' 40" West sixteen and sixteen hundredths (16.16) feet to a point; thence South 27° 31' 10" East thirty-nine and ninety-six hundredths (39.96) feet to a point; thence North 62° 24' 40" East one hundred and twenty-nine hundredths (100.29) feet to a point in the southwesterly sideline of Preble Street; thence South 27° 34' 40" East along the southwesterly sideline of said Preble Street two hundred seventy-two and eighty hundredths (272.80) feet to the point of beginning.

Parcel Two:

Also another certain lot or parcel of land situated in said City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a 5/8" reinforcing rod located on the southwesterly sideline of Preble Street, said rod being North 27° 34' 40" West, a distance of 10', as measured by said southwesterly sideline of Preble Street, from the northerly or northeasterly corner of the building known as "The Wadsworth" as described in a deed from M. Mayo Citrin, et al. to The Arthar Company by deed recorded in the Cumberland County Registry of Deeds in Book 2182, Page 479, and said reinforcing rod being also located South 27° 34' 40" East, a distance of 69', more or less, as measured by said southwesterly sideline of Preble Street, from the intersection of said Preble Street with the southerly side of Cumberland Avenue; thence South 21° 34' 40" East along the southwesterly sideline of Preble Street ten (10) feet to a point; thence South 62° 32' 20" West eighty and thirty-three hundredths (80.33) feet to a point; thence North 27° 18' 50" West ten (10)

feet to a point; thence North 62° 32' 20" East eighty and twenty-eight hundredths (80.28) feet to a point in the southwesterly sideline of Preble Street and the point of beginning.

Parcel 3:

Together with and subject to party wall rights in the division wall between Keith's Theater, so-called, and the Allen Storage Warehouse, so-called, as set forth in a certain deed of Portland Savings Bank to Preble Company dated January 31, 1933 and recorded in the Cumberland County Registry of Deeds, in Book 1125, Page 270.

Together with and subject to such party wall rights in the partition wall between the "Firestone" building and Keith's Theater building as more fully set forth in a deed from Portland Savings Bank to Harry Potter dated December 29, 1921, and recorded in the said Registry of Deeds in Book 1091, Page 295.

Subject to any rights of passage and right to maintain electric, gas, water and sewer lines in a certain passageway now existing along the northerly side of "The Wadsworth" extending from Preble Street to the court in rear of "The Wadsworth" and to the stage entrance of Keith's Theater, as set forth in deeds recorded in said Registry of Deeds in Book 1091, Page 438; Book 1125, Page 269; and Book 1125, Page 270.

Together with and subject to all the rights and easements, the burden of which was placed upon, and the benefit of which was given to the premises herein described in two certain deeds of the Portland Savings Bank, one to Harry Potter dated December 29, 1921 and recorded in said Registry of Deeds, Book 1091, Page 295, and the other to Jacob Citrin dated January 17, 1922 and recorded in said Registry of Deeds in Book 1091, Page 438.

Together with rights and easements reserved by October Corporation as set forth in a deed to Ladd L. Heldenbrand, et al. dated January 14, 1999 and recorded in said Registry of Deeds in Book 14612, Page 231.

Together with rights and easements to maintain, repair and replace existing parking garage, which overhangs or encroaches land of Ladd L. Heldenbrand et al. as conveyed in a Release Deed to October Corporation dated February 9, 1999 and recorded in said Registry of Deeds in Book 14612, Page 235.

6. EASEMENTS AND OTHER BURDENS

There is one of easement agreement on the project Site between 477 Time & Temperature LLC and the Maine Historical Society at 489 Congress Street. This cross easement allows for maintenance repair and renovation of the respective buildings. A copy of the easement is attached.

6.1 ATTACHMENTS

- Easement Agreement

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT is made this 12 day of Oct., 2007, by and between **477 TIME & TEMPERATURE LLC**, a Delaware limited liability company (hereinafter "477"), and the **MAINE HISTORICAL SOCIETY**, a Maine non-profit corporation with a mailing address 489 Congress Street, Portland, Maine 04101 (hereinafter "MHS").

Whereas, 477 is the owner of certain real property located northwesterly of Congress Street in the City of Portland, County of Cumberland, and State of Maine, conveyed to 477 by that certain deed recorded at the Cumberland County Registry of Deeds in Book 24634, Page 44 (the "477 Property");

Whereas, MHS is the owner of certain real property adjacent to the 477 Property, conveyed to MHS by that certain deed recorded at the Cumberland County Registry of Deeds in Book 697, Page 343 (the "MHS Property"); and

Whereas, MHS desires certain easement rights to use portions of the 477 Property in connection with MHS's addition to and renovation of the building on the MHS Property, and each party desires certain easement rights to use portions of the other's property for purposes of maintaining their respective buildings; and

Whereas, each of 477 and MHS own a portion of the Easement Area (as that term is defined below) and any grant or easement rights in the Easement Area by either of 477 or MHS to the other is intended to burden the portion of the Easement Area which the grantor owns.

Now, therefore, the parties hereby covenant, grant and agree as follows:

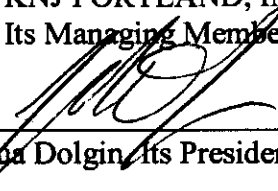
1. Cross Easements. MHS grants to 477, its successors and assigns, for the benefit of the 477 Property, an appurtenant, non-exclusive easement to enter upon the area shown in hatching on the attached Exhibit A (the "Easement Area"), with workers and equipment as reasonably necessary for the construction, maintenance and repair of the building(s) now or hereafter located on the 477 Property; together with the right of access to the Easement Area, at reasonable times and from such other portions of the MHS Property as are agreed upon in advance by MHS, its successors and assigns, provided that such access shall not interfere with MHS's use and quiet enjoyment of the MHS Property. 477 grants to MHS, its successors and assigns, for the benefit of the MHS Property, an appurtenant, non-exclusive easement to enter upon the Easement Area with men and equipment as reasonably necessary for the construction, maintenance and repair of the building(s) located on the MHS Property.

2. Easement to MHS. 477 grants to MHS, its successors and assigns, for the benefit of the MHS Property, an appurtenant easement for the purposes of constructing, maintaining, repairing, replacing, and removing one (1) above-ground boiler flue areaway within the Easement Area as shown on the attached Exhibit A, and underground mini piles and up to ten (10) underground concrete pile caps within and under the Easement Area generally as shown on the attached Exhibit A, in connection with MHS's addition to and renovation of the building on the MHS Property; provided, however, that such construction, maintenance, repair, replacement or removal shall be conducted at MHS's sole cost and expense and in such a manner that does not damage, undermine, or interfere with the buildings and foundations now or hereafter located on the 477 Property.
3. Reserved Rights. Each of MHS and 477 reserves, for itself, its successors and assigns, the use and enjoyment of that portion of the Easement Area that each owns for all purposes consistent with the use of the foregoing easements.
4. Indemnities. MHS agrees to (a) indemnify and (b) hold harmless 477 for and against any and all lost, cost, damage or expense, including reasonable attorneys' fees arising from MHS's or its agents' or its contractors' or employees' use or activities in, on, over or under the Easement Area. 477 agrees to (a) indemnify and (b) hold harmless MHS for and against any and all lost, cost, damage or expense, including reasonable attorneys' fees arising from 477's or its agents', contractors or employees' activities in, on, over or under the Easement Area.

WITNESS our hands and seals as of the date written above.

477 TIME & TEMPERATURE LLC

By: KNJ PORTLAND, INC.,
Its Managing Member

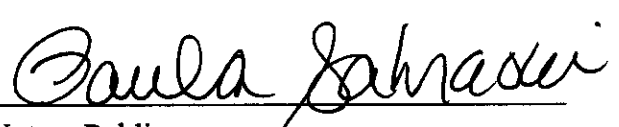
By: 
Joshua Dolgin, Its President

STATE OF NEW YORK
COUNTY OF NEW YORK

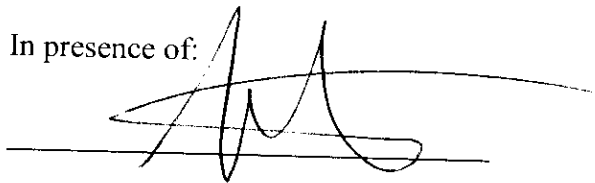
October 12, 2007

Then personally appeared the above-named Joshua Dolgin, President of KNJ Portland, Inc., Managing Member of 477 Time & Temperature LLC, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said company.

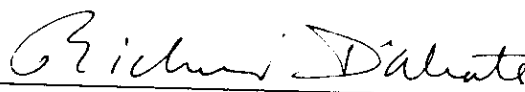
Before me,


Notary Public
Print Name: PAULA SAHRAOUI

In presence of:



MAINE HISTORICAL SOCIETY

By: 

Richard D'Abate

Executive Director

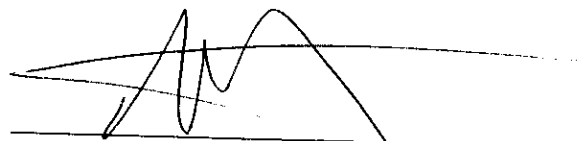
STATE OF MAINE

COUNTY OF CUMBERLAND

October 15, 2007

Then personally appeared the above-named Richard D'Abate, Executive Director of the Maine Historical Society, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said nonprofit corporation.

Before me,



Notary Public ~~ATTORNEY AT LAW~~

Print Name: Nathan H. Smith

n/f 477 Time & Temperature LLC

Maine Historical Society
Research Library Addition and Renovation

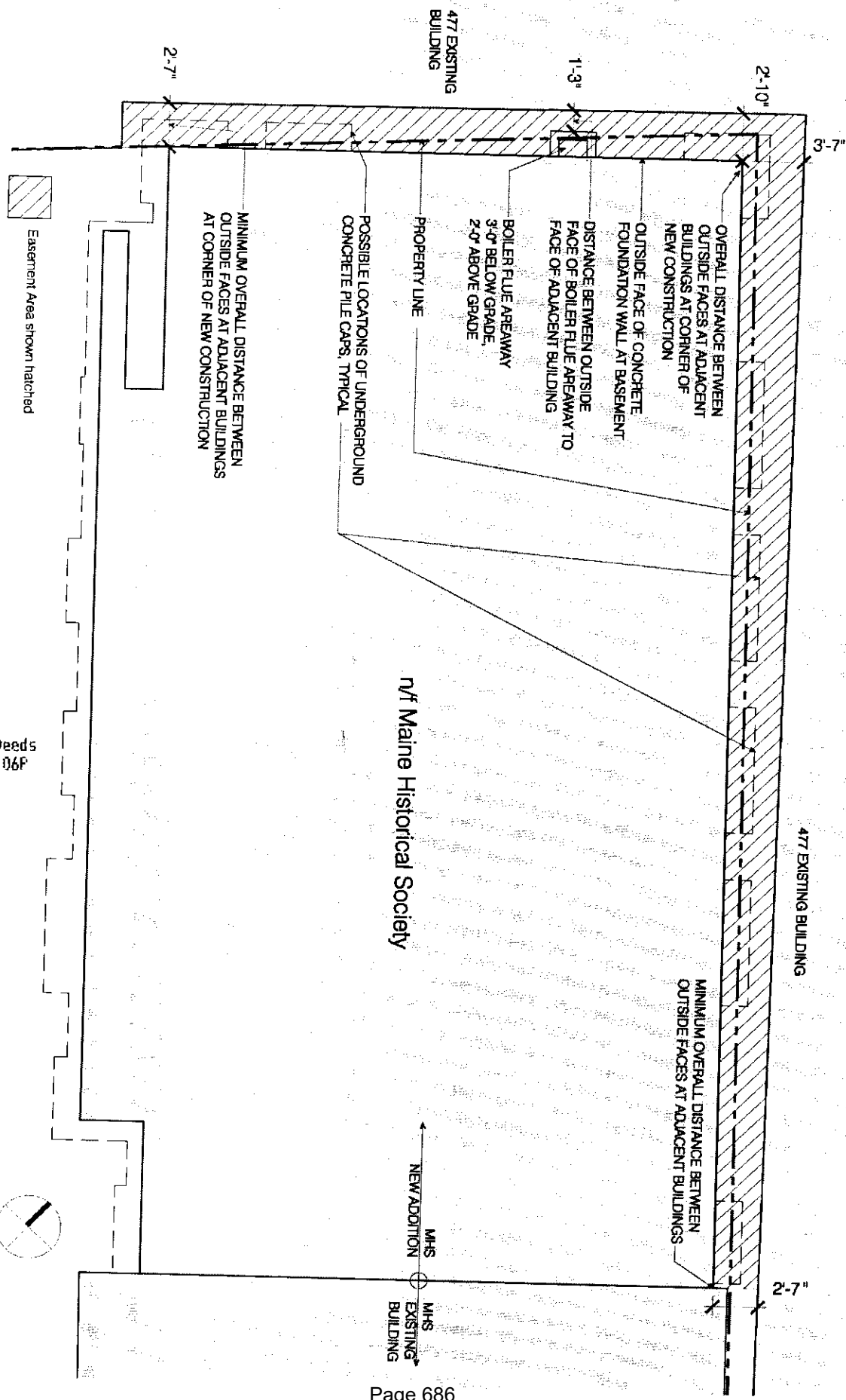


Exhibit A

n/f Maine Historical Society

Received
Recorded Register of Deeds
Oct 15, 2007 01:35:06P
Cumberland County
Pamela E. Lovley

Diagrammatic Cross-Easement Plan
Revised 09/05/07



7. EVIDENCE OF STATE AND/OR FEDERAL APPROVALS

The project will be reviewed by the State Historical Preservation Commission and the National Park Service. Copies of these approvals can be supplied upon receipt and if requested.



8. EVIDENCE OF FINANCIAL & TECHNICAL CAPABILITY

8.1 FINANCIAL CAPABILITY

Attached is a copy of a letter verifying the Applicant's financial capacity to undertake the project.

8.2 TECHNICAL CAPABILITY

On behalf of the Applicant, Woodard & Curran is preparing this application for the proposed development. Woodard & Curran has extensive experience with design for site development projects and specifically on the peninsula within the City of Portland. Woodard & Curran, a 1,000-person Portland-based firm, has provided engineering services to the public and private sector for over 40 years, including permitting, civil/site engineering, stormwater, and construction management services.

Archetype Architects is a Portland based firm that has been designing buildings in Maine and New England for over 50 years. Projects include multi-family housing, commercial developments, and historic reuse. Recent on-peninsula projects include 20 Thames Street Residential, the WEX Headquarters, and the Shipyard/Vets First Choice Development.

VHB is a 1,600-person multi-disciplinary firm that is providing traffic engineering services for the project. VHB professionals include scientists, planners, engineers, and designers, and their work includes transportation, real estate, institutional, and energy industries.

Copies of resumes can be provided upon request.

8.3 ATTACHMENTS

- Financial Capacity Letter



MARCH 31, 2021

To whom it may concern,

Presidium as an organization has the means to complete the renovation of the Time & Temperature Building and conversion to a hotel. Presidium currently owns a portfolio with total asset value of \$2 billion and has had a highly successful track record over its 18-year history, selling over \$1 billion in assets over that time. Its two principals have a combined net worth of over \$100 million and liquidity of over \$15 million.

Please reach out if you need any more information about us or our firm.

Warm regards,

John Griggs, Co-CEO, Co-Founder

9. CONSISTENCY WITH PORTLAND DESIGN STANDARDS

Section 14-526 of the City of Portland's Land Use Code outlines the site plan standards that must be met by Level III Site Plan projects. The proposed development will follow the City's design standards as described in the following section.

9.1 TRANSPORTATION

A Traffic Movement Permit (TMP) is not required for this project, because the project will not generate 100 or more passenger trips at peak hour. A Traffic Memo has been prepared by VHB for the proposed development and is included as an attachment to this Section.

1. *Impact on Surrounding Street Systems*
The attached Traffic Assessment was prepared by VHB for the proposed development. A trip generation summary is provided in the traffic assessment, as well as a comparison to trip generation calculated for the existing uses.
2. *Access and Circulation*
The primary vehicular and pedestrian entrances to the site will largely remain as they are currently. VHB will work with the City Traffic Engineer to evaluate the impacts, if any, of the addition of the valet space proposed on Congress Street in front of the Hotel entrance.
3. *Loading & Servicing*
Loading and trash removal will continue to be serviced from the Preble Street side of the building.
4. *Sidewalks*
Brick sidewalks and granite curb will be provided per the City of Portland Sidewalks and Driveway Apron Materials Policy on Congress and Preble Streets where the project will impact the sidewalks. The existing concrete sections of sidewalk located along Preble Street will be removed and replaced with brick.
5. *Public Transit Access*
No changes to public transit access are proposed as part of this project.
6. *Parking*
Ninety (90) parking spaces will be provided in the parking garage at 45-Brown Street.
7. *Snow Storage*
The Site's snow removal will continue to be managed by a contracted third party to ensure safe pedestrian circulation and to maintain access to the building entrances.
8. *Transportation Demand Management (TDM)*
A TDM plan is not required for this project.

9.2 ENVIRONMENTAL & LANDSCAPE FEATURES

1. *Preservation of Significant Natural Features*
The Site is completely developed and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats, or wetland areas.

2. *Landscaping & Landscape Preservation*

The Site is completely developed and there is no existing landscaping or existing trees that will be removed.

3. *Site Landscaping & Street Trees*

Three (3) street trees in raised planters are proposed on Congress Street, subject to approval by the City Arborist.

9.3 ENVIRONMENTAL & STORMWATER

1. *Water Quality, Stormwater Management, & Erosion Control*

This project site is completely developed, and the proposed project is a change in use of existing buildings. Stormwater will continue to be managed as it is currently. This project will not create any changes to the quantity, or quality, of the stormwater runoff from the site.

The project is not located within the watershed of an Urban Impaired Stream and is not anticipated to pose a risk of groundwater contamination during or after construction. The development has also been designed to provide for the adequate and sanitary disposal of sewage, as further described in Section 13 of this Report.

9.4 PUBLIC INFRASTRUCTURE & SAFETY

1. *Consistency with City Master Plans*

The project has been designed consistent with City Council approved Master Plans, including sewer and stormwater, streets, and other public facilities.

2. *Public Safety and Fire Prevention*

Provisions for public safety have been incorporated into the design of accesses and egresses. The design includes natural surveillance of public spaces and appropriate access control.

Emergency vehicle access is provided on the adjacent public roadways. Compliance with the Portland Fire Department Site Review Checklist is described in Section 14 of this Report.

3. *Availability and Adequate Capacity of Public Utilities*

The availability and adequate capacity of public utilities is described in Section 13 of this Report.

9.5 SITE DESIGN

1. *Massing, Ventilation, and Wind Impact*

This project is a change in use to existing buildings. There are no changes to massing, ventilation, or wind impacts.

2. *Shadows*

This project is a change in use to existing buildings and as such will not change its impacts from shadows. It is also located in the B3 zone, which is exempt from avoiding or mitigating shadow impacts.

3. *Snow and Ice Loading*

This project is a change in use to existing buildings. Any changes to building facades or elevations will be designed to prevent snow and ice from accumulating and falling onto abutting properties and public ways.

4. *View Corridors*

This project is a change in use to existing buildings. No view corridors are impacted.

5. *Historic Resources*

This project is in the Congress Street Historic District, and the buildings are all considered “contributing structures.” The proposed renovations take into consideration the preservation standards for the district, under the guidelines of The National Park Service and in accordance with the provisions of article IX (historic preservation) of the Land Use Code.

An application for a Certificate of Appropriateness for the proposed exterior renovations will proceed concurrently through the review process with the Historic Preservation Board. We will work with Staff and the Board to schedule this review.

6. *Exterior Lighting*

No changes to exterior lighting are proposed with the project.

7. *Noise and Vibration*

The noise impact from the proposed project will be minor. The primary source of noise from the proposed project will be the result of construction. Construction activities will be limited to the hours permitted by the City. HVAC and primary mechanical equipment will be located and screened to mitigate noise impacts. Noise associated with the proposed project will not exceed regulated levels and is not anticipated to negatively impact surrounding development in its urban setting. Noise and vibration associated with the proposed project will not exceed regulated levels.

8. *Signage and Wayfinding*

Sign permit applications will be submitted under separate cover. The size, scale, proportions, design, materials, placement, quantity and source and intensity of illumination shall be designed to complement and enhance the architectural attributes of the building and comply with the requirements of the Historic District.

9. *Zoning Related Design Standards*

An assessment of the City Zoning requirements is provided in Section 10 of this Report.

9.6 ATTACHMENTS

- Traffic Memorandum Prepared by VHB



To: City of Portland DPW and
MaineDOT

Date: January 28, 2020

Memorandum

Project #: 55321

From: Jennifer Conley, PE, PTOE

Re: 45 Brown Street and 477 Congress Street
Trip Generation

A redevelopment project is currently being contemplated for the properties located at 45 Brown Street and 477 Congress Street.

The 477 Congress Street site, an approximately 123,000 square feet (sf) office building, is now 85% vacant. However, as recently as 2013, it was fully occupied. In addition to the office space at that address, the adjacent annex (on Preble Street) accommodates approximately 50,000 sf of retail space and 481 Congress Street is occupied by a 2,600 square foot bank. The 477 Congress Street site was connected via an interior corridor to the existing parking garage at 45 Brown Street.

As currently proposed, the 477 Congress Street site will be redeveloped into a 180-room hotel with approximately 20,000 sf of retail annex remaining. The existing bank space is anticipated to be converted into a high-end restaurant off the lobby of the hotel. In addition, there is anticipated to be restaurant space on both the second and the top floors of the hotel with seasonal outdoor space. The 45 Brown Street site will be redeveloped into a 300-unit residential building and a parking garage that will serve both 45 Brown Street and 477 Congress Street.

Unadjusted Trip Generation

VHB has evaluated the trip generation of the redevelopment of the 45 Brown Street and 477 Congress Street sites. VHB calculated the peak hour trip generation of the site when it was fully occupied using the Institute of Transportation Engineers' (ITE) trip generation rates. ITE rates typically do not include adjustment to represent the urban, downtown nature of this specific site. For example, it is quite likely that a high percentage of retail trips in this neighborhood are made via foot by people who are already working, shopping or visiting the area. In the future, it is likely that a high percentage of residential or hotel trips will be made on foot to area employers, retail and tourist destinations.

Current/Recent Site Trip Generation

The trip generation of the office, retail, and bank spaces were calculated using Land Use Code (LUC) 710 – General Office Building, LUC 820 – Shopping Center, and LUC 911 – Walk-In Bank, respectively. The Walk-In Bank LUC only had data for the PM peak hour. For the purposes of this analysis, the trip generation of the parking garage was not calculated separately for either the existing or redevelopment scenarios and instead the trips were assigned to the land uses that actually generate them. The resulting trip generation associated with the current or recent land uses is provided in Table 1. For the purposes of this initial evaluation, no adjustment was made for trips made via other modes.

40 IDX Drive, Building 100

Suite 200

South Burlington, Vermont 05403

Table 1. Trip Generation – Current or Recent Land Uses

		Office Building ¹	Retail Annex ²	Bank ³	Parking Garage ⁴	Total Trips
Weekday AM Peak Hour	Enter	94	29	-	-	123
	Exit	15	18	-	-	33
	Total	109	47	-	-	156
Weekday PM Peak Hour	Enter	18	91	14	-	123
	Exit	90	99	18	-	207
	Total	109	189	32	-	330
Saturday Peak Hour	Enter	34	117	-	-	151
	Exit	29	108	-	-	137
	Total	63	225	-	-	288

¹125,000 square feet of LUC 710

²50,000 square feet of LUC 820

³2,600 square feet of LUC 911

⁴ parking garage – trips assigned to land uses

As shown in Table 1, the site generated the most trips during the weekday PM peak hour, when 330 trips visited the site. During the weekday AM peak hour, 156 trips visited the site. During the Saturday peak hour, 288 trips visited the site.

Proposed Site Trip Generation

As indicated above, the redevelopment will include a conversion from office to hotel, and a conversion of some retail to restaurant, a reduction of overall retail space, and the addition of a residential tower above the parking garage. As shown on the attached site plan, the proposed development will consist of an approximately 180-room hotel at 477 Congress Street and 300 residential units at 45 Brown Street.

The proposed restaurant space was divided into the space that would primarily serve the visitors of the hotel, and the space that would likely serve outside guests. The square footage on both the first floor and the top floor were included as square footage that would likely generate trips outside of the hotel. The second floor space was assumed to be the hotel restaurant that is included in that land use code. Although it is likely that the restaurant spaces will be higher end restaurants, in order to present a worst case scenario, the trip generation of the restaurant space was based on LUC 932, High Turnover (Sit-Down) Restaurant. Of the existing retail space, approximately 20,000 square feet will be maintained. In addition, a 333-space parking garage is proposed to support these uses.

VHB has calculated the trip generation of these proposed uses. The trip generation for the residential units, hotel, restaurant, and retail uses were calculated based on LUC 222 – Multifamily Housing (High Rise). The hotel trip generation was calculated based on LUC 310 – Hotel. Although the restaurant is anticipated to be high end, the trips were calculated using the rates for LUC 932 – High Turnover (Sit-Down) Restaurant in the event the space is ever used as such. The retail space trip rate continued to be calculated by LUC 820 – Shopping Center.

The resulting trip generation of the proposed site was determined and is presented in Table 2. For the purposes of this initial evaluation, no adjustment was made for trips made via other modes.

As shown, the proposed site is anticipated to generate 383 trips during the highest generating peak, the Saturday midday peak hour. During the weekday AM and PM peak hours, the proposed redevelopment will generate 241 and 336 trips, respectively.

Table 2. Trip Generation – Proposed Land Uses

		Residential ¹	Hotel ²	Retail ³	Restaurant ⁴	Parking Garage ⁵	Total Trips
Weekday AM peak	Enter	23	50	12	22	-	107
	Exit	74	35	7	18	-	134
	Total	97	85	19	40	-	241
Weekday PM peak	Enter	68	56	37	24	-	185
	Exit	43	53	40	15	-	151
	Total	111	109	77	39	-	336
Saturday peak	Enter	65	73	47	23	-	208
	Exit	53	57	43	22	-	175
	Total	118	130	90	45	-	383

¹ 300 units of LUC 222

² 180 rooms of LUC 310

³ 20,000 square feet of LUC 820

⁴ 4,000 square feet of LUC 932

⁵ parking garage – trips assigned to land uses

Net Trip Generation

The net trip generation of the site was calculated and is illustrated in Table 3 below. The net trip generation of the redevelopment was calculated by comparing the trips recently generated by the site with those anticipated to be generated by the redeveloped site.

Table 3. Net Trip Generation

		Existing Site	Proposed Site	Net Trips
Weekday AM Peak Hour	Enter	123	107	-16
	Exit	33	134	+101
	Total	156	241	+85
Weekday PM Peak Hour	Enter	123	185	+62
	Exit	207	151	-56
	Total	330	336	+6
Saturday Peak Hour	Enter	151	208	+57
	Exit	137	175	+38
	Total	288	383	+95

Based on the trips determined above, the redeveloped site will generate between 6 and 95 trips above those previously generated by the site depending on the hour. The recently highest generating peak hour occurred during the weekday PM peak hour when the site was generating 330 trips. The peak hour of the redeveloped site is anticipated to occur on Saturday with 383 generated trips, a difference of 53 peak hour trips.

MaineDOT Traffic Movement Permit

Any project which generates 100 or more passenger car equivalents (PCE) trips during the peak hour of traffic generation, must file a Traffic Movement Permit application with Maine Department of Transportation. As outlined above, a comparison of the trips generated by the recently occupied site and the proposed site reveals that a difference of only 95 peak hour trips at its highest.

An analysis of the peak hour trips calculated using the 7th Edition of Trip Generation yields the result that the recently occupied site generated more peak hour trips than the proposed site. During the PM peak hour, the previously occupied site generated 476 trips based on 7th Edition trip rates. An analysis of the proposed site trips yields a

Saturday peak hour with 449 trips anticipated. Therefore, the MaineDOT Traffic Movement Permit is not required. All backup calculations are provided in the Appendix.

Other Considerations – Internal Trips

Mixed use developments such as that proposed at 45 Brown Street and 477 Congress Street generate internal capture trips which are defined as trips having multiple destinations within a given project site (for example, a resident of 45 Brown Street who visits a restaurant at 477 Congress Street or a hotel guest who also visits the retail offerings). The level of shared trips/internal trip capture for this project was determined based on information published by the Transportation Research Board (TRB) in NCHRP Report 684. This report provides particular percentages of internal trips for Office, Retail, Restaurant, Residential, and Hotel land uses when those uses are located together. East percentage was applied to the appropriate land uses and resulted in the percentages of internal trips for the site presented in Table 4. Backup data is provided attached to this memorandum.

Table 4. Internal Trip Percentages

		Existing Site	Proposed Site
Weekday AM Peak Hour	Enter	7%	9%
	Exit	24%	7%
	Total	10%	8%
Weekday PM Peak Hour	Enter	8%	21%
	Exit	5%	25%
	Total	6%	23%
Saturday Peak Hour	Enter	5%	22%
	Exit	6%	26%
	Total	6%	24%

As shown, with only the office and retail located at the site, the percentages of internal trips between uses is typically between seven and ten percent. The exception is exiting AM trips because the total number of exiting trips is rather low during that period. The internal trips in this case are likely folks stopping at the retail space on their way into work (presumably to pick up a cup of coffee or other convenience item on their way in).

The internally captured trips increase significantly as more land uses are located on the site. There is cross traffic expected between all of the land uses, especially during the PM and Saturday peak hours. Residents will visit restaurants, hotel guests will visit retail, and restaurant goers will visit retail shops while at the site.

When the traffic analysis is conducted, the effect of these internal trips to reduce the traffic impact on area roadways will be incorporated.

Other Considerations – Alternative Modes

As outlined above, the proposed site is located such that a number of trips are likely to occur by walking, bicycling and transit. As a result, the site will generate fewer vehicle trips than was calculated based on ITE trip rates. Recent census data indicates that residents in this area (bordering on Census tracts 3 and 6) significantly use alternate modes to get to their employment (backup information is provided attached to the document). Approximately 38 percent of residents travel by foot to work, seven percent of residents travel by public transportation, and one percent of residents travel by bicycle. Applying these rates to the residential trips at the site would result in a net reduction of 41 peak hour trips. Similar mode shares are likely to be reached at the other land uses on the site and another 60 to 80 peak hour trips that will be made by bicycle, pedestrian or transit.

When the traffic analysis for the site is conducted, these mode splits will be applied to the trip generation.

Other Considerations – Additional Analysis

Although the redevelopment is anticipated to cause only a minor increase in vehicular trips to the site and not require a MaineDOT Traffic Movement Permit, the City of Portland has expressed some concern regarding curb usage and the operations of the site. A large number of the trips to the hotel portion of the site will reach the garage via a valet operation at the front of the site. As such, the City has requested that a review and analysis of valet demand be completed and the resulting impact of the valet on the current parking supply be quantified. This analysis will be conducted as the permitting of the hotel moves forward. A successful hotel valet operation will be observed and scaled appropriately for the proposed hotel at 477 Congress Street to ensure that a backup does not occur on either Congress or Preble Streets and adversely impact traffic operations on those roadways. Any impact that that valet operation has on the curb usage in front of the site will be determined.

The City has also requested that the Project conduct an operational analysis of the four intersections at the corners of the block:

- Congress Street and Preble Street
- Congress Street and Brown Street
- Cumberland Avenue and Brown Street
- Cumberland Avenue and Preble Street

Based on physical constraints and recent or proposed modifications at these locations, it is unlikely that intersection improvements will be required. However, it is important to confirm that the infrastructure is adequate to accommodate the proposed traffic. Each of these concerns will be addressed in future traffic analysis.

Finally, there is currently, and will continue to be, parking facilities provided on the site. The traffic analysis for the site will include a discussion of the existing parking demand on the site and how that demand will be accommodated in the area when the project is developed. In addition, the existing on-street parking demand will be noted and any project related net loss of on street parking supply will determined.

Conclusions

As anticipated, the redevelopment of the 45 Brown Street and 477 Congress Street will result in a net trip generation of less than 100 passenger car equivalents and as such will not require a MaineDOT traffic access permit. However, in order to address concerns raised by the City of Portland, a detailed traffic analysis will be conducted that will include a review of traffic operations at area intersections, a review of the proposed valet operation, and a determination of net parking impacts.

Trip Generation - Project Specific for Existing Condition
Total Site generated trips (not accounting for internal, pass-by, or diverted trips)

Total Site generated trips (not accounting for internal, pass-by, or diverted trips)

Site Land Uses and Descriptions			
Code	Land Use	Size	Unit
45 Brown Street			
Time and Temperature Building			
710*	General Office Building	120	KSF
820	Shopping Center	50	KSF
911	Walk In Bank	2.6	KSF

AM PK HR OF ADJACENT STREET TRAFFIC										
directional dist.		average		regression		# trips				
% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips	Entering	Exiting	
86%	14%	0.83	100	0.90	109	regression	109	94	15	
62%	38%	0.94	47	0.50	177	average	47	29	18	

PM PK HR OF ADJACENT STREET TRAFFIC										
directional dist.		average		regression		# trips				
% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips	Entering	Exiting	
17%	83%	0.87	104	0.86	108	regression	108	18	90	
48%	52%	3.81	191	0.82	330	average	191	91	99	
44%	56%	12.13	32			average	32	14	18	

*Used Dense Multi-Use Urban Setting in ITE

	total	entering	exiting
AM Peak Hour Total Site Trips:	156	123	33

	PM Peak Hour Total Site Trips:	330	124	206
--	--------------------------------	-----	-----	-----

Trip Generation - Project Specific for Existing Conditions
Total Site generated trips (not accounting for internal trips)

Site Land Uses and Descriptions				SATURDAY PK HR OF GENERATOR							
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips	
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips
45 Brown Street											
Time and Temperature Building											
710*	General Office Building	120	KSF	54%	46%	0.53	64	-	-	average	64
820	Shopping Center	50	KSF	52%	48%	4.50	225	0.87	364	average	225
911	Walk In Bank	2.6	KSF								

*Used Dense Multi-Use Urban Setting in ITE

Saturday Peak Hour Total Site Trips:	289	151	137
--------------------------------------	-----	-----	-----

Trip Generation - Project Specific

Total Site generated trips (not accounting for internal, pass-by, or diverted trips)

Site Land Uses and Descriptions				AM PK HR OF ADJACENT STREET TRAFFIC										PM PK HR OF ADJACENT STREET TRAFFIC											
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips				directional dist.		average		regression		# trips					
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips			% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips			Entering	Exiting
45 Brown Street				24%	76%	0.31	93	0.90	97	regression	97	23	74	61%	39%	0.36	108	0.96	111	regression	111	68	43		
Time and Temperature Building				59%	41%	0.47	85	0.85	85	regression	85	50	35	51%	49%	0.60	108	0.80	109	regression	109	56	53		
310	Hotel	180	ROOMS	55%	45%	9.94	40	-	-	average	40	22	18	62%	38%	9.77	39	-	-	average	39	24	15		
932	High-Turnover (Sit-Down) Restauran	4	KSF	62%	38%	0.94	19	0.50	162	average	19	12	7	48%	52%	3.81	76	0.82	165	average	76	37	40		
820	Shopping Center	20	KSF				0																		
												total	entering										exiting		
AM Peak Hour Total Site Trips:												241	107	PM Peak Hour Total Site Trips:									335	184	151

Trip Generation - Project Specific

Total Site generated trips (not accounting for internal, pass-t

Site Land Uses and Descriptions				SATURDAY PK HR OF GENERATOR									
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips		Entering	Exiting
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips		
45 Brown Street													
222	Multi-Family Housing (High Rise)	300	UNITS	55%	45%	0.36	108	0.98	118	regression	118	65	53
Time and Temperature Building													
310	Hotel	180	ROOMS	56%	44%	0.72	130	0.80	129	average	130	73	57
932	High-Turnover (Sit-Down) Restauran	4	KSF	51%	49%	11.19	45	-	-	average	45	23	22
820	Shopping Center	20	KSF	52%	48%	4.50	90	0.87	174	average	90	47	43
					</								

Brown St Tower Redevelopment
Trip Generation Summary

Peak Period	Proposed Site Generated Trips					Existing Trip Generation					Net New Trips Total
	Total	Transit	Bike & Pedestrian	Internal Capture	Net Vehicles	Total	Transit	Bike & Pedestrian	Internal Capture	Net Vehicles	
Weekday Morning		3%	43%	8%			3%	43%	10%		
Enter	107	4	46	10	47	123	4	53	8	58	-16
Exit	<u>134</u>	<u>5</u>	<u>57</u>	<u>10</u>	<u>62</u>	<u>33</u>	<u>1</u>	<u>14</u>	<u>8</u>	<u>10</u>	100
Total	241	8	103	20	109	156	5	67	16	68	84
Weekday Evening		3%	43%	23%			3%	43%	6%		
Enter	184	6	79	38	61	124	4	53	10	56	60
Exit	<u>151</u>	<u>5</u>	<u>65</u>	<u>38</u>	<u>43</u>	<u>206</u>	<u>7</u>	<u>89</u>	<u>10</u>	<u>101</u>	-56
Total	335	11	144	76	104	330	11	142	20	157	4
Saturday		3%	43%	23%			3%	43%	6%		
Enter	207	7	89	43	68	151	5	65	9	72	55
Exit	<u>175</u>	<u>6</u>	<u>75</u>	<u>43</u>	<u>51</u>	<u>137</u>	<u>5</u>	<u>59</u>	<u>9</u>	<u>65</u>	38
Total	382	13	164	86	118	289	10	124	17	137	93

Peak Period	New Trips
Weekday Morning	
Enter	107
Exit	134
Total	241
Weekday Evening	
Enter	184
Exit	151
Total	335
Saturday	
Enter	207
Exit	175
Total	382

Brown St Tower Redevelopment

AM Pk Hr

Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				<u>All External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Office	4%	4	90	94	90	0	0	27%	4	11	15	11	0	0	7%	8	101	109	101	0	0
Retail	14%	4	25	29	25	0	0	22%	4	14	18	14	0	0	17%	8	39	47	39	0	0
	7%	8	115	123	115	0	0	24%	8	25	33	25	0	0	10%	16	140	156	140	0	0

PM Pk Hr

Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				<u>All External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Office	11%	2	16	18	16	0	0	9%	8	82	90	82	0	0	9%	10	98	108	98	0	0
Retail	8%	8	97	105	97	0	0	2%	2	115	117	115	0	0	5%	10	212	222	212	0	0
	8%	10	113	123	113	0	0	5%	10	197	207	197	0	0	6%	20	310	330	310	0	0

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Brown St Tower Redevelopment			Organization:	VHB
Project Location:	Portland, ME			Performed By:	ELQ
Scenario Description:	Existing Trip Generation			Date:	1/10/2020
Analysis Year:				Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	120	1K sf	109	94	15
Retail	820 and 911	53	1K sf	47	29	18
Restaurant				0		
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
Total				156	123	33

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	0	0
Retail	4		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	156	123	33
Internal Capture Percentage	10%	7%	24%
External Vehicle-Trips ³	140	115	25
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	4%	27%
Retail	14%	22%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	Brown St Tower Redevelopment
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	94	94	1.00	15	15
Retail	1.00	29	29	1.00	18	18
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	0	0	1.00	0	0
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	9	0	0	0
Retail	5		2	0	3	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	0	0	0	0
Retail	4		0	0	0	0
Restaurant	13	2		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	5	0	0		0
Hotel	3	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	4	90	94	90	0	0
Retail	4	25	29	25	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	4	11	15	11	0	0
Retail	4	14	18	14	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Brown St Tower Redevelopment			Organization:	VHB
Project Location:	Portland, ME			Performed By:	ELQ
Scenario Description:	Existing Trip Generation			Date:	1/10/2020
Analysis Year:				Checked By:	
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	120	1K sf	108	18	90
Retail	820 and 911	53	1K sf	222	105	117
Restaurant				0		
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
Total				330	123	207

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0				
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	2		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	330	123	207
Internal Capture Percentage	6%	8%	5%
External Vehicle-Trips ³	310	113	197
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	11%	9%
Retail	8%	2%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	Brown St Tower Redevelopment
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	18	18	1.00	90	90
Retail	1.00	105	105	1.00	117	117
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	0	0	1.00	0	0
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		18	4	0	2	0
Retail	2		34	5	30	6
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		8	0	0	0	0
Retail	6		0	0	0	0
Restaurant	5	53		0	0	0
Cinema/Entertainment	1	4	0		0	0
Residential	10	11	0	0		0
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	2	16	18	16	0	0
Retail	8	97	105	97	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	8	82	90	82	0	0
Retail	2	115	117	115	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Brown St Tower Redevelopment

AM Pk Hr

Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				All <u>External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Retail	17%	2	10	12	10	0	0	14%	1	6	7	6	0	0	16%	3	16	19	16	0	0
Restaurant	27%	6	16	22	16	0	0	17%	3	15	18	15	0	0	23%	9	31	40	31	0	0
Residential	4%	1	22	23	22	0	0	7%	5	69	74	69	0	0	6%	6	91	97	91	0	0
Hotel	2%	1	49	50	49	0	0	3%	1	34	35	34	0	0	2%	2	83	85	83	0	0
	9%	10	97	107	97	0	0	7%	10	124	134	124	0	0	8%	20	221	241	221	0	0

PM Pk Hr

Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				All <u>External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Retail	27%	10	27	37	27	0	0	48%	19	21	40	21	0	0	38%	29	48	77	48	0	0
Restaurant	46%	11	13	24	13	0	0	67%	10	5	15	5	0	0	54%	21	18	39	18	0	0
Residential	19%	13	55	68	55	0	0	16%	7	36	43	36	0	0	18%	20	91	111	91	0	0
Hotel	7%	4	52	56	52	0	0	4%	2	51	53	51	0	0	6%	6	103	109	103	0	0
	21%	38	147	185	147	0	0	25%	38	113	151	113	0	0	23%	76	260	336	260	0	0

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Brown St Tower Redevelopment			Organization:	VHB
Project Location:	Portland, ME			Performed By:	ELQ
Scenario Description:	Proposed Trip Generation			Date:	1/10/2020
Analysis Year:				Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	20	1K sf	19	12	7
Restaurant	932	4	1K sf	40	22	18
Cinema/Entertainment				0		
Residential	222	300	Units	97	23	74
Hotel	310	180	Rooms	85	50	35
All Other Land Uses ²				0		
Total				241	107	134

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		1	0	0	0
Restaurant	0	1		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	4	0		0
Hotel	0	0	1	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	241	107	134
Internal Capture Percentage	8%	9%	7%
External Vehicle-Trips ³	221	97	124
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	17%	14%
Restaurant	27%	17%
Cinema/Entertainment	N/A	N/A
Residential	4%	7%
Hotel	2%	3%

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	Brown St Tower Redevelopment
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	12	12	1.00	7	7
Restaurant	1.00	22	22	1.00	18	18
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	23	23	1.00	74	74
Hotel	1.00	50	50	1.00	35	35

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	2		1	0	1	0
Restaurant	6	3		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	1	1	15	0		0
Hotel	26	5	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	5	0	0	0
Retail	0		11	0	0	0
Restaurant	0	1		0	1	2
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	4	0		0
Hotel	0	0	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	2	10	12	10	0	0
Restaurant	6	16	22	16	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	22	23	22	0	0
Hotel	1	49	50	49	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	1	6	7	6	0	0
Restaurant	3	15	18	15	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	69	74	69	0	0
Hotel	1	34	35	34	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Brown St Tower Redevelopment	Organization:	VHB		
Project Location:	Portland, ME	Performed By:	ELQ		
Scenario Description:	Proposed Trip Generation	Date:	1/10/2020		
Analysis Year:		Checked By:			
Analysis Period:	PM Street Peak Hour	Date:			

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	20	1K sf	77	37	40
Restaurant	932	4	1k SF	39	24	15
Cinema/Entertainment				0		
Residential	222	300	Units	111	68	43
Hotel	310	180	Rooms	109	56	53
All Other Land Uses ²				0		
Total				336	185	151

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					500	
Restaurant					500	
Cinema/Entertainment						
Residential		500	500			
Hotel					500	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		7	0	10	2
Restaurant	0	6		0	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	0	3	3	0		1
Hotel	0	1	1	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	336	185	151
Internal Capture Percentage	23%	21%	25%
External Vehicle-Trips ³	260	147	113
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	27%	48%
Restaurant	46%	67%
Cinema/Entertainment	N/A	N/A
Residential	19%	16%
Hotel	7%	4%

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	Brown St Tower Redevelopment
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	37	37	1.00	40	40
Restaurant	1.00	24	24	1.00	15	15
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	68	68	1.00	43	43
Hotel	1.00	56	56	1.00	53	53

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		12	2	10	2
Restaurant	0	6		1	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	2	16	8	0		1
Hotel	0	8	36	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	0	0	3	0
Retail	0		7	0	31	10
Restaurant	0	19		0	11	40
Cinema/Entertainment	0	1	1		3	1
Residential	0	3	3	0		7
Hotel	0	1	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	10	27	37	27	0	0
Restaurant	11	13	24	13	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	55	68	55	0	0
Hotel	4	52	56	52	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	19	21	40	21	0	0
Restaurant	10	5	15	5	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	7	36	43	36	0	0
Hotel	2	51	53	51	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Brown and Congress - Existing

Saturday peak hour

Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				All <u>External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Office	6%	2	32	34	32	0	0	21%	6	23	29	23	0	0	13%	8	55	63	55	0	0
Retail	5%	6	111	117	111	0	0	2%	2	106	108	106	0	0	4%	8	217	225	217	0	0
	5%	8	143	151	143	0	0	6%	8	129	137	129	0	0	6%	16	272	288	272	0	0

Brown and Congress - Existing

Saturday peak hour																					
Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				All <u>External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Office	6%	2	32	34	32	0	0	21%	6	23	29	23	0	0	13%	8	55	63	55	0	0
Retail	5%	6	111	117	111	0	0	2%	2	106	108	106	0	0	4%	8	217	225	217	0	0
	5%	8	143	151	143	0	0	6%	8	129	137	129	0	0	6%	16	272	288	272	0	0

Brown Tower Redevelopment

Saturday Peak Hour

Land Use	Entering							Exiting							Totals						
	<u>All Entering Trips</u>				Entering <u>External</u>			<u>All Exiting Trips</u>				Exiting <u>External</u>			<u>All Trips</u>				All <u>External</u>		
	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized	% int.	Internal	External	Total	Vehicles	Transit	Non-Motorized
Retail	30%	14	33	47	33	0	0	47%	20	23	43	23	0	0	38%	34	56	90	56	0	0
Restaurant	48%	11	12	23	12	0	0	68%	15	7	22	7	0	0	58%	26	19	45	19	0	0
Residential	23%	15	50	65	50	0	0	17%	9	44	53	44	0	0	20%	24	94	118	94	0	0
Hotel	8%	6	67	73	67	0	0	4%	2	55	57	55	0	0	6%	8	122	130	122	0	0
	22%	46	162	208	162	0	0	26%	46	129	175	129	0	0	24%	92	291	383	291	0	0

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Brown St Tower Redevelopment			Organization:	VHB
Project Location:	Portland, ME			Performed By:	ELQ
Scenario Description:	Proposed Trip Generation			Date:	1/10/2020
Analysis Year:				Checked By:	
Analysis Period:	Saturday			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	820	20	1K sf	90	47	43
Restaurant	932	4	1k SF	45	23	22
Cinema/Entertainment				0		
Residential	222	300	Units	118	65	53
Hotel	310	180	Rooms	130	73	57
All Other Land Uses ²				0		
Total				383	208	175

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					500	
Restaurant					500	
Cinema/Entertainment						
Residential		500	500			
Hotel					500	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		7	0	11	2
Restaurant	0	9		0	4	2
Cinema/Entertainment	0	0	0		0	0
Residential	0	4	3	0		2
Hotel	0	1	1	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	383	208	175
Internal Capture Percentage	24%	22%	26%
External Vehicle-Trips ³	291	162	129
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	30%	47%
Restaurant	48%	68%
Cinema/Entertainment	N/A	N/A
Residential	23%	17%
Hotel	8%	4%

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Project Name:	Brown St Tower Redevelopment
Analysis Period:	Saturday

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	47	47	1.00	43	43
Restaurant	1.00	23	23	1.00	22	22
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	65	65	1.00	53	53
Hotel	1.00	73	73	1.00	57	57

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		12	2	11	2
Restaurant	1	9		2	4	2
Cinema/Entertainment	0	0	0		0	0
Residential	2	20	10	0		2
Hotel	0	9	39	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	3	0
Retail	0		7	0	30	12
Restaurant	0	24		0	10	52
Cinema/Entertainment	0	2	1		3	1
Residential	0	4	3	0		9
Hotel	0	1	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	14	33	47	33	0	0
Restaurant	11	12	23	12	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	50	65	50	0	0
Hotel	6	67	73	67	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	20	23	43	23	0	0
Restaurant	15	7	22	7	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	44	53	44	0	0
Hotel	2	55	57	55	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

B08301

MEANS OF TRANSPORTATION TO WORK

Universe: Workers 16 years and over

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Census Tract 3, Cumberland County, Maine		Census Tract 6, Cumberland County, Maine	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	1,317	+/-192	1,483	+/-249
Car, truck, or van:	661	+/-157	583	+/-146
Drove alone	579	+/-156	497	+/-126
Carpooled:	82	+/-54	86	+/-66
In 2-person carpool	67	+/-52	86	+/-66
In 3-person carpool	0	+/-10	0	+/-10
In 4-person carpool	5	+/-8	0	+/-10
In 5- or 6-person carpool	10	+/-15	0	+/-10
In 7-or-more-person carpool	0	+/-10	0	+/-10
Public transportation (excluding taxicab):	45	+/-36	153	+/-76
Bus or trolley bus	45	+/-36	136	+/-70
Streetcar or trolley car (carro publico in Puerto Rico)	0	+/-10	0	+/-10
Subway or elevated	0	+/-10	0	+/-10
Railroad	0	+/-10	0	+/-10
Ferryboat	0	+/-10	17	+/-20
Taxicab	10	+/-15	7	+/-11
Motorcycle	0	+/-10	11	+/-15
Bicycle	15	+/-17	10	+/-15
Walked	552	+/-120	506	+/-159
Other means	0	+/-10	25	+/-40
Worked at home	34	+/-33	188	+/-72

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic

entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '***' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

Trip Generation - Project Specific for Existing Condition
 Total Site generated trips (not accounting for internal, pass-by, or diverted trips)

Site Land Uses and Descriptions				AM PK HR OF ADJACENT STREET TRAFFIC										7th edition			
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips		Entering		Avg Rate	Total	Entering	Exiting
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips						
45 Brown Street																	
Time and Temperature Building																	
710*	General Office Building	120	KSF	86%	14%	0.83	100	0.90	109	regression	109	94	15	1.55	186	160	26
820	Shopping Center	50	KSF	62%	38%	0.94	47	0.50	177	average	47	29	18	1.03	52	32	20
911	Walk In Bank	2.6	KSF				0								0	0	0
							0										
											total	entering	exiting				
AM Peak Hour Total Site Trips:											156	123	33	Site Trips:	238	192	46

*Used Dense Multi-Use Urban Setting in ITE

Trip Generation - Project Specific for Existing Co
 Total Site generated trips (not accounting for interna

Site Land Uses and Descriptions				PM PK HR OF ADJACENT STREET TRAFFIC										7th edition			
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips							
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips	Entering	Exiting	Avg Rate	Total	Entering	Exiting
45 Brown Street																	
Time and Temperature Building																	
710*	General Office Building	120	KSF	17%	83%	0.87	104	0.86	108	regression	108	18	90	1.49	179	30	148
820	Shopping Center	50	KSF	48%	52%	3.81	191	0.82	330	average	191	91	99	3.75	188	90	98
911	Walk In Bank	2.6	KSF	44%	56%	12.13	32			average	32	14	18	42.02	109	48	61

Trip Generation - Project Specific for Existing Co
 Total Site generated trips (not accounting for interna

Site Land Uses and Descriptions				SATURDAY PK HR OF GENERATOR										7th edition			
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips							
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips	Entering	Exiting	Avg Rate	Total	Entering	Exiting
45 Brown Street																	
Time and Temperature Building																	
710*	General Office Building	120	KSF	54%	46%	0.53	64	-	-	average	64	34	29	0.41	49	27	23
820	Shopping Center	50	KSF	52%	48%	4.50	225	0.87	364	average	225	117	108	4.97	249	129	119
911	Walk In Bank	2.6	KSF												0	0	0

Trip Generation - Proposed Site
 Total Site generated trips (not accounting for internal, pass-by, or diverted trips)

Site Land Uses and Descriptions				AM PK HR OF ADJACENT STREET TRAFFIC										7th edition			
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips				Avg Rate	Total	Entering	Exiting
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips	Entering	Exiting				
45 Brown Street																	
222	Multi-Family Housing (High Rise)	300	UNITS	24%	76%	0.31	93	0.90	97	regression	97	23	74	0.30	90	22	68
Time and Temperature Building																	
310	Hotel	180	ROOMS	59%	41%	0.47	85	0.85	85	regression	85	50	35	0.67	121	71	49
932	High-Turnover (Sit-Down) Restauran	4	KSF	55%	45%	9.94	40	-	-	average	40	22	18	11.52	46	25	21
820	Shopping Center	20	KSF	62%	38%	0.94	19	0.50	162	average	19	12	7	1.03	21	13	8
							0										
											total	entering	exiting	total			
AM Peak Hour Total Site Trips:											241	107	134	Site Trips:	277	131	146

Trip Generation - Proposed Site
 Total Site generated trips (not accounting for internal, pass-b

Site Land Uses and Descriptions				PM PK HR OF ADJACENT STREET TRAFFIC										7th edition			
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips		Entering	Exiting				
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips						
45 Brown Street																	
222	Multi-Family Housing (High Rise)	300	UNITS	61%	39%	0.36	108	0.96	111	regression	111	68	43	0.35	105	64	41
Time and Temperature Building																	
310	Hotel	180	ROOMS	51%	49%	0.60	108	0.80	109	regression	109	56	53	0.70	126	64	62
932	High-Turnover (Sit-Down) Restauran	4	KSF	62%	38%	9.77	39	-	-	average	39	24	15	10.92	44	27	17
820	Shopping Center	20	KSF	48%	52%	3.81	76	0.82	165	average	76	37	40	3.75	75	36	39

Trip Generation - Proposed Site
 Total Site generated trips (not accounting for internal, pass-b

Site Land Uses and Descriptions				SATURDAY PK HR OF GENERATOR										7th edition			
Code	Land Use	Size	Unit	directional dist.		average		regression		# trips				Avg Rate	Total	Entering	Exiting
				% enter	% exit	Avg Rate	Total by Avg	r ²	total by Eq'n	Method Chosen	Total Trips	Entering	Exiting				
45 Brown Street																	
222	Multi-Family Housing (High Rise)	300	UNITS	55%	45%	0.36	108	0.98	118	regression	118	65	53	0.40	120	66	47
Time and Temperature Building																	
310	Hotel	180	ROOMS	56%	44%	0.72	130	0.80	129	average	130	73	57	0.87	157	88	69
932	High-Turnover (Sit-Down) Restauran	4	KSF	51%	49%	11.19	45	-	-	average	45	23	22	20.00	80	41	39
820	Shopping Center	20	KSF	52%	48%	4.50	90	0.87	174	average	90	47	43	4.97	99	52	48

Brown St Tower Redevelopment
Trip Generation Summary

Peak Period	Proposed Site Generated Trips					Existing Trip Generation					Net New Trips Total
	Total	Transit	Bike & Pedestrian	Internal Capture	Net Vehicles	Total	Transit	Bike & Pedestrian	Internal Capture	Net Vehicles	
Weekday Morning		3%	43%	8%			3%	43%	10%		
Enter	131	4	56	12	59	192	7	83	12	91	-62
Exit	<u>146</u>	<u>5</u>	<u>63</u>	<u>12</u>	<u>67</u>	<u>46</u>	<u>2</u>	<u>20</u>	<u>12</u>	<u>12</u>	100
Total	277	9	119	23	126	238	8	102	24	103	38
Weekday Evening		3%	43%	23%			3%	43%	6%		
Enter	191	7	82	40	63	168	6	72	14	76	22
Exit	<u>158</u>	<u>5</u>	<u>68</u>	<u>40</u>	<u>45</u>	<u>307</u>	<u>10</u>	<u>132</u>	<u>14</u>	<u>150</u>	-149
Total	350	12	150	79	108	476	16	204	29	226	-127
Saturday		3%	43%	23%			3%	43%	6%		
Enter	246	8	106	51	81	156	5	67	9	74	90
Exit	<u>203</u>	<u>7</u>	<u>87</u>	<u>51</u>	<u>58</u>	<u>142</u>	<u>5</u>	<u>61</u>	<u>9</u>	<u>67</u>	61
Total	449	15	193	102	139	298	10	128	18	142	151



9. ZONING ASSESSMENT

The project is in the City's B-3 Zone and is included in the Congress Street Historic District. The Time & Temperature Tower and the Preble Street buildings are identified as "Contributing Structures" to the Historic District. In addition, The Longfellow House and Maine Historical Society Library that abut the property have Landmark status. The building frontage along Congress Street is within the Pedestrian Activities District Overlay Zone (PAD) and Preble Street is a PAD Encouragement Area.

The current land use designations for 477-481 Congress Street are approximately 123,000 square feet of office and 2,600 square feet of bank. The current land use for 22 Preble Street is approximately 50,000 square feet of office and retail. The gross square footage of the buildings, including basements and sub basements, is 202,000 square feet.

The project includes the conversion of 477 Congress Street into a 196-room hotel with associated amenity spaces, retail, and a future restaurant.

The proposed uses are permitted within the B-3 zone. The attached Zoning Assessment Table shows the project complies with dimensional requirements specified in the City's Land Use Ordinance.

Inclusionary Zoning for Hotel Projects

Per Section 18.2.5 of the Land Use Code, Inclusionary Housing for Hotel Projects, the hotel use is a conditional use subject to compliance with the requirements of that section. All hotel projects shall provide one Low Income Housing for rent in the City for every 28 rooms in the hotel project. For this 196-room project, that equates to 7 units of Low-Income Housing. The applicant proposes to meet the requirements of this section through payment of a fee-in-lieu per subsection 18.2.5(E). The current fee-in-lieu is \$3,086 per hotel guest room, or \$558,566. This amount will be paid to the City's Housing Trust Fund.

9.1 ATTACHMENTS

- City of Portland Zoning Assessment Table



ZONING ANALYSIS Relevant Zone(s) B-3; PAD Overlay

All Projects:

	Required	Proposed
Lot Size	None	78,680 SF
Area Per Dwelling Unit	None	N/A
Minimum Street Frontage	15'	121'
Front Yard Minimum	5'	0'
Front Yard Maximum	None	0'
Rear Yard	None	0'
Yard Right	None	0'
Yard Left	None	0'
Side Street Setback	15'	0' (existing)
Step Back	30'	0' (existing)
Maximum Lot Coverage	100%	81%
Minimum Lot Coverage	None	N/A
Maximum Height	210'	158'-8" (existing)
Open Space	N/A	0
Maximum Impervious Area	100%	100%
Pavement Setback	None	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	None	90
Loading Bays	None	None
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements Not Applicable

	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) Not 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):			

10. SITE PLAN STANDARDS ASSESSMENT

Chapter 6 of the City of Portland's Land Use Code outlines the use standards that must be met by Major Site Plan projects. The proposed development will follow the City's design standards as described in the following section.

10.1 DETERMINATION OF USE

Per table 6-C of the Land Use Code, Hotel, retail, and restaurant uses are all Permitted in the B-3 zone.

10.2 SUPPLEMENTAL USE STANDARDS (SECTION 6.4 OF LAND USE CODE)

Adult business establishments – not applicable to this project.

Bars and restaurants in the B-6 zone – not applicable to this project.

Bed and breakfasts – not applicable to this project.

Campgrounds – not applicable to this project.

Commercial uses in the B-1/B-1b zones – not applicable to this project.

Correctional Pre-release facilities – not applicable to this project.

Hostels – not applicable to this project.

Lodging Houses – not applicable to this project.

Marijuana-related uses – not applicable to this project.

Marine uses – not applicable to this project.

Multiplexes – not applicable to this project.

Office parks in the O-P zone – not applicable to this project.

Planned unit development in the IR-3 zone – not applicable to this project.

Retail in the B-3/B-3b/B-3c and B-5/B-5b zones – Retail will not include wholesale and bulk purchase lumber and construction supply sales.

Solar energy systems – not applicable to this project.

Tow lots – not applicable to this project.

Wind energy systems – not applicable to this project.

10.3 CONDITIONAL USE STANDARDS (SECTION 6.5 OF LAND USE CODE)

Not applicable. There are no conditional uses proposed with this project.

10.4 ACCESSORY USES (SECTION 6.6 OF LAND USE CODE)

Not applicable. There are no accessory uses proposed with this project.

10.5 TEMPORARY USES (SECTION 6.7 OF LAND USE CODE)

Not applicable. There are no temporary uses proposed with this project.

10.6 PERFORMANCE STANDARDS (SECTION 6.8 OF LAND USE CODE)

Design. In the B-3 zone, all building and site alterations, and all provision for landscaping and other pedestrian amenities shall be consistent with the Downtown Urban Design Guidelines.

This proposed project is a change in use of existing buildings; no new buildings or site alterations are proposed. Renovations to building facades are shown on the attached architectural drawings. Proposed alterations to the public sidewalks are shown on the plans and include provision of brick sidewalk along all building frontage and street trees as approved by the City arborist.

Exterior lighting. All exterior lighting will be full cut-off fixtures to direct illumination onto the site and prevent illumination onto neighboring properties.

Historic Resources. The project is within the Downtown Historic District and is subject to the preservation provisions of the Article 17. An application has been submitted to the Historic Preservation Commission for review.

Noise. No noise generated by the project will exceed the noise standard in Table 6-G of the land use code. For the B-3 zone, this is 60 dBA in the daytime/evening (7 a.m. – 9 p.m.) and 55 dBA at night (9 p.m. – 7 a.m.). Noises from construction and maintenance activities are exempt between 7:00 a.m. and 10:00 p.m.

Waste Disposal. Waste disposal will be via a licensed hauler. All solid waste and recycling will be removed from the premises via the service entrance on Preble Street.



To: City of Portland DPW and
MaineDOT

Date: May 21, 2021

Memorandum

Project #: 55321.01

From: Jennifer Conley, PE, PTOE

Re: Time and Temperature Building
477 Congress Street
Traffic Impact Study

A redevelopment project is currently being contemplated for the property located at 477 Congress Street. On the 477 Congress Street site, an approximately 123,000 sf office building, is now 100% vacant, however, as recently as 2013, it was fully occupied. In addition to the office space at that address, the adjacent annex (on Preble Street) accommodates approximately 50,000 sf of retail space and the adjacent 481 Congress Street is occupied by a 2,600 square foot bank. The 477 Congress Street site was connected via interior hallway to the existing parking garage at 45 Brown Street.

In the future, the 477 Congress Street site will be redeveloped into a 190 key hotel with approximately 4,700 sf of retail space on the first floor. The existing bank space is anticipated to be converted into a high-end restaurant or commercial retail off the lobby of the hotel (approximately 3,500 gsf). In addition, there is anticipated to be a 5,100 sf rooftop bar.

Existing Conditions

The existing conditions in the vicinity of the proposed development as outlined above were reviewed. As indicated, the proposed redevelopment is to occur at the intersection of Congress Street and Preble Street. The parking garage anticipated to serve the site is located at the intersection of Cumberland Avenue and Brown Street (on the southeast corner of the intersection). As such, the planned points of vehicular access/egress will be via Brown Street and Cumberland Avenue.

A review of existing conditions focused on the project site and transportation network access to and from the site as depicted in **Figure 1**.

Roadway and Intersection Characteristics

The proposed redevelopment will be located on the block between Congress Street, Cumberland Avenue, Preble Street, and Brown Street. Congress Street is a minor arterial running northeast to southwest through Portland. Near the project site, Congress Street consists of a through lane in each direction in addition to on-street parking along parts of the road. Congress Street is the primary route through downtown for the public bus system, and 11 different lines stop in the nearby area on Congress Street. Pedestrian facilities are readily available, and bicycle facilities are planned.

Preble Street ends at the intersection of Congress Street at a three-way signalized intersection. Preble Street is a minor arterial which serves one-way southbound traffic with two lanes at the intersections with

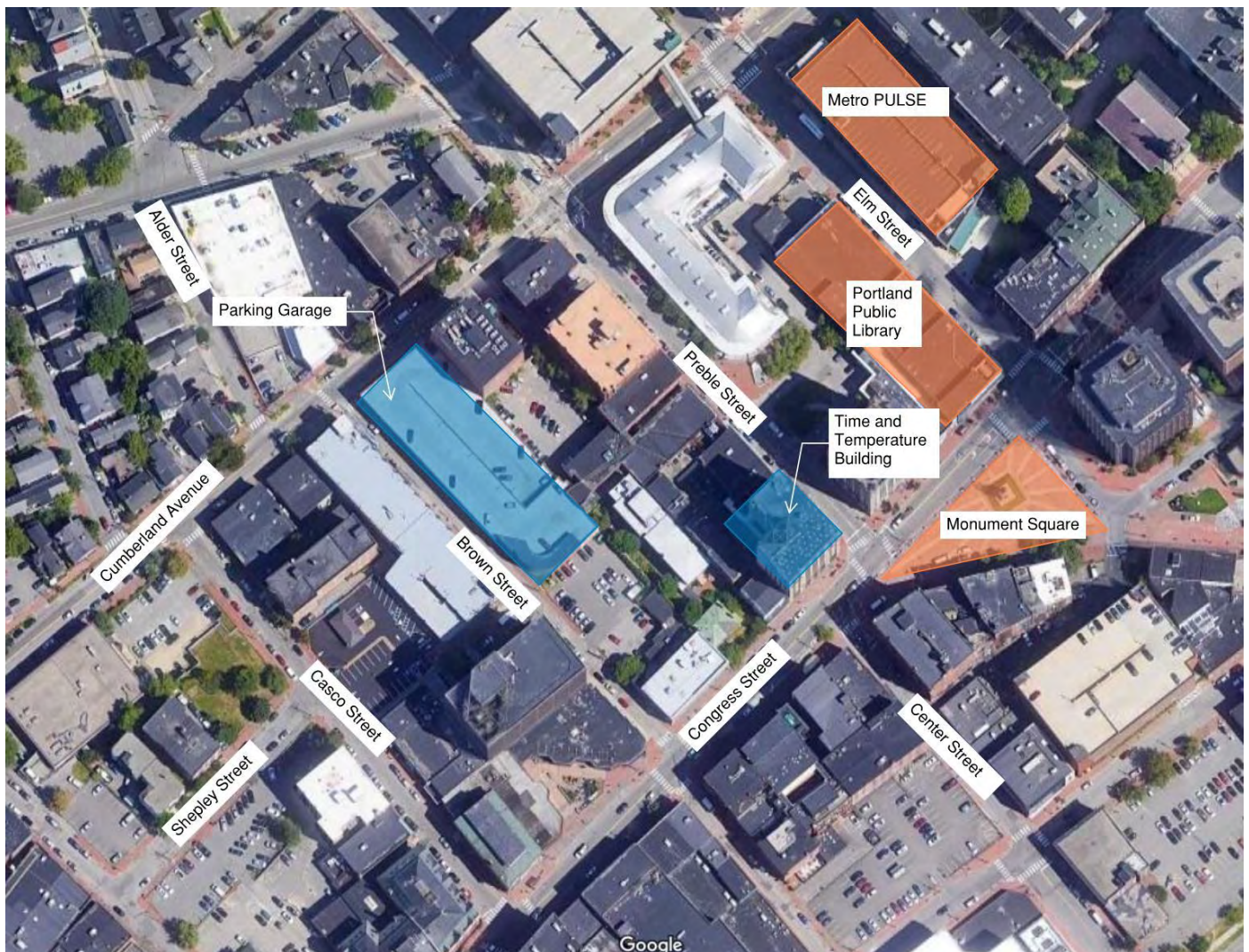
500 Southborough Drive

Suite 105B

South Portland, Maine 04106

Cumberland Avenue and Congress Street to accommodate turning vehicles. The roadway has many on-street parking spaces to serve surrounding businesses. The proposed development will be on the northwest corner of Preble Street and Congress Street.

Figure 1: Study Area and Nearby Landmarks



Cumberland Avenue is a major collector which extends northeast to southwest. It intersects with Brown Street at an unsignalized intersection and with Preble Street at a signalized intersection. Cumberland Avenue consists of a single travel lane in each direction and parking along the north side of the roadway. The main access and egress to/from the parking garage is located on the south side of Cumberland Avenue.

Brown Street runs parallel to Preble Street, and intersects with both Congress Street and Cumberland Avenue at unsignalized intersections. Between these intersections, Brown Street consists of a single travel lane that is one-way towards the northwest with parking provided on the left side of the street. There is currently an exit only from the parking garage located on the east side of Brown Street with the main access/egress to the garage located on the south side of Cumberland Avenue.

Pedestrian and Bicycle Facilities

The Congress Street site has an extended brick sidewalk of 20 feet to the front of the building, and brick and concrete sidewalks along Preble Street. The rest of the streets in the area have brick or concrete sidewalks. Crosswalks are available for pedestrians at each of the four intersections.

There are no bicycle facilities on any of the surrounding streets. The bicycle and pedestrian plan for the city shows an on-road bicycle facility is planned (as of 2014) on Preble Street and Congress Street.

Public Transportation

Portland has a vast public transportation network which is made up of buses, as depicted in **Figure 2**. The public transportation hub for downtown Portland is the METRO Pulse located at the intersection of Cumberland Avenue and Elm Street, which is a block from the site. There are several other stops in the surrounding area which service 14 different bus lines, and the closest include:

- o Preble & Cumberland: buses 7, 8 & Husky
- o Center & Cumberland: buses 1, 2, 4, 5, 8, 9B, 21, 24A, 24B & BRZ
- o Library: 1, 8, 9A, BRZ

Figure 2: Greater Portland METRO Map



Traffic Crash Analysis

Three of the four streets in the site location are current high crash locations (HCLs). The number of crashes and critical rate factor is depicted in **Figure 3** for each street labelled as an HCL. A pin was placed where the Time and Temperature Building is located. Each of the streets has seen 8-10 crashes in the past three years, which lead to them being deemed high crash locations. None of the surrounding intersections are considered HCLs. The majority of crashes were property damage only, and in most situations the accidents were with parked cars. Historically, Brown Street has not been an HCL, and this continues to be true today.

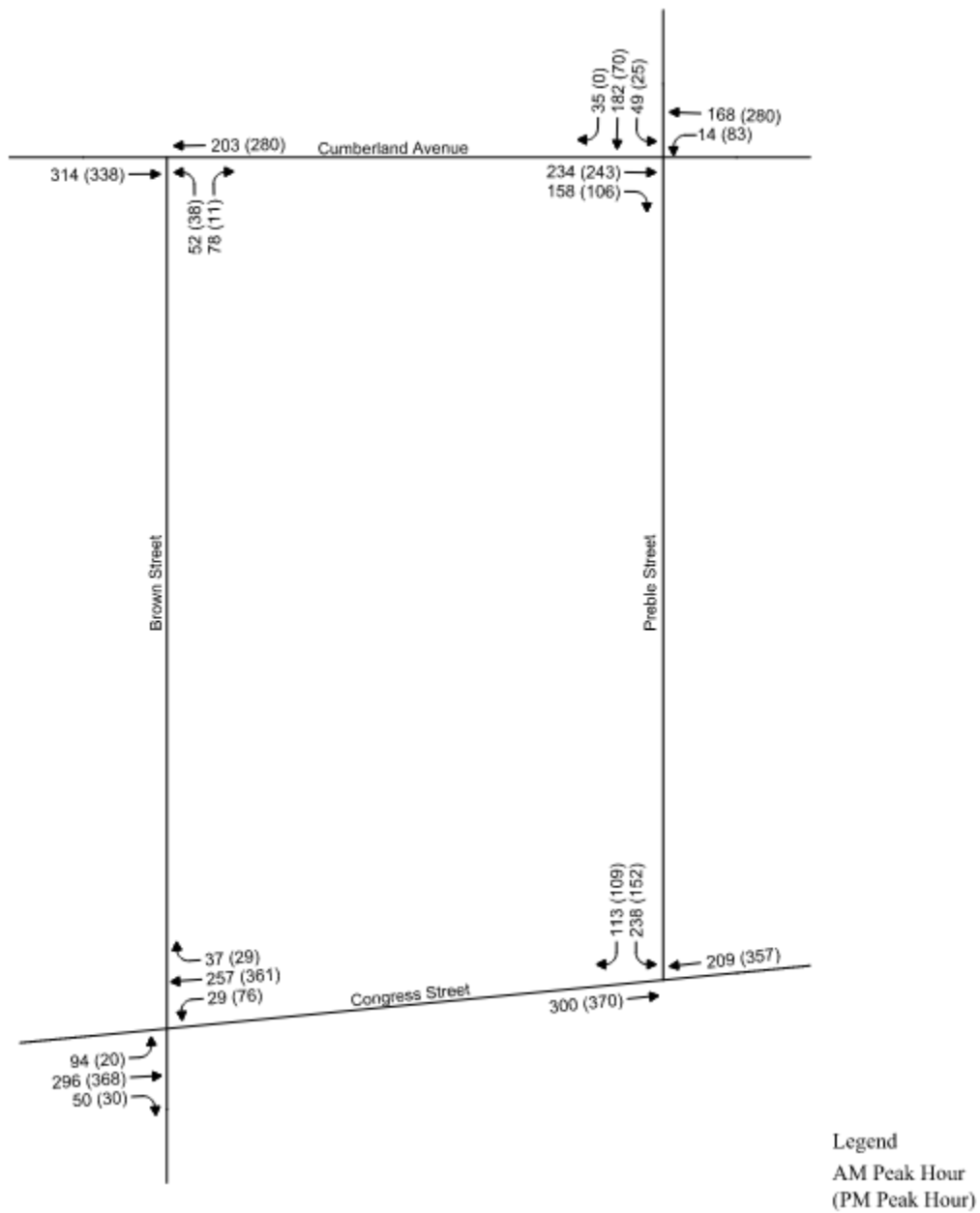
Figure 3: Map of HCLs



Traffic Volume Data

Due to the COVID-19 stay at home orders and phased reopening, current traffic conditions are not representative of normal conditions. In order to represent normal (pre-COVID-19) traffic conditions, weekday morning and evening peak hour (7:30 AM to 8:30 AM and 4:30 PM to 5:30 PM) traffic probe data was reviewed for July and October of 2019. According to seasonal adjustment data, July traffic volumes represent the peak month of the year. The 2019 July (peak month) probe data was compared with 2018 traffic count data provided by the City of Portland Department of Public Works (DPW). The 2019 July probe data was shown to be comparable, and in many cases slightly higher, than the 2018 traffic data. In order to remain conservative (using higher traffic volumes) in the assessment of existing traffic conditions, the July 2019 probe data (highest month of the year and pre-COVID) traffic volumes were used to represent 2021 existing traffic conditions. The existing weekday morning and weekday evening peak hour traffic volume networks are summarized in **Figure 4**.

Figure 4: 2021 Existing Traffic Volumes



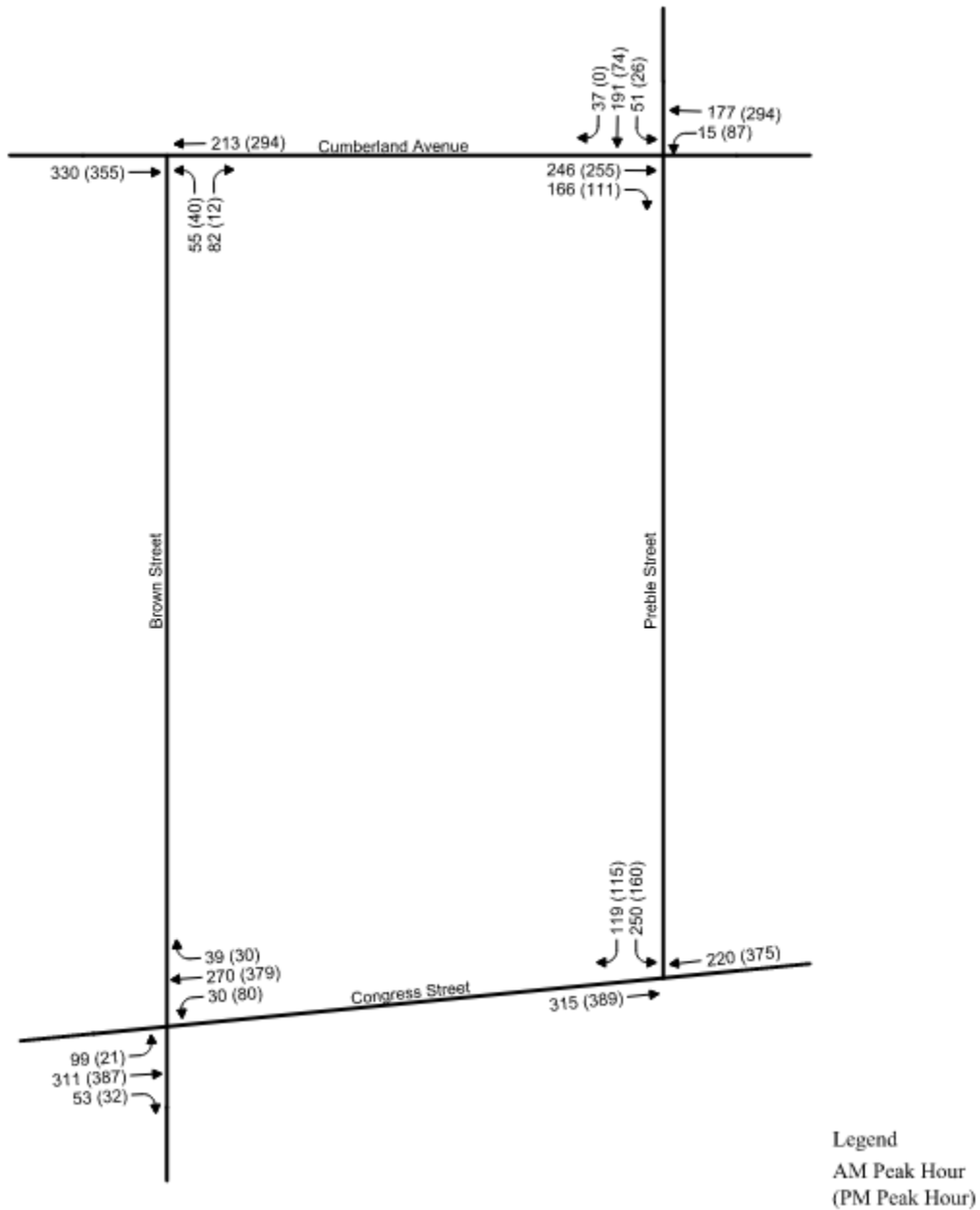
Future Conditions

Typically, transportation conditions in the study area can be expected to change in the future due to potential development/growth and planned transportation infrastructure improvements in the area. A five-year planning horizon was used to assess the study area intersections with the planned development. The traffic volumes were projected to the year 2026 to reflect growth without ("No-Build") and with ("Build") the development project and analyzed. The 2026 No-Build projected traffic volumes include growth in traffic volumes associated with generalized regional growth. The anticipated site-generated traffic volumes superimposed upon the 2026 No-Build peak hour traffic volume network reflect the 2026 Build peak hour conditions.

No Build Traffic Volumes

As stated under the Existing Conditions Traffic Volume data section above, current traffic conditions are not representative of normal (pre-COVID) conditions. This is because trips to work, shop, and for tourism are currently down and these traffic volumes are not likely to return to pre-COVID levels for some time. Despite this fact, the 2021 Existing traffic volume networks in **Figure 4** were increased by a growth rate of one (1) percent per year for five years (5.1% total growth) through 2026. The study area is already densely populated under existing conditions with limited area left to develop further; therefore, this annual growth will more than include any minor developments that may occur in the next five years. The 2026 No-Build traffic volumes for the weekday morning and evening peak hours are shown in **Figure 5**.

Figure 5: 2026 No-Build Traffic Volumes



Trip Generation

VHB has evaluated the trip generation of the redevelopment of the 477 Congress Street site. VHB calculated the peak hour trip generation of the site when it was fully occupied using the Institute of Transportation Engineers' (ITE) trip generation rates. ITE rates typically do not include adjustment to represent the urban, downtown nature of this specific site. For example, it is quite likely that a high percentage of retail trips in this neighborhood are made via foot by people who are already working, shopping, or visiting the area. In the future, it is likely that a high percentage of hotel trips will be made on foot to area employers, retail, and tourist destinations.

Current/Recent Site Trip Generation

As indicated above, the office and retail space on the site was recently occupied. The trip generation of the office space was calculated using Land Use Code (LUC) 710, Office (Dense Multi-Use Urban). The trip generation of the retail space was based on LUC 820, Shopping Center. The trip generation for the bank space on LUC 911, Walk In Bank, which only had data for the PM peak hour. The resulting trip generation associated with the current or recent land uses is provided in Table 1.

Table 1. Trip Generation – Current or Recent Uses

		Office Building ¹	Retail Annex ²	Bank ³	Total Trips
Weekday AM peak	Enter	95	29	-	124
	Exit	16	18	-	34
	Total	111	47	-	158
Weekday PM peak	Enter	19	92	14	125
	Exit	92	99	18	209
	Total	111	191	32	334

¹123,000 square feet of LUC 710 (Dense Multi-Use Urban)

²50,000 square feet of LUC 820

³2,600 square feet of LUC 911

As shown in Table 1, the site generated the most trips during the weekday PM peak hour when 334 trips entered/exited the site. During the weekday AM peak hour, 158 trips entered/exited the site.

Proposed Site Trip Generation

As indicated above, the redevelopment will include a conversion from office to hotel, and a conversion of some retail to restaurant, and a reduction of overall retail space. As shown on the site plan submitted with

the planning board application, the proposed development will consist of an approximately 190 room hotel at 477 Congress Street.

The proposed restaurant space was divided into the space that would primarily serve the visitors of the hotel and the space that would likely serve outside guests. The square footage of the restaurant on the first floor was included as square footage that would likely generate trips outside of the hotel. Although it is likely that the restaurant space will be a higher end restaurant, in order to present a worst-case scenario, the trip generation of the restaurant space was based on LUC 932, High Turnover Restaurant. Of the existing retail space at the site, only approximately 4,700 square feet will be maintained.

VHB has calculated the trip generation of these proposed uses. The hotel trip generation was calculated based on LUC 310, Hotel. Although the restaurant is anticipated to be high end, the trips were calculated using the rates for LUC 932, High Turnover (Sit-Down) Restaurant in the event the space is ever used as such and to be conservative (overestimating projected traffic). The retail space trip rate continued to be calculated by LUC 820, Shopping Center.

The resulting trip generation of the proposed site was determined and is presented in Table 2. As shown, the proposed site is anticipated to generate 130 and 169 trips respectively during the weekday AM and PM peak hours.

Table 2. Trip Generation – Proposed Uses

		Hotel ²	Retail ³	Restaurant ⁴	Total Trips
Weekday AM peak	Enter	53	3	19	75
	Exit	37	2	16	55
	Total	90	5	35	130
Weekday PM peak	Enter	60	9	21	90
	Exit	57	9	13	79
	Total	117	18	34	169

¹ 190 rooms of LUC 310

² 4,700 square feet of LUC 820

³ 3,500 square feet of LUC 932

Net Trip Generation

The net trip generation of the site was calculated and is illustrated in Table 3 below. The net trip generation of the redevelopment was calculated by comparing the trips recently generated by the site with those anticipated to be generated by the redeveloped site.

Table 3. Net Trip Generation

		Existing Site	Proposed Site	Net Trips
Weekday AM peak	Enter	124	75	-49
	Exit	34	55	+21
	Total	158	130	-28
Weekday PM peak	Enter	125	90	-35
	Exit	209	79	-130
	Total	334	169	-165

Based on the trips determined above, the redeveloped site will generate 28 less trips during the weekday AM peak hour and 165 less trips during the weekday PM peak hour than the current or recent land use. As shown, the redevelopment is anticipated to result in a net decrease in vehicular trips to and from the site and will not require a MaineDOT Traffic Movement Permit.

Adjusted Trip Generation

As outlined above, the proposed site is located so that a number of trips are likely to occur by walking, bicycling and transit. As a result, the site will generate even fewer vehicle trips than was calculated based on ITE trip rates. Recent census data indicates that residents in this area (bordering on Census tracts 3 and 6) significantly use alternate modes to get to their employment (backup information is provided attached to the document). Because the proposed land use is hotel, no adjustments were made to account for alternative modes even though based on the location, it is quite likely that some hotel trips will be made by alternative modes.

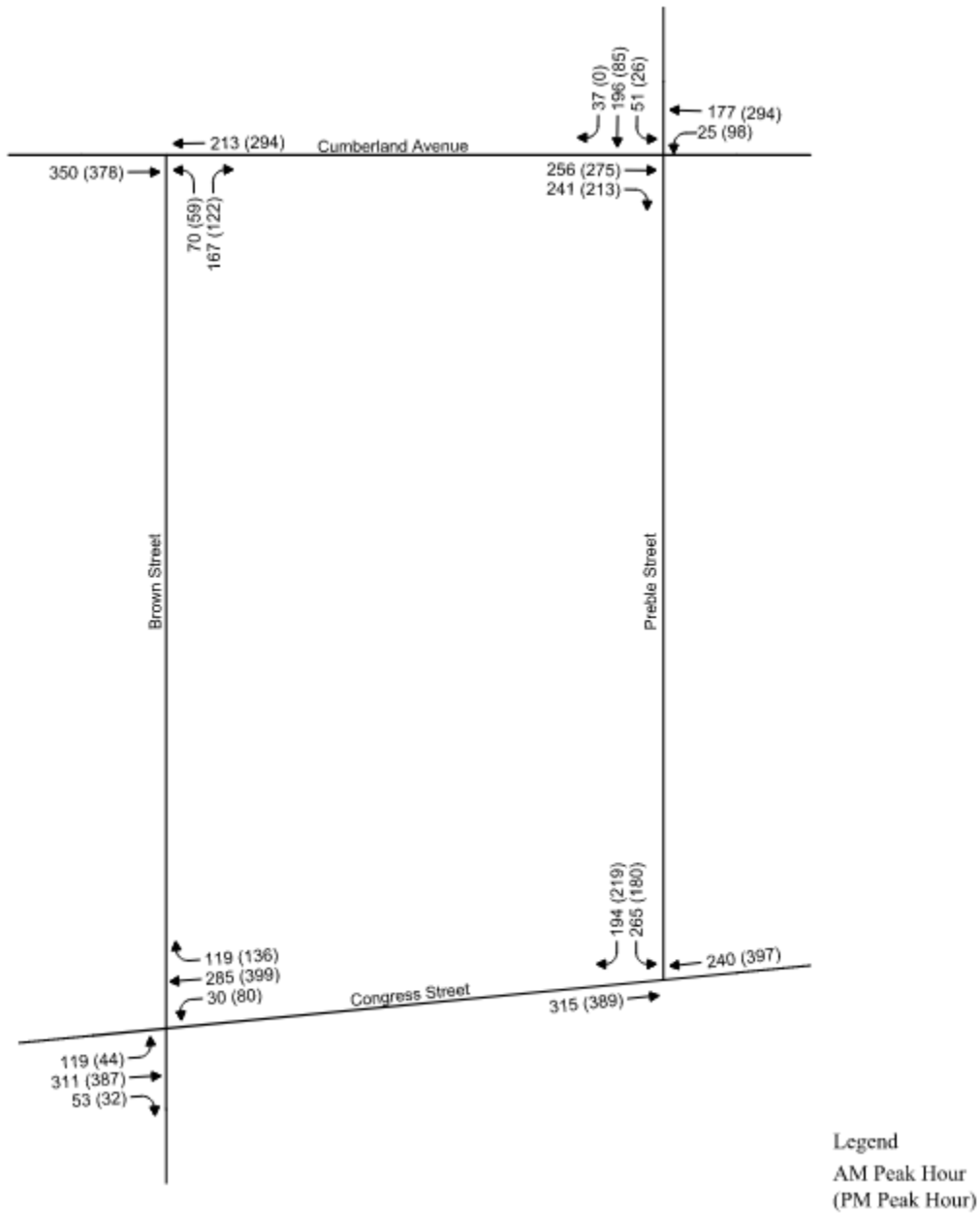
Trip Distribution and Assignment

Having estimated project generated vehicle trips, the next step in the study is to determine the trip distribution of project traffic and assign these trips to the roadway network. The trip distribution for this project was based on existing travel patterns. The projected new trips associated with the proposed mixed-use development were distributed on the study area roadways based on the following assumptions:

- o 25% from the northwest on Cumberland Avenue
- o 25% from the west on Congress Street
- o 12.5% from the north on Preble Street
- o 12.5% from the north east on Cumberland Avenue
- o 25% from the east on Congress Street

When these trips approach the site, the immediate roadway circulation will determine the travel patterns. Because Preble Street is one way southbound and Brown Street is one way northbound, trips may have to circulate around the block to get to and from the site. In addition, because many trips at the hotel will start or end with the valet operation, these trips to and from the ultimate parking location were also added to the traffic network. The 2026 Build traffic volumes for the weekday morning and evening peak hours are shown in **Figure 6**.

Figure 6: 2026 Build Traffic Volumes



Traffic Operations Analysis

The operation of the area intersections was determined for each of the Existing, No Build and Build conditions. In addition, based on a concern raised by the City, the proposed hotel valet operations was also reviewed.

Intersection Capacity Analyses

The City has also requested that the Project conduct an operational analysis of the four intersections at the corners of the block:

- Cumberland Avenue and Preble Street
- Congress Street and Preble Street
- Cumberland Avenue and Brown Street
- Congress Street and Brown Street

Intersection capacity analyses were performed for the study area intersections. Levels of service (LOS) were calculated based on the criteria published in the *2000 Highway Capacity Manual*.¹ Level of service is the term that defines the conditions that may occur on a given roadway or at an intersection when accommodating various traffic volume loads. Levels of service range from A to F with LOS A representing generally free flowing operating conditions and LOS F representing generally congested conditions. Synchro 9 was used to determine the LOS at signalized and unsignalized intersections. Copies of the LOS calculations are provided in the Appendix.

Table 4 summarizes the operational analysis at the signalized study area intersections during the weekday AM and PM peak hours under 2021 existing conditions and 2026 No Build and Build conditions. As shown, the Cumberland Avenue intersection with Preble Street is expected to operate at LOS A during the weekday AM and PM peak hours under 2021 existing conditions. The intersections are projected to operate at LOS B during the weekday AM and LOS A during the weekday PM peak hour under 2026 No Build and Build conditions. The Congress Street intersections with Preble Street is expected to operate at LOS A during the weekday AM and PM peak hours under 2021 existing conditions. The intersections are projected to operate at the same LOS A during the weekday AM and PM peak hours under 2026 No Build and Build conditions.

¹ Highway Capacity Manual, Federal Highway Administration, Transportation Research Board, 2000.

Table 4: 2026 Signalized Intersection Operations

Intersection Peak Hour	2021 Existing			2026 No Build			2026 Build		
	v/c ⁺	Delay*	LOS **	v/c ⁺	Delay*	LOS **	v/c ⁺	Delay*	LOS **
Cumberland Avenue at Preble Street									
AM Peak Hour	0.50	9.7	A	0.51	10.1	B	0.57	11.2	B
PM Peak Hour	0.48	6.8	A	0.50	6.9	A	0.52	8.4	A
Congress Street at Preble Street									
AM Peak Hour	0.56	8.4	A	0.58	8.7	A	0.55	8.2	A
PM Peak Hour	0.55	7.1	A	0.56	8.3	A	0.58	8.7	A

⁺ Volume to capacity ratio

* Delay expressed in seconds per vehicle

** Level of Service

Table 5 summarizes the operational analysis at the unsignalized study area intersections during the weekday AM and PM peak hours under 2021 existing conditions and future 2026 No Build and Build conditions. As shown, the Brown Street intersections with Cumberland Avenue is expected to operate at LOS B during the weekday AM and PM peak hours under 2021 existing conditions. The intersection is projected to operate at the same LOS B during the weekday AM and PM peak hours under 2026 No Build conditions. The intersection is projected to operate at the same LOS C during the weekday AM and PM peak hours under 2026 No Build conditions. The projected average delays are only projected to increase by 1 to 2 seconds during the AM and PM peak periods.

The Brown Street intersection with Congress Street does not have any side street approach traffic to assess the operations of the intersection. Since the north and south legs of the intersection are one-way away from the intersection, the only conflicting movements are the Congress Street left turns. These movements are projected to operate efficiently during the weekday AM and PM peak hours under 2021 existing and future 2026 No-Build and Build conditions with minimal delays.

Table 5: 2026 Unsignalized Intersection Operations

Intersection Peak Hour	Critical Movement	2021 Existing				2026 No Build				2026 Build			
		Demand	Delay*	LOS**	Q	Demand	Delay*	LOS	Q	Demand	Delay*	LOS	Q
Cumberland Avenue at Brown Street													
AM Peak Hour	NB	142	12.9	B	23	149	13.4	B	26	258	15.8	C	56
PM Peak Hour	NB	53	13.8	B	10	56	14.3	B	11	197	15.8	C	43

* Delay expressed in seconds per vehicle

** Level of Service

*** 95th percentile queue length, feet

Additional Analysis - Curb Usage and Valet Operations

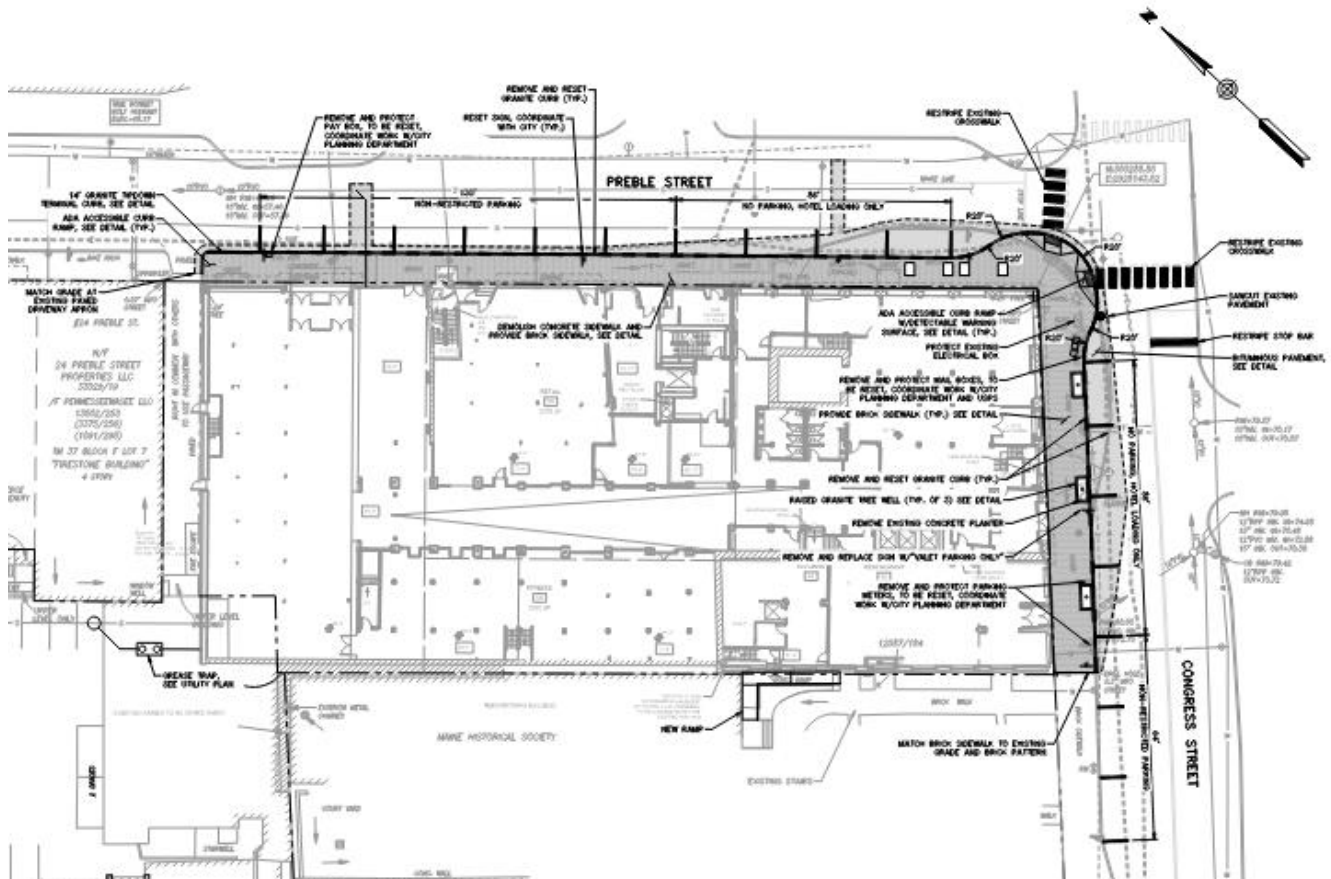
The redevelopment is anticipated to result in a net decrease in vehicular trips to and from the site and will not require a MaineDOT Traffic Movement Permit. However, the City of Portland has expressed some

concern regarding curb usage and the operations of the site. A large number of the trips to the hotel portion of the site will reach the garage via a valet operation at the front of the site. As such, the City has requested that a review and analysis of valet operation be completed and the resulting impact of the valet on the current parking supply be quantified. A successful hotel valet operation will be implemented and scaled appropriately for the proposed hotel at 477 Congress Street to ensure that a backup does not occur on either Congress Street or Preble Street and impact traffic operations on those roadways.

The location of the proposed hotel on Congress Street results in an increased focus on the frontage and the necessity to reduce any impact to the operations on Congress Street. As such, the project has investigated efficient valet operations and proposed infrastructure changes that will better accommodate the valet operation while only minimally impacting the existing on-street parking.

As shown in **Figure 7** below, the project has proposed modifications to the geometry at the corner at Congress and Preble Streets. These modifications lengthen the cut-ins available for vehicles along the curb, while also shortening the crossing distance for pedestrians walking along the Congress Street and crossing Preble Street. These modifications will provide over 50 additional linear feet of usable curb space on each street. This additional space combined with minimal conversion of spaces will result in a total of 86 linear feet of curb space (four spaces) on Congress Street and 86 feet on Preble Street (four spaces) for valet use.

Figure 7: Proposed Geometric Modifications to Congress Street and Preble Street



The City of Portland has indicated that the valet operation at the Press Hotel is one of the more efficient valet operations in the City. As such, the project team met with the management of the Press Hotel to understand that operation. In addition, the project team met with representatives at various levels of the Unified Parking Organization.

The Press Hotel has a close working relationship with Unified Parking and the valet account manager for the Press Hotel sits in department head meetings and weekly occupancy meetings with hotel staff to ensure an understanding of valet needs from day to day and at different time periods. Being located on site allows a close working relationship with the operations staff to understand the needs each week based on turnover and special events.

The distance to the garage at the Press is similar to that proposed at the Time and Temperature Building and the valet operation tracks the metrics as to retrieval time and uses those metrics to motivate the staff.

When parking the vehicles, there is always a strategic plan regarding positioning in the lot in order to prepare for departure, especially during events. Best practices include the potential for a complete reorganization of the lot while an event is occurring in order to best prepare for departure.

As far as curbside operation is concerned, Press has valet space for 5 to 6 vehicles. Based on the higher room count at 477 Congress Street, eight valet spaces are proposed (four spaces on Congress Street and 4 spaces on Preble Street four spaces). During peak events, it is anticipated that both spaces will be used as necessary (all for arriving vehicles or all for departing vehicles), however, during typical operations, it is likely that the Preble Street curb space will be used when valet brings a car out for a departing guest until room is available along Congress Street. All efforts will be towards keeping the Congress Street clear for arriving guests so that roadway operations on Congress Street are not impacted.

The operation at the Press involves a minimum of two people working valet at all times but is staffed at higher levels for peak time, peak days, and special events. In the event that there is a special event with a severe peak time, there is a labor force of other valets within walking distance of each other that can provide that short-term assistance.

When discussing locations that encounter more valet issues than experienced at the Press, the valet operators indicate that some locations have significantly more rooms, which leads to higher turnover demand, and are only provided a similar curb allocation to what is provided at the Press, and less than proposed at 477 Congress Street. At more challenging locations, the valet staff pay meters to provide that extra curb space at peak times. Similar to the Press location, the 477 Congress location offers metered spaces nearby which can provide additional short-term storage.

Conclusions

As anticipated, the redevelopment of the 477 Congress Street site will result in a reduction in net trip generation (28 and 165 less vehicles during the AM and PM peak hours, respectively) and as such will not require a MaineDOT traffic access permit. However, in order to address concerns raised by the City of Portland, a detailed traffic analysis has been conducted including a review of traffic operations at area intersections and a review of the proposed valet operation. As shown, the study area intersections are projected to operate comparable to 2026 No-Build conditions with a projected increase in average delays of one to two seconds during the weekday AM and PM peak hours.

The project team met with the management of the Press Hotel to understand that operation, as it was noted by the City of Portland as one of the more efficient valet operations in the City. The proposed development includes providing 86 linear feet of curb space (four spaces) on Congress Street and 86 feet on Preble Street (four spaces) based on the input received. The valet operations will be modeled after the Press Hotel model with the main focus on not impacting traffic flow along Congress Street.

The proposed redevelopment is projected to have minimal impacts to traffic operations based on the fact that it will generate less traffic during the AM and PM peak hours than the recent uses and the proposed modifications will provide additional parking on Congress Street and Preble Street to adequately accommodate valet operations.



Memorandum

Technical Appendix

Trip Generation Figure

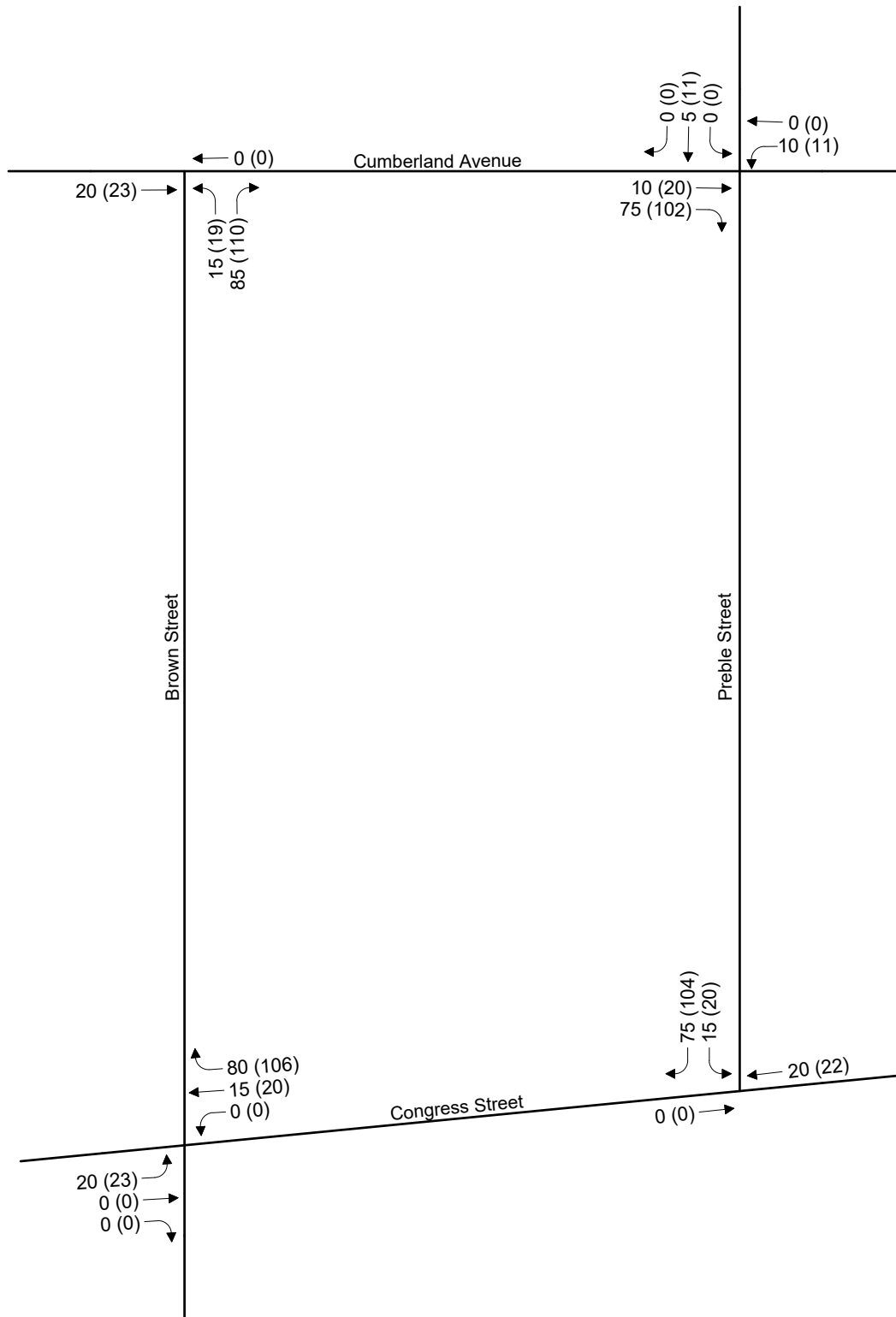
Synchro Intersection Capacity Analysis



Memorandum

Appendix A

Trip Generation Figure



Legend
AM Peak Hour
(PM Peak Hour)



Not to Scale



Appendix
Site Generate Trips
Weekday Peak Hour Traffic Volumes



Memorandum

Appendix B

Synchro Intersection Capacity Analysis

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	296	50	29	257	37	0	0	0	0	0	0
Future Volume (Veh/h)	94	296	50	29	257	37	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	102	322	54	32	279	40	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.95						0.95	0.95		0.95	0.95	0.95
vC, conflicting volume	319			376			916	936	349	916	943	299
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	251			376			883	904	349	883	911	230
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			97			100	100	100	100	100	100
cM capacity (veh/h)	1243			1182			232	234	694	232	232	765
Direction, Lane #	EB 1	WB 1										
Volume Total	478	351										
Volume Left	102	32										
Volume Right	54	40										
cSH	1243	1182										
Volume to Capacity	0.08	0.03										
Queue Length 95th (ft)	7	2										
Control Delay (s)	2.4	1.0										
Lane LOS	A	A										
Approach Delay (s)	2.4	1.0										
Approach LOS												
Intersection Summary												
Average Delay		1.8										
Intersection Capacity Utilization		47.7%			ICU Level of Service				A			
Analysis Period (min)		15										

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (veh/h)	314	0	0	203	52	78
Future Volume (Veh/h)	314	0	0	203	52	78
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	341	0	0	221	57	85
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked						
vC, conflicting volume			341		562	341
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			341		562	341
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		88	88
cM capacity (veh/h)			1218		488	701
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	341	221	142			
Volume Left	0	0	57			
Volume Right	0	0	85			
cSH	1700	1700	597			
Volume to Capacity	0.20	0.13	0.24			
Queue Length 95th (ft)	0	0	23			
Control Delay (s)	0.0	0.0	12.9			
Lane LOS			B			
Approach Delay (s)	0.0	0.0	12.9			
Approach LOS			B			
Intersection Summary						
Average Delay			2.6			
Intersection Capacity Utilization			30.9%	ICU Level of Service	A	
Analysis Period (min)			15			

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations		↰			↰			↰		↰	↰		
Traffic Volume (vph)	0	300	0	0	209	0	0	0	0	238	2	113	
Future Volume (vph)	0	300	0	0	209	0	0	0	0	238	2	113	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		72			151			106			198		
Travel Time (s)		1.6			3.4			2.4			4.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	326	0	0	227	0	0	0	0	259	125	0	
Turn Type		NA			NA					Perm	NA		
Protected Phases		6			2			8			4		9
Permitted Phases				2			8			4			
Detector Phase		6		2	2		8	8		4	4		
Switch Phase													
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5		21.0
Total Split (s)		23.0		23.0	23.0		21.0	21.0		21.0	21.0		21.0
Total Split (%)		35.4%		35.4%	35.4%		32.3%	32.3%		32.3%	32.3%		32%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5		3.0
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0		
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5		
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		None		None	None		None	None		None	None		None
v/c Ratio		0.51			0.35					0.49	0.19		
Control Delay		12.4			10.5					12.2	3.1		
Queue Delay		0.0			0.0					0.0	0.0		
Total Delay		12.4			10.5					12.2	3.1		
Queue Length 50th (ft)		42			28					32	0		
Queue Length 95th (ft)		103			71					92	22		
Internal Link Dist (ft)		1			71			26			118		
Turn Bay Length (ft)													
Base Capacity (vph)		1076			1076					727	877		
Starvation Cap Reductn		0			0					0	0		
Spillback Cap Reductn		0			0					0	0		
Storage Cap Reductn		0			0					0	0		
Reduced v/c Ratio		0.30			0.21					0.36	0.14		
Intersection Summary													
Area Type:	Other												
Cycle Length:	65												
Actuated Cycle Length:	33.3												
Natural Cycle:	60												
Control Type:	Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St

↰ Ø2	↰ Ø4	↰ Ø9
23 s	21 s	21 s
→ Ø6	↰ Ø8	
23 s	21 s	

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	300	0	0	209	0	0	0	0	238	2	113
Future Volume (vph)	0	300	0	0	209	0	0	0	0	238	2	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1588	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1588	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	326	0	0	227	0	0	0	0	259	2	123
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	76	0
Lane Group Flow (vph)	0	326	0	0	227	0	0	0	0	259	49	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		11.5			11.5					12.5	12.5	
Effective Green, g (s)		11.5			11.5					12.5	12.5	
Actuated g/C Ratio		0.35			0.35					0.38	0.38	
Clearance Time (s)		4.5			4.5					4.5	4.5	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Lane Grp Cap (vph)		649			649					534	601	
v/s Ratio Prot		c0.18			0.12						0.03	
v/s Ratio Perm										c0.18		
v/c Ratio		0.50			0.35					0.49	0.08	
Uniform Delay, d1		8.5			8.0					7.8	6.6	
Progression Factor		1.00			1.00					1.00	1.00	
Incremental Delay, d2		0.6			0.3					0.7	0.1	
Delay (s)		9.1			8.3					8.5	6.6	
Level of Service		A			A					A	A	
Approach Delay (s)		9.1			8.3			0.0			7.9	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.4			HCM 2000 Level of Service					A	
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			33.0			Sum of lost time (s)					12.0	
Intersection Capacity Utilization			36.5%			ICU Level of Service					A	
Analysis Period (min)			15									

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰			↱		↱	↱	
Traffic Volume (vph)	0	234	158	14	168	0	0	0	0	49	182	35
Future Volume (vph)	0	234	158	14	168	0	0	0	0	49	182	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	426	0	15	183	0	0	0	0	0	289	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		30.0		12.0	42.0					23.0	23.0	
Total Split (%)		46.2%		18.5%	64.6%					35.4%	35.4%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.56		0.03	0.22						0.32	
Control Delay		10.6		4.7	5.9						12.0	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		10.6		4.7	5.9						12.0	
Queue Length 50th (ft)		35		1	15						14	
Queue Length 95th (ft)		159		7	42						69	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1466		552	1738						2079	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.29		0.03	0.11						0.14	

Intersection Summary

Area Type: Other

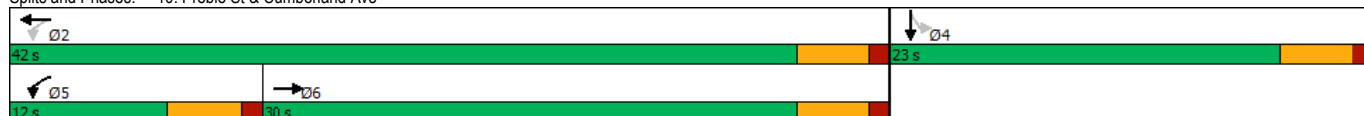
Cycle Length: 65

Actuated Cycle Length: 33.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	234	158	14	168	0	0	0	0	49	182	35
Future Volume (vph)	0	234	158	14	168	0	0	0	0	49	182	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.95		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1761		1770	1863						3438	
Flt Permitted		1.00		0.31	1.00						0.99	
Satd. Flow (perm)		1761		584	1863						3438	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	254	172	15	183	0	0	0	0	53	198	38
RTOR Reduction (vph)	0	39	0	0	0	0	0	0	0	0	20	0
Lane Group Flow (vph)	0	387	0	15	183	0	0	0	0	0	269	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		13.7		19.0	19.0						8.6	
Effective Green, g (s)		13.7		19.0	19.0						8.6	
Actuated g/C Ratio		0.37		0.52	0.52						0.23	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		659		329	967						807	
v/s Ratio Prot		c0.22		0.00	c0.10							
v/s Ratio Perm				0.02							0.08	
v/c Ratio		0.59		0.05	0.19						0.33	
Uniform Delay, d1		9.2		5.0	4.7						11.6	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		1.3		0.1	0.1						0.2	
Delay (s)		10.5		5.0	4.8						11.9	
Level of Service		B		A	A						B	
Approach Delay (s)		10.5			4.8			0.0			11.9	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			9.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			36.6		Sum of lost time (s)					13.5		
Intersection Capacity Utilization			37.0%		ICU Level of Service					A		
Analysis Period (min)			15									

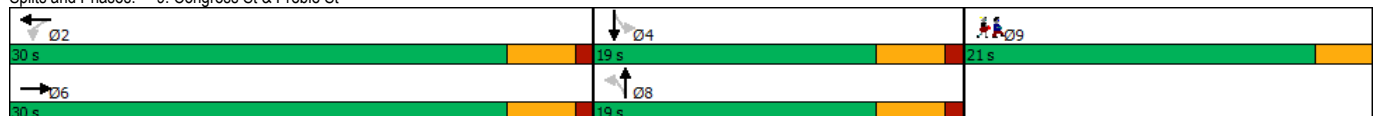
c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	368	30	76	361	29	0	0	0	0	0	0
Future Volume (Veh/h)	20	368	30	76	361	29	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	400	33	83	392	32	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.87						0.87	0.87		0.87	0.87	0.87
vC, conflicting volume	424			433			1034	1050	416	1034	1051	408
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	262			433			964	983	416	964	983	243
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			93			100	100	100	100	100	100
cM capacity (veh/h)	1132			1127			190	196	636	190	196	691
Direction, Lane #	EB 1	WB 1										
Volume Total	455	507										
Volume Left	22	83										
Volume Right	33	32										
cSH	1132	1127										
Volume to Capacity	0.02	0.07										
Queue Length 95th (ft)	1	6										
Control Delay (s)	0.6	2.1										
Lane LOS	A	A										
Approach Delay (s)	0.6	2.1										
Approach LOS												
Intersection Summary												
Average Delay		1.4										
Intersection Capacity Utilization		53.5%			ICU Level of Service				A			
Analysis Period (min)		15										

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (veh/h)	338	0	0	280	38	11
Future Volume (Veh/h)	338	0	0	280	38	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	367	0	0	304	41	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked					0.98	
vC, conflicting volume			367		671	367
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			367		654	367
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		90	98
cM capacity (veh/h)			1192		423	678
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	367	304	53			
Volume Left	0	0	41			
Volume Right	0	0	12			
cSH	1700	1700	462			
Volume to Capacity	0.22	0.18	0.11			
Queue Length 95th (ft)	0	0	10			
Control Delay (s)	0.0	0.0	13.8			
Lane LOS			B			
Approach Delay (s)	0.0	0.0	13.8			
Approach LOS			B			
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			27.8%	ICU Level of Service	A	
Analysis Period (min)			15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	370	0	0	357	0	0	0	0	152	0	109	
Future Volume (vph)	0	370	0	0	357	0	0	0	0	152	0	109	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		72			151			106			198		
Travel Time (s)		1.6			3.4			2.4			4.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	402	0	0	388	0	0	0	0	165	118	0	
Turn Type		NA			NA					Perm	NA		
Protected Phases		6			2			8			4		9
Permitted Phases				2			8			4			
Detector Phase		6		2	2		8	8		4	4		
Switch Phase													
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5		21.0
Total Split (s)		30.0		30.0	30.0		19.0	19.0		19.0	19.0		21.0
Total Split (%)		42.9%		42.9%	42.9%		27.1%	27.1%		27.1%	27.1%		30%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5		3.0
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0		
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5		
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		None		None	None		None	None		None	None		None
v/c Ratio		0.41			0.39					0.33	0.12		
Control Delay		8.8			8.7					11.6	0.3		
Queue Delay		0.0			0.0					0.0	0.0		
Total Delay		8.8			8.7					11.6	0.3		
Queue Length 50th (ft)		44			42					20	0		
Queue Length 95th (ft)		118			113					63	0		
Internal Link Dist (ft)		1			71			26			118		
Turn Bay Length (ft)													
Base Capacity (vph)		1525			1525					778	1147		
Starvation Cap Reductn		0			0					0	0		
Spillback Cap Reductn		0			0					0	0		
Storage Cap Reductn		0			0					0	0		
Reduced v/c Ratio		0.26			0.25					0.21	0.10		
Intersection Summary													
Area Type:	Other												
Cycle Length:	70												
Actuated Cycle Length:	29.6												
Natural Cycle:	60												
Control Type:	Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	370	0	0	357	0	0	0	0	152	0	109
Future Volume (vph)	0	370	0	0	357	0	0	0	0	152	0	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1583	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	402	0	0	388	0	0	0	0	165	0	118
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	89	0
Lane Group Flow (vph)	0	402	0	0	388	0	0	0	0	165	30	0
Turn Type	NA				NA				Perm			
Protected Phases	6				2				8			
Permitted Phases					2				8			
Actuated Green, G (s)	13.5				13.5				7.5			
Effective Green, g (s)	13.5				13.5				7.5			
Actuated g/C Ratio	0.45				0.45				0.25			
Clearance Time (s)	4.5				4.5				4.5			
Vehicle Extension (s)	3.0				3.0				3.0			
Lane Grp Cap (vph)	838				838				352			
v/s Ratio Prot	c0.22				0.21				0.02			
v/s Ratio Perm									c0.12			
v/c Ratio	0.48				0.46				0.47			
Uniform Delay, d1	5.8				5.7				9.6			
Progression Factor	1.00				1.00				1.00			
Incremental Delay, d2	0.4				0.4				1.0			
Delay (s)	6.2				6.1				10.5			
Level of Service	A				A				B			
Approach Delay (s)	6.2				6.1				0.0			
Approach LOS	A				A				A			
Intersection Summary												
HCM 2000 Control Delay	7.1				HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio	0.55											
Actuated Cycle Length (s)	30.0				Sum of lost time (s)				12.0			
Intersection Capacity Utilization	35.4%				ICU Level of Service				A			
Analysis Period (min)	15											
c Critical Lane Group												

c Critical Lane Group

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations		↔		↔	↔					↔	↔	
Traffic Volume (vph)	0	243	106	83	280	0	0	0	0	25	70	0
Future Volume (vph)	0	243	106	83	280	0	0	0	0	25	70	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	379	0	90	304	0	0	0	0	0	103	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		35.0		12.0	47.0					23.0	23.0	
Total Split (%)		50.0%		17.1%	67.1%					32.9%	32.9%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		4.5		4.5	4.5					4.5	4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.39		0.10	0.21						0.10	
Control Delay		9.9		3.3	3.4						15.3	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		9.9		3.3	3.4						15.3	
Queue Length 50th (ft)		62		6	24						10	
Queue Length 95th (ft)		130		18	53						30	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1466		831	1805						2281	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.26		0.11	0.17						0.05	

Intersection Summary

Area Type: Other

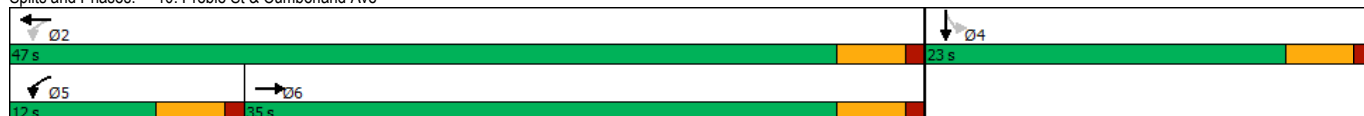
Cycle Length: 70

Actuated Cycle Length: 31.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	243	106	83	280	0	0	0	0	25	70	0
Future Volume (vph)	0	243	106	83	280	0	0	0	0	25	70	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.96		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1786		1770	1863						3493	
Flt Permitted		1.00		0.36	1.00						0.99	
Satd. Flow (perm)		1786		662	1863						3493	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	264	115	90	304	0	0	0	0	27	76	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	353	0	90	304	0	0	0	0	0	103	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		11.2		18.9	18.9						3.2	
Effective Green, g (s)		11.2		18.9	18.9						3.2	
Actuated g/C Ratio		0.36		0.61	0.61						0.10	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		643		516	1132						359	
v/s Ratio Prot		c0.20		0.02	c0.16							
v/s Ratio Perm				0.09							0.03	
v/c Ratio		0.55		0.17	0.27						0.29	
Uniform Delay, d1		7.9		3.0	2.9						12.9	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		1.0		0.2	0.1						0.4	
Delay (s)		8.9		3.2	3.0						13.3	
Level of Service		A		A	A						B	
Approach Delay (s)		8.9			3.0			0.0			13.3	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			6.8		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			31.1		Sum of lost time (s)					13.5		
Intersection Capacity Utilization			40.1%		ICU Level of Service					A		
Analysis Period (min)			15									

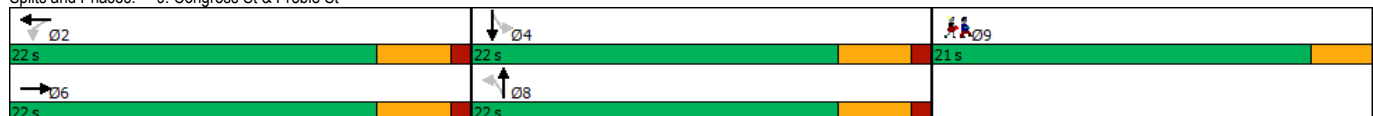
c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	311	53	30	270	39	0	0	0	0	0	0
Future Volume (Veh/h)	99	311	53	30	270	39	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	338	58	33	293	42	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.94						0.94	0.94		0.94	0.94	0.94
vC, conflicting volume	335			396			963	984	367	963	992	314
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	256			396			927	949	367	927	958	233
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			97			100	100	100	100	100	100
cM capacity (veh/h)	1226			1163			213	216	678	213	214	754
Direction, Lane #	EB 1	WB 1										
Volume Total	504	368										
Volume Left	108	33										
Volume Right	58	42										
cSH	1226	1163										
Volume to Capacity	0.09	0.03										
Queue Length 95th (ft)	7	2										
Control Delay (s)	2.5	1.0										
Lane LOS	A	A										
Approach Delay (s)	2.5	1.0										
Approach LOS												
Intersection Summary												
Average Delay		1.9										
Intersection Capacity Utilization		50.0%			ICU Level of Service				A			
Analysis Period (min)		15										

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘↗	
Traffic Volume (veh/h)	330	0	0	213	55	82
Future Volume (Veh/h)	330	0	0	213	55	82
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	359	0	0	232	60	89
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked						
vC, conflicting volume			359		591	359
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			359		591	359
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		87	87
cM capacity (veh/h)			1200		470	685
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	359	232	149			
Volume Left	0	0	60			
Volume Right	0	0	89			
cSH	1700	1700	578			
Volume to Capacity	0.21	0.14	0.26			
Queue Length 95th (ft)	0	0	26			
Control Delay (s)	0.0	0.0	13.4			
Lane LOS			B			
Approach Delay (s)	0.0	0.0	13.4			
Approach LOS			B			
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization			32.1%	ICU Level of Service	A	
Analysis Period (min)			15			

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations		↔			↔			↔		↔	↔		
Traffic Volume (vph)	0	315	0	0	220	0	0	0	0	250	2	119	
Future Volume (vph)	0	315	0	0	220	0	0	0	0	250	2	119	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		72			151			106			198		
Travel Time (s)		1.6			3.4			2.4			4.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	342	0	0	239	0	0	0	0	272	131	0	
Turn Type		NA			NA					Perm	NA		
Protected Phases		6			2			8			4		9
Permitted Phases				2			8			4			
Detector Phase		6		2	2		8	8		4	4		
Switch Phase													
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5		21.0
Total Split (s)		22.0		22.0	22.0		22.0	22.0		22.0	22.0		21.0
Total Split (%)		33.8%		33.8%	33.8%		33.8%	33.8%		33.8%	33.8%		32%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5		3.0
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0		
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5		
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		None		None	None		None	None		None	None		None
v/c Ratio		0.52			0.36					0.52	0.19		
Control Delay		12.6			10.7					12.9	3.1		
Queue Delay		0.0			0.0					0.0	0.0		
Total Delay		12.6			10.7					12.9	3.1		
Queue Length 50th (ft)		47			30					36	0		
Queue Length 95th (ft)		113			78					99	22		
Internal Link Dist (ft)		1			71			26			118		
Turn Bay Length (ft)													
Base Capacity (vph)		987			987					747	901		
Starvation Cap Reductn		0			0					0	0		
Spillback Cap Reductn		0			0					0	0		
Storage Cap Reductn		0			0					0	0		
Reduced v/c Ratio		0.35			0.24					0.36	0.15		
Intersection Summary													
Area Type:	Other												
Cycle Length:	65												
Actuated Cycle Length:	34.4												
Natural Cycle:	60												
Control Type:	Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	315	0	0	220	0	0	0	0	250	2	119
Future Volume (vph)	0	315	0	0	220	0	0	0	0	250	2	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1588	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1588	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	342	0	0	239	0	0	0	0	272	2	129
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	80	0
Lane Group Flow (vph)	0	342	0	0	239	0	0	0	0	272	51	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		12.1			12.1					12.9	12.9	
Effective Green, g (s)		12.1			12.1					12.9	12.9	
Actuated g/C Ratio		0.36			0.36					0.38	0.38	
Clearance Time (s)		4.5			4.5					4.5	4.5	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Lane Grp Cap (vph)		663			663					534	602	
v/s Ratio Prot		c0.18			0.13						0.03	
v/s Ratio Perm										c0.19		
v/c Ratio		0.52			0.36					0.51	0.08	
Uniform Delay, d1		8.6			8.1					8.1	6.8	
Progression Factor		1.00			1.00					1.00	1.00	
Incremental Delay, d2		0.7			0.3					0.8	0.1	
Delay (s)		9.3			8.4					8.9	6.8	
Level of Service		A			A					A	A	
Approach Delay (s)		9.3			8.4			0.0			8.2	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.7			HCM 2000 Level of Service					A	
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			34.0			Sum of lost time (s)				12.0		
Intersection Capacity Utilization			37.9%			ICU Level of Service				A		
Analysis Period (min)			15									

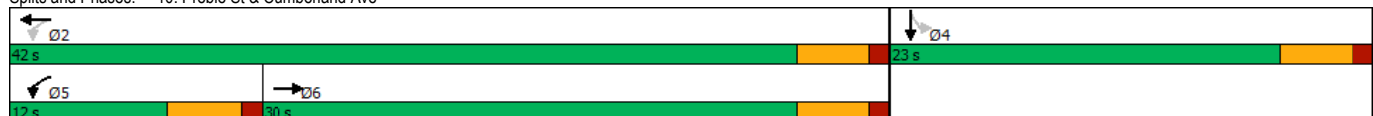
c Critical Lane Group

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations		↔		↔	↔					↔	↔	
Traffic Volume (vph)	0	246	166	15	177	0	0	0	0	51	191	37
Future Volume (vph)	0	246	166	15	177	0	0	0	0	51	191	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	447	0	16	192	0	0	0	0	0	303	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		30.0		12.0	42.0					23.0	23.0	
Total Split (%)		46.2%		18.5%	64.6%					35.4%	35.4%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.59		0.03	0.23						0.33	
Control Delay		11.2		4.9	6.1						12.4	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		11.2		4.9	6.1						12.4	
Queue Length 50th (ft)		38		1	16						16	
Queue Length 95th (ft)		176		7	47						75	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1440		541	1725						2039	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.31		0.03	0.11						0.15	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 34.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	246	166	15	177	0	0	0	0	51	191	37
Future Volume (vph)	0	246	166	15	177	0	0	0	0	51	191	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.95		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1761		1770	1863						3438	
Flt Permitted		1.00		0.30	1.00						0.99	
Satd. Flow (perm)		1761		555	1863						3438	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	267	180	16	192	0	0	0	0	55	208	40
RTOR Reduction (vph)	0	38	0	0	0	0	0	0	0	0	20	0
Lane Group Flow (vph)	0	409	0	16	192	0	0	0	0	0	283	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		14.3		19.6	19.6						9.0	
Effective Green, g (s)		14.3		19.6	19.6						9.0	
Actuated g/C Ratio		0.38		0.52	0.52						0.24	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		669		315	971						822	
v/s Ratio Prot		c0.23		0.00	c0.10							
v/s Ratio Perm				0.03							0.08	
v/c Ratio		0.61		0.05	0.20						0.34	
Uniform Delay, d1		9.4		5.1	4.8						11.9	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		1.7		0.1	0.1						0.3	
Delay (s)		11.1		5.2	4.9						12.1	
Level of Service		B		A	A						B	
Approach Delay (s)		11.1			4.9			0.0			12.1	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			10.1		HCM 2000 Level of Service						B	
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			37.6		Sum of lost time (s)						13.5	
Intersection Capacity Utilization			38.5%		ICU Level of Service						A	
Analysis Period (min)			15									

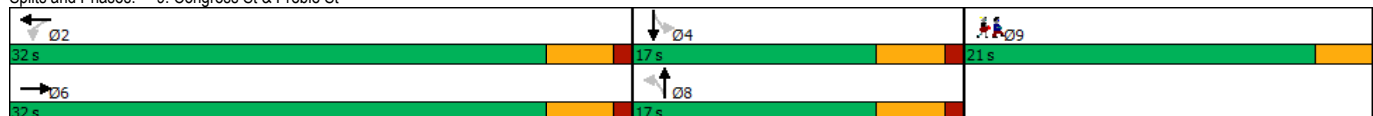
c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	387	32	80	379	30	0	0	0	0	0	0
Future Volume (Veh/h)	21	387	32	80	379	30	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	421	35	87	412	33	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	445			456			1087	1104	438	1087	1104	428
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	238			456			1006	1026	438	1006	1027	219
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			92			100	100	100	100	100	100
cM capacity (veh/h)	1111			1105			170	177	618	170	177	687
Direction, Lane #	EB 1	WB 1										
Volume Total	479	532										
Volume Left	23	87										
Volume Right	35	33										
cSH	1111	1105										
Volume to Capacity	0.02	0.08										
Queue Length 95th (ft)	2	6										
Control Delay (s)	0.6	2.2										
Lane LOS	A	A										
Approach Delay (s)	0.6	2.2										
Approach LOS												
Intersection Summary												
Average Delay		1.4										
Intersection Capacity Utilization		56.1%			ICU Level of Service				B			
Analysis Period (min)		15										

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (veh/h)	355	0	0	294	40	12
Future Volume (Veh/h)	355	0	0	294	40	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	386	0	0	320	43	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked					0.97	
vC, conflicting volume			386		706	386
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			386		682	386
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		89	98
cM capacity (veh/h)			1172		403	662
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	386	320	56			
Volume Left	0	0	43			
Volume Right	0	0	13			
cSH	1700	1700	443			
Volume to Capacity	0.23	0.19	0.13			
Queue Length 95th (ft)	0	0	11			
Control Delay (s)	0.0	0.0	14.3			
Lane LOS			B			
Approach Delay (s)	0.0	0.0	14.3			
Approach LOS			B			
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			28.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	389	0	0	375	0	0	0	0	160	0	115	
Future Volume (vph)	0	389	0	0	375	0	0	0	0	160	0	115	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		72			151			106			198		
Travel Time (s)		1.6			3.4			2.4			4.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	423	0	0	408	0	0	0	0	174	125	0	
Turn Type		NA			NA					Perm	NA		
Protected Phases		6			2			8			4		9
Permitted Phases				2			8			4			
Detector Phase		6		2	2		8	8		4	4		
Switch Phase													
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5		21.0
Total Split (s)		32.0		32.0	32.0		17.0	17.0		17.0	17.0		21.0
Total Split (%)		45.7%		45.7%	45.7%		24.3%	24.3%		24.3%	24.3%		30%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5		3.0
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0		
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5		
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		None		None	None		None	None		None	None		None
v/c Ratio		0.57			0.55					0.39	0.14		
Control Delay		11.2			10.9					12.6	0.3		
Queue Delay		0.0			0.0					0.0	0.0		
Total Delay		11.2			10.9					12.6	0.3		
Queue Length 50th (ft)		51			48					21	0		
Queue Length 95th (ft)		113			108					67	0		
Internal Link Dist (ft)		1			71			26			118		
Turn Bay Length (ft)													
Base Capacity (vph)		1591			1591					564	994		
Starvation Cap Reductn		0			0					0	0		
Spillback Cap Reductn		0			0					0	0		
Storage Cap Reductn		0			0					0	0		
Reduced v/c Ratio		0.27			0.26					0.31	0.13		
Intersection Summary													
Area Type:	Other												
Cycle Length:	70												
Actuated Cycle Length:	32.2												
Natural Cycle:	60												
Control Type:	Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	389	0	0	375	0	0	0	0	160	0	115
Future Volume (vph)	0	389	0	0	375	0	0	0	0	160	0	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1583	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	423	0	0	408	0	0	0	0	174	0	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	85	0
Lane Group Flow (vph)	0	423	0	0	408	0	0	0	0	174	40	0
Turn Type	NA				NA				Perm			
Protected Phases	6				2				8			
Permitted Phases					2				8			
Actuated Green, G (s)	12.8				12.8				10.1			
Effective Green, g (s)	12.8				12.8				10.1			
Actuated g/C Ratio	0.40				0.40				0.32			
Clearance Time (s)	4.5				4.5				4.5			
Vehicle Extension (s)	3.0				3.0				3.0			
Lane Grp Cap (vph)	747				747				446			
v/s Ratio Prot	c0.23				0.22							
v/s Ratio Perm									c0.12			
v/c Ratio	0.57				0.55				0.39			
Uniform Delay, d1	7.4				7.3				8.5			
Progression Factor	1.00				1.00				1.00			
Incremental Delay, d2	1.0				0.8				0.6			
Delay (s)	8.4				8.1				9.1			
Level of Service	A				A				A			
Approach Delay (s)	8.4				8.1				0.0			
Approach LOS	A				A				A			
Intersection Summary												
HCM 2000 Control Delay	8.3				HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio	0.56											
Actuated Cycle Length (s)	31.9				Sum of lost time (s)				12.0			
Intersection Capacity Utilization	36.8%				ICU Level of Service				A			
Analysis Period (min)	15											

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰			↱		↱	↱	
Traffic Volume (vph)	0	255	111	87	294	0	0	0	0	26	74	0
Future Volume (vph)	0	255	111	87	294	0	0	0	0	26	74	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	398	0	95	320	0	0	0	0	0	108	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		35.0		12.0	47.0					23.0	23.0	
Total Split (%)		50.0%		17.1%	67.1%					32.9%	32.9%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.40		0.11	0.22						0.10	
Control Delay		9.9		3.3	3.4						15.8	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		9.9		3.3	3.4						15.8	
Queue Length 50th (ft)		67		7	26						11	
Queue Length 95th (ft)		139		19	56						32	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1446		823	1781						2255	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.28		0.12	0.18						0.05	

Intersection Summary

Area Type: Other

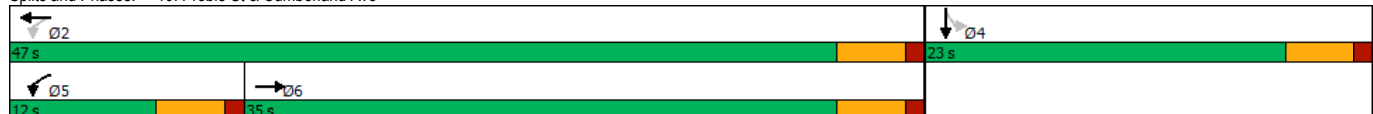
Cycle Length: 70

Actuated Cycle Length: 32.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	255	111	87	294	0	0	0	0	26	74	0
Future Volume (vph)	0	255	111	87	294	0	0	0	0	26	74	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.96		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1786		1770	1863						3494	
Flt Permitted		1.00		0.34	1.00						0.99	
Satd. Flow (perm)		1786		642	1863						3494	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	277	121	95	320	0	0	0	0	28	80	0
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	373	0	95	320	0	0	0	0	0	108	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		11.8		19.5	19.5						3.2	
Effective Green, g (s)		11.8		19.5	19.5						3.2	
Actuated g/C Ratio		0.37		0.62	0.62						0.10	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		664		508	1146						352	
v/s Ratio Prot		c0.21		0.02	c0.17							
v/s Ratio Perm				0.10							0.03	
v/c Ratio		0.56		0.19	0.28						0.31	
Uniform Delay, d1		7.9		3.0	2.8						13.2	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		1.1		0.2	0.1						0.5	
Delay (s)		9.0		3.2	3.0						13.7	
Level of Service		A		A	A						B	
Approach Delay (s)		9.0			3.0			0.0			13.7	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			6.9		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			31.7		Sum of lost time (s)					13.5		
Intersection Capacity Utilization			41.3%		ICU Level of Service					A		
Analysis Period (min)			15									

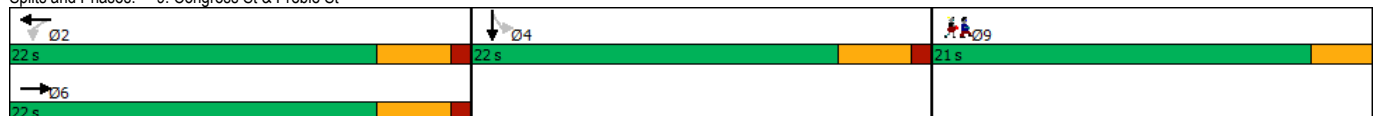
c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	311	53	30	285	119	0	0	0	0	0	0
Future Volume (Veh/h)	119	311	53	30	285	119	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	129	338	58	33	310	129	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.94						0.94	0.94		0.94	0.94	0.94
vC, conflicting volume	439			396			1066	1130	367	1066	1094	374
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	370			396			1037	1106	367	1037	1068	301
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			97			100	100	100	100	100	100
cM capacity (veh/h)	1116			1163			175	170	678	175	179	693
Direction, Lane #	EB 1	WB 1										
Volume Total	525	472										
Volume Left	129	33										
Volume Right	58	129										
cSH	1116	1163										
Volume to Capacity	0.12	0.03										
Queue Length 95th (ft)	10	2										
Control Delay (s)	3.1	0.9										
Lane LOS	A	A										
Approach Delay (s)	3.1	0.9										
Approach LOS												
Intersection Summary												
Average Delay		2.0										
Intersection Capacity Utilization		56.7%			ICU Level of Service				B			
Analysis Period (min)		15										

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘↗	
Traffic Volume (veh/h)	350	0	0	213	70	167
Future Volume (Veh/h)	350	0	0	213	70	167
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	380	0	0	232	76	182
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked					1.00	
vC, conflicting volume			380		612	380
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			380		610	380
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		83	73
cM capacity (veh/h)			1178		457	667
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	380	232	258			
Volume Left	0	0	76			
Volume Right	0	0	182			
cSH	1700	1700	587			
Volume to Capacity	0.22	0.14	0.44			
Queue Length 95th (ft)	0	0	56			
Control Delay (s)	0.0	0.0	15.8			
Lane LOS			C			
Approach Delay (s)	0.0	0.0	15.8			
Approach LOS			C			
Intersection Summary						
Average Delay			4.7			
Intersection Capacity Utilization			39.2%	ICU Level of Service	A	
Analysis Period (min)			15			

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations		↰			↰					↰	↰		
Traffic Volume (vph)	0	315	0	0	240	0	0	0	0	265	2	194	
Future Volume (vph)	0	315	0	0	240	0	0	0	0	265	2	194	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		72			151			106			198		
Travel Time (s)		1.6			3.4			2.4			4.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	342	0	0	261	0	0	0	0	288	213	0	
Turn Type		NA			NA					Perm	NA		
Protected Phases		6			2						4		9
Permitted Phases				2						4			
Detector Phase		6		2	2					4	4		
Switch Phase													
Minimum Initial (s)		6.0		6.0	6.0					6.0	6.0		5.0
Minimum Split (s)		10.5		10.5	10.5					10.5	10.5		21.0
Total Split (s)		22.0		22.0	22.0					22.0	22.0		21.0
Total Split (%)		33.8%		33.8%	33.8%					33.8%	33.8%		32%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5		3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0		0.0
Lost Time Adjust (s)		0.0			0.0					0.0	0.0		
Total Lost Time (s)		4.5			4.5					4.5	4.5		
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		None		None	None					None	None		None
v/c Ratio		0.51			0.39					0.46	0.31		
Control Delay		11.8			10.3					11.5	3.2		
Queue Delay		0.0			0.0					0.0	0.0		
Total Delay		11.8			10.3					11.5	3.2		
Queue Length 50th (ft)		44			32					36	0		
Queue Length 95th (ft)		113			85					96	28		
Internal Link Dist (ft)		1			71			26			118		
Turn Bay Length (ft)													
Base Capacity (vph)		1033			1033					982	973		
Starvation Cap Reductn		0			0					0	0		
Spillback Cap Reductn		0			0					0	0		
Storage Cap Reductn		0			0					0	0		
Reduced v/c Ratio		0.33			0.25					0.29	0.22		
Intersection Summary													
Area Type:	Other												
Cycle Length:	65												
Actuated Cycle Length:	33												
Natural Cycle:	60												
Control Type:	Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	315	0	0	240	0	0	0	0	265	2	194
Future Volume (vph)	0	315	0	0	240	0	0	0	0	265	2	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1586	
Flt Permitted		1.00			1.00					0.95	1.00	
Satd. Flow (perm)		1863			1863					1770	1586	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	342	0	0	261	0	0	0	0	288	2	211
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	136	0
Lane Group Flow (vph)	0	342	0	0	261	0	0	0	0	288	77	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		11.9			11.9					11.6	11.6	
Effective Green, g (s)		11.9			11.9					11.6	11.6	
Actuated g/C Ratio		0.37			0.37					0.36	0.36	
Clearance Time (s)		4.5			4.5					4.5	4.5	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Lane Grp Cap (vph)		682			682					631	566	
v/s Ratio Prot		c0.18			0.14						0.05	
v/s Ratio Perm										c0.16		
v/c Ratio		0.50			0.38					0.46	0.14	
Uniform Delay, d1		8.0			7.6					8.0	7.1	
Progression Factor		1.00			1.00					1.00	1.00	
Incremental Delay, d2		0.6			0.4					0.5	0.1	
Delay (s)		8.6			8.0					8.6	7.2	
Level of Service		A			A					A	A	
Approach Delay (s)		8.6			8.0			0.0			8.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.2		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			32.5		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			38.8%		ICU Level of Service					A		
Analysis Period (min)			15									

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰			↱		↱	↱	
Traffic Volume (vph)	0	256	241	25	177	0	0	0	0	51	196	37
Future Volume (vph)	0	256	241	25	177	0	0	0	0	51	196	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	540	0	27	192	0	0	0	0	0	308	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		30.0		12.0	42.0					23.0	23.0	
Total Split (%)		46.2%		18.5%	64.6%					35.4%	35.4%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.66		0.06	0.21						0.35	
Control Delay		12.2		4.9	5.8						13.9	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		12.2		4.9	5.8						13.9	
Queue Length 50th (ft)		49		2	17						20	
Queue Length 95th (ft)		229		10	47						77	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1315		506	1673						1870	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.41		0.05	0.11						0.16	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 37.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	256	241	25	177	0	0	0	0	51	196	37
Future Volume (vph)	0	256	241	25	177	0	0	0	0	51	196	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.93		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1741		1770	1863						3440	
Flt Permitted		1.00		0.24	1.00						0.99	
Satd. Flow (perm)		1741		447	1863						3440	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	278	262	27	192	0	0	0	0	55	213	40
RTOR Reduction (vph)	0	51	0	0	0	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	489	0	27	192	0	0	0	0	0	289	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		16.8		22.2	22.2						9.5	
Effective Green, g (s)		16.8		22.2	22.2						9.5	
Actuated g/C Ratio		0.41		0.55	0.55						0.23	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		718		273	1016						802	
v/s Ratio Prot		c0.28		0.00	c0.10							
v/s Ratio Perm				0.05							0.08	
v/c Ratio		0.68		0.10	0.19						0.36	
Uniform Delay, d1		9.8		5.6	4.7						13.1	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		2.7		0.2	0.1						0.3	
Delay (s)		12.4		5.8	4.8						13.3	
Level of Service		B		A	A						B	
Approach Delay (s)		12.4			4.9			0.0			13.3	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			11.2		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			40.7		Sum of lost time (s)					13.5		
Intersection Capacity Utilization			43.8%		ICU Level of Service					A		
Analysis Period (min)			15									

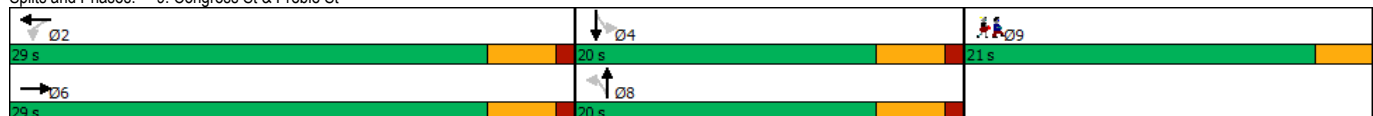
c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	387	32	80	399	136	0	0	0	0	0	0
Future Volume (Veh/h)	44	387	32	80	399	136	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	421	35	87	434	148	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					325							
pX, platoon unblocked	0.83						0.83	0.83		0.83	0.83	0.83
vC, conflicting volume	582			456			1216	1290	438	1216	1234	508
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	399			456			1160	1249	438	1160	1181	310
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			92			100	100	100	100	100	100
cM capacity (veh/h)	967			1105			130	126	618	130	139	609
Direction, Lane #	EB 1	WB 1										
Volume Total	504	669										
Volume Left	48	87										
Volume Right	35	148										
cSH	967	1105										
Volume to Capacity	0.05	0.08										
Queue Length 95th (ft)	4	6										
Control Delay (s)	1.4	2.0										
Lane LOS	A	A										
Approach Delay (s)	1.4	2.0										
Approach LOS												
Intersection Summary												
Average Delay		1.7										
Intersection Capacity Utilization		52.4%			ICU Level of Service				A			
Analysis Period (min)		15										

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (veh/h)	378	0	0	294	59	122
Future Volume (Veh/h)	378	0	0	294	59	122
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	411	0	0	320	64	133
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				341		
pX, platoon unblocked					0.96	
vC, conflicting volume			411		731	411
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			411		700	411
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		84	79
cM capacity (veh/h)			1148		390	641
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	411	320	197			
Volume Left	0	0	64			
Volume Right	0	0	133			
cSH	1700	1700	530			
Volume to Capacity	0.24	0.19	0.37			
Queue Length 95th (ft)	0	0	43			
Control Delay (s)	0.0	0.0	15.8			
Lane LOS			C			
Approach Delay (s)	0.0	0.0	15.8			
Approach LOS			C			
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utilization			37.3%	ICU Level of Service	A	
Analysis Period (min)			15			

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Group													
Lane Configurations		↰			↰			↰		↰	↰		
Traffic Volume (vph)	0	389	0	0	397	0	0	0	0	180	0	219	
Future Volume (vph)	0	389	0	0	397	0	0	0	0	180	0	219	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		72			151			106			198		
Travel Time (s)		1.6			3.4			2.4			4.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	423	0	0	432	0	0	0	0	196	238	0	
Turn Type		NA			NA					Perm	NA		
Protected Phases		6			2			8			4		9
Permitted Phases				2			8			4			
Detector Phase		6		2	2		8	8		4	4		
Switch Phase													
Minimum Initial (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)		10.5		10.5	10.5		10.5	10.5		10.5	10.5		21.0
Total Split (s)		29.0		29.0	29.0		20.0	20.0		20.0	20.0		21.0
Total Split (%)		41.4%		41.4%	41.4%		28.6%	28.6%		28.6%	28.6%		30%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5		3.0
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0		
Total Lost Time (s)		4.5			4.5			4.5		4.5	4.5		
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		None		None	None		None	None		None	None		None
v/c Ratio		0.57			0.58					0.43	0.26		
Control Delay		11.8			12.0					13.3	0.7		
Queue Delay		0.0			0.0					0.0	0.0		
Total Delay		11.8			12.0					13.3	0.7		
Queue Length 50th (ft)		52			54					26	0		
Queue Length 95th (ft)		130			133					78	0		
Internal Link Dist (ft)		1			71			26			118		
Turn Bay Length (ft)													
Base Capacity (vph)		1398			1398					672	1061		
Starvation Cap Reductn		0			0					0	0		
Spillback Cap Reductn		0			0					0	0		
Storage Cap Reductn		0			0					0	0		
Reduced v/c Ratio		0.30			0.31					0.29	0.22		
Intersection Summary													
Area Type:	Other												
Cycle Length:	70												
Actuated Cycle Length:	34.1												
Natural Cycle:	60												
Control Type:	Actuated-Uncoordinated												

Splits and Phases: 9: Congress St & Preble St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	389	0	0	397	0	0	0	0	180	0	219
Future Volume (vph)	0	389	0	0	397	0	0	0	0	180	0	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.5	4.5	
Lane Util. Factor		1.00			1.00					1.00	1.00	
Frt		1.00			1.00					1.00	0.85	
Flt Protected		1.00			1.00					0.95	1.00	
Satd. Flow (prot)		1863			1863					1770	1583	
Flt Permitted		1.00			1.00					0.76	1.00	
Satd. Flow (perm)		1863			1863					1410	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	423	0	0	432	0	0	0	0	196	0	238
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	160	0
Lane Group Flow (vph)	0	423	0	0	432	0	0	0	0	196	78	0
Turn Type		NA			NA					Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases				2			8			4		
Actuated Green, G (s)		13.6			13.6					11.0	11.0	
Effective Green, g (s)		13.6			13.6					11.0	11.0	
Actuated g/C Ratio		0.40			0.40					0.33	0.33	
Clearance Time (s)		4.5			4.5					4.5	4.5	
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Lane Grp Cap (vph)		754			754					461	518	
v/s Ratio Prot		0.23			c0.23						0.05	
v/s Ratio Perm										c0.14		
v/c Ratio		0.56			0.57					0.43	0.15	
Uniform Delay, d1		7.7			7.7					8.8	8.0	
Progression Factor		1.00			1.00					1.00	1.00	
Incremental Delay, d2		1.0			1.1					0.6	0.1	
Delay (s)		8.7			8.8					9.5	8.1	
Level of Service		A			A					A	A	
Approach Delay (s)		8.7			8.8			0.0			8.7	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.7			HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio		0.58										
Actuated Cycle Length (s)		33.6			Sum of lost time (s)					12.0		
Intersection Capacity Utilization		42.0%			ICU Level of Service					A		
Analysis Period (min)		15										

c Critical Lane Group

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations		↔		↔	↔					↔	↔	
Traffic Volume (vph)	0	275	213	98	294	0	0	0	0	26	85	0
Future Volume (vph)	0	275	213	98	294	0	0	0	0	26	85	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		121			162			350			192	
Travel Time (s)		2.8			3.7			8.0			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	531	0	107	320	0	0	0	0	0	120	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Detector Phase		6		5	2					4	4	
Switch Phase												
Minimum Initial (s)		6.0		5.0	10.0					6.0	6.0	
Minimum Split (s)		22.5		9.5	22.5					22.5	22.5	
Total Split (s)		35.0		12.0	47.0					23.0	23.0	
Total Split (%)		50.0%		17.1%	67.1%					32.9%	32.9%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		None		None	None					None	None	
v/c Ratio		0.55		0.18	0.24						0.17	
Control Delay		12.0		3.8	3.7						20.0	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		12.0		3.8	3.7						20.0	
Queue Length 50th (ft)		97		8	27						15	
Queue Length 95th (ft)		191		21	57						40	
Internal Link Dist (ft)		41			82			270			112	
Turn Bay Length (ft)												
Base Capacity (vph)		1259		626	1669						1773	
Starvation Cap Reductn		0		0	0						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.42		0.17	0.19						0.07	

Intersection Summary

Area Type: Other

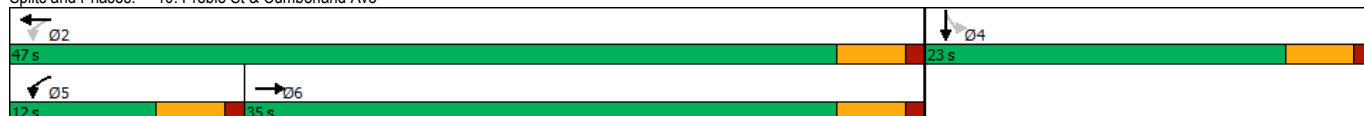
Cycle Length: 70

Actuated Cycle Length: 42.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Preble St & Cumberland Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	275	213	98	294	0	0	0	0	26	85	0
Future Volume (vph)	0	275	213	98	294	0	0	0	0	26	85	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.94		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1753		1770	1863						3498	
Flt Permitted		1.00		0.28	1.00						0.99	
Satd. Flow (perm)		1753		513	1863						3498	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	299	232	107	320	0	0	0	0	28	92	0
RTOR Reduction (vph)	0	39	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	492	0	107	320	0	0	0	0	0	120	0
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		6		5	2						4	
Permitted Phases				2						4		
Actuated Green, G (s)		19.8		29.4	29.4						5.2	
Effective Green, g (s)		19.8		29.4	29.4						5.2	
Actuated g/C Ratio		0.45		0.67	0.67						0.12	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		796		492	1256						417	
v/s Ratio Prot		c0.28		0.03	c0.17							
v/s Ratio Perm				0.12							0.03	
v/c Ratio		0.62		0.22	0.25						0.29	
Uniform Delay, d1		9.0		3.8	2.8						17.5	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		1.4		0.2	0.1						0.4	
Delay (s)		10.5		4.0	2.9						17.9	
Level of Service		B		A	A						B	
Approach Delay (s)		10.5			3.2			0.0			17.9	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			8.4		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			43.6		Sum of lost time (s)					13.5		
Intersection Capacity Utilization			49.2%		ICU Level of Service					A		
Analysis Period (min)			15									

c Critical Lane Group

11. SITE PLAN REVIEW STANDARDS

11.1 TRANSPORTATION STANDARDS

A Traffic Movement Permit (TMP) is not required for this project, because the project will not generate 100 or more passenger trips at peak hour. A Traffic Memo has been prepared by VHB for the proposed development and is attached.

1. *Impact on Surrounding Street Systems*

A Traffic Assessment is being prepared by VHB for the proposed development and will be provided under separate cover.

2. *Access and Circulation*

In general. The primary vehicular and pedestrian entrances to the site will largely remain unchanged. New vehicle loading/unloading zones are proposed on Congress and Preble Streets, as shown on the plans. VHB will work with the City Traffic Engineer to evaluate the impacts, if any, of the addition of the valet space proposed on Congress Street.

Loading & Servicing. Loading and trash removal will continue to be serviced from the Preble Street side of the building.

Curb and Sidewalks. Brick sidewalks and granite curb will be provided per the City of Portland "Sidewalks and Driveway Apron Materials Policy" on Congress and Preble Streets. The existing concrete sections of sidewalk located along Preble Street will be removed and replaced with brick.

3. *Public Transit Access*

No changes to public transit access are proposed as part of this project.

4. *Parking*

Vehicular Parking. Valet service will be provided for hotel guests. Per Table 19-B, no off-street parking is required for changes in use in the B-3 zone. The applicant is proposing, however, to provide fifty-six (56) parking spaces for hotel use in the garage at 45-Brown Street. Per Table 19-A of the Land Use Ordinance, the off-street parking requirement for a 196-room hotel (one parking space per 4 guest rooms) would be 49 parking spaces.

Bicycle Parking. Because off-street vehicular parking is not required for a change in use in the B-3 zone, and the bike parking requirement is based on vehicle parking required, no bike parking is required.

Snow Storage. The Site's snow removal will continue to be managed by a contracted third party to ensure safe pedestrian circulation and to maintain access to the building entrances.

Electric Vehicle (EV) Charging. Because off-street vehicular parking is not required for a change in use in the B-3 zone, and the EV Charging requirement is based on vehicle parking required, no EV Charging is required.

5. *Transportation Demand Management (TDM)*

A TDM plan is not required for this project.

11.2 ENVIRONMENTAL QUALITY STANDARDS

1. *Preservation of Significant Natural Features*

The Site is completely developed and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats, or wetland areas.

2. *Landscape Preservation*

The Site is completely developed and there is no existing landscaping or existing trees that will be removed.

3. *Site Landscaping & Buffers*

Three (3) street trees in raised planters are proposed on Congress Street, subject to approval by the City Arborist. No buffers are required for this project. All loading and servicing operations will be contained within the buildings.

4. *Water Quality, Stormwater Management, & Erosion Control*

This project site is completely developed, and the proposed project is a change in use of existing buildings. Stormwater will continue to be managed as it is currently, and no changes to site impervious area are proposed. This project will not create any changes to the quantity, or quality, of the stormwater runoff from the site.

The project is not located within the watershed of an Urban Impaired Stream and is not anticipated to pose a risk of groundwater contamination during or after construction. The development has also been designed to provide for the adequate and sanitary disposal of sewage, as further described in Section 13 of this Report.

Erosion Control Measures proposed during construction will include catch basin inlet protection where necessary.

11.3 PUBLIC INFRASTRUCTURE & COMMUNITY SAFETY STANDARDS

1. *Consistency with City Master Plans*

The project has been designed consistent with City Council approved Master Plans, including sewer and stormwater, streets, and other public facilities.

2. *Public Safety and Fire Prevention*

Provisions for public safety have been incorporated into the design of accesses and egresses. The design includes natural surveillance of public spaces and appropriate access control.

Emergency vehicle access is provided on the adjacent public roadways. Compliance with the Portland Fire Department Site Review Checklist is described elsewhere in this Report.

3. *Availability and Adequate Capacity of Public Utilities*

The availability and adequate capacity of public utilities is described elsewhere in this Report.

11.4 SITE DESIGN STANDARDS

1. *Massing, Ventilation, and Wind Impact*

This project is a change in use to existing buildings. There are no changes to massing, ventilation, or wind impacts.

2. *Shadows*

This project is a change in use to existing buildings and as such will not change its impacts from shadows. It is also located in the B3 zone, which is exempt from avoiding or mitigating shadow impacts.

3. *Snow and Ice Loading*

This project is a change in use to existing buildings. Any changes to building facades or elevations will be designed to prevent snow and ice from accumulating and falling onto abutting properties and public ways.

4. *View Corridors*

This project is a change in use to existing buildings. No view corridors are impacted.

5. *Historic Resources*

This project is in the Congress Street Historic District, and the buildings are all considered “contributing structures.” The proposed renovations take into consideration the preservation standards for the district, under the guidelines of The National Park Service and in accordance with the provisions of article IX (historic preservation) of the Land Use Code.

An application for a Certificate of Appropriateness for the proposed exterior renovations will proceed concurrently through the review process with the Historic Preservation Board.

6. *Exterior Lighting*

No changes to exterior lighting are proposed with the project.

7. *Noise and Vibration*

The noise impact from the proposed project will be minor. The primary source of noise from the proposed project will be the result of construction. Construction activities will be limited to the hours permitted by the City. HVAC and primary mechanical equipment will be located and screened to mitigate noise impacts. Noise associated with the proposed project will not exceed regulated levels and is not anticipated to negatively impact surrounding development in its urban setting. Noise and vibration associated with the proposed project will not exceed regulated levels.

8. *Signage and Wayfinding*

Sign permit applications will be submitted under separate cover. The size, scale, proportions, design, materials, placement, quantity and source and intensity of illumination shall be designed to complement and enhance the architectural attributes of the building and comply with the requirements of the Historic District.

9. *Design Standards*

This project supports the development of dense, mixed-use neighborhoods with attractive, safe, and convenient street-level pedestrian environment.

11.5 ATTACHMENTS

- Traffic Memorandum Prepared by VHB (to be submitted under separate cover)



13. BOUNDARY SURVEY

A boundary and topographic survey of the Site was completed by Owen Haskell, Inc. Professional Land Surveyors. The survey is included with the project drawings.

13.1 ATTACHMENTS

- Boundary & Topographic Survey, prepared by Owen Haskell, Inc. (uploaded to Drawings folder in Eplan)



12. CONSTRUCTION MANAGEMENT PLAN

A Construction Management Plan has been prepared by Wright-Ryan Construction for the proposed project. The Contractor will be required to provide adequate safety fencing and signage directing pedestrians safely around the construction area. The Construction Management Plan is attached to this Section for your reference.

12.1 ATTACHMENTS

- Construction Management Plan prepared by Wright-Ryan Construction (Uploaded to the Construction Management Plan folder on Eplan)

Construction Management Plan
[Wright-Ryan Construction – Time and Temperature]

The following is the Construction Management Plan for the renovation of the interior and exterior of the Time and Temperature Building, connecting Bank, and Annex Buildings located at the intersection of Preble Street and Congress Street in Portland, Maine. This building includes an adaptive re-use development of a boutique hotel consisting of a planned 190 rooms, 2 restaurants/bars, fitness center, and approximately 8,300 SF of retail and 10,000 SF of meeting space.

The Site of The Time & Temperature Building is a tight and urban in nature, and very similar to several projects Wright-Ryan has successfully completed on the Portland Peninsula. *(See attached Site Utilization plan for traffic, deliveries, and pedestrian control Plan 01)*

A. Construction Management Principles.

The proposed Construction Management Plan is configured to lessen the impact of the construction activities on Congress Street and Preble Street, abutters, and the surrounding neighborhood. Below is a list of control measures being taken

1. **Site Access:** A temporary construction site fence with gates will be used to control pedestrian and vehicle access to the site, for the safety of pedestrians and workers alike. The temporary fence will remain during all phases of construction management. Signage will be utilized to inform pedestrians to cross the street as the sidewalks will be closed during the construction of this building. *(See attached plan 01)*

2. **Traffic control:** Will be required throughout the entire project and will be crucial to logistics of the project.

A. Our initial plan is to close off the Congress Street and Preble Street Sidewalks around the building for laydown, deliveries, and trash removal. We would also work with the City to take at minimum, one lane of Preble Street for the safe offloading of materials and removal of debris away from the public way. We would prefer to close Preble Street for the entire duration since the more staging that can be done on Preble Street will reduce the impact to traffic and the neighbors on Congress Street. We will work out the details of this with the City prior to start of construction. We have developed and implemented similar approaches with the City of Portland engaging a local traffic engineer as necessary to ensure our site logistics meet all DOT requirements. This will require rerouting sidewalks and installing clear road and pedestrian signage to ensure a safe traffic flow.

B. Trenching activities for utilities and services in both Preble and Congress Streets will have traffic control on a as needed basis, and none of which is anticipated to extend past a week.

C. We will supply and remove materials to and from the building utilizing a material hoist on Preble Street as the most efficient way to

get materials to their destination and allow for debris to be removed. We will use the current elevators for construction personnel to access to their respective work areas. During the period we are constructing the areas within 481 Congress and the Annex areas we will utilize trash chutes to remove materials closer to the work areas on Congress and Preble, as the most efficient for 4 stories and lower. (See plans 02,03, and 04)

Time and Temperature Construction Management Plan (Rev 1)
2021

April 16,

- D. We intend to use a combination of hydro-mobile and scaffold systems around the exterior of the building. This will allow for multiple activities to take place at the same time to expedite schedule. We have some initial thoughts of where we would use each system as shown on the site utilization plans. However, this would be further refined as we engage subcontract partners and work through our Construction Management plan with the City. (See plans 02,03, and 04)

B. Development Review of Construction Management Plan.

Wright-Ryan will submit this construction management plan which outlines the logistics and safety measures being taken to protect the city and its residents as well as the workers during construction of this building. We will review this plan with the planning authority and Department of Public Works and obtain approval prior to start of construction. Minimizing impacts to areas surrounding the building site will be an important consideration in the development of this plan. (An initial proposed plan is attached P01)

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits.

1. **Street Opening Permit:** A street opening permit will be needed for the hook up of domestic water, sprinkler, sanitary, storm water, and gas during the project. These will happen at different areas and times along both Preble and Congress Streets. Our site contractor will be applying for these individually as the work is scheduled.
2. **Street Occupancy, Lane Closure, Parking and Sidewalk Closing Permits:** Sidewalk occupancy permits will be required for Congress Street. Street, parking, and sidewalk permits will be required Preble street. The Street opening permits will be for limited duration scheduled with the City for the utility hookups, the sidewalk and parking permits will be occupied for the duration of the project. We will need to close and divert two sidewalks as shown on the utilization plan during the duration of the project.
3. **Blasting:** Blasting will not be required for this project.

D. Construction Administration and Communication.

Wright-Ryan Construction will work diligently to ensure that communication with all parties involved is paramount. We intend to assist the developer in their conversations with abutters before and during construction to inform them of the work that is

scheduled to occur, to minimize the impact of construction to the surrounding abutters during the renovations. We will also provide construction signage with the contact information of our company, so we can be contacted should any issues arise. We propose the following contact persons at this time:

1. Project Manager: Chris Simmons – (207)747-8530
2. Project Superintendent: Jeff Giggey – (207) 405-1515

Note: These are subject to change based on Wright-Ryan personnel availability, but the final construction management plan will be up to date with the actual persons of contact. Also, until this project reaches the construction phase, contact should be limited to the Wright-Ryan Preconstruction Department which can be reached at 207- 773-3625.

3. Construction Signage will be clear and concise and will be removed at end of project.

E. Construction Schedule.

1. The preliminary timeline for this project is as follows:
 - a. Proposed Construction Start: January 2022
 - b. Proposed Final Completion: March 2024
(Summary Schedule is attached)
2. Hours of construction are currently foreseen as being limited to 7:00am to 5:00pm, Monday-Friday. Occasional weekend work is anticipated at this time, it will be limited to the hours allowed by the City of Portland. We may accept early deliveries to alleviate congestion on Congress Street, but no construction activities until 7AM.
3. Extended hours or night work are not foreseen at this time, but the city will be notified if these are required at any point during construction.
4. The majority of material deliveries will take place on Preble Street and directed to a laydown area on site or at a future satellite site as required.

F. Security & Public Safety.

1. The construction management plan drawings show where temporary construction fences and gates will be located during all phases of construction. These fences and gates will both secure the site as well as protect pedestrians from the construction equipment and work. (please see attached plans)
2. This construction project will be operated in accordance with all OSHA regulations.
3. A Fire Safety Program will be developed and adhered to during construction of this

G. Construction Permitting and Traffic Control Plans.

1. **Construction Activity in Public Streets:** Construction activity in public streets will have traffic control in place during working hours. This includes for any open excavations or construction equipment/vehicles temporarily parked on the side of

- the road. If open excavations will be left overnight, these excavations will be covered with steel plates and signage will alert drivers and pedestrians of the work.
2. **Sewer, Water, and Gas Services:** The sewer, water, and gas piping will need to be hooked up to city services for this project. Applicable Street Opening, and Excavation permits will be pulled prior to the start of this work.
 3. **Traffic Control Plans:** A preliminary plan is included in page 01 of the attachment. Individual plans will be developed for each street opening once we get closer to the work and a site contractor is engaged.

H. Site Management and Controls.

1. **Waste:** This construction site will have dumpsters stored near the construction entrances and will be changed out on a regular basis.
2. **Noise:** Will be confined to normal work hours. This noise will consist of normal vehicle traffic, construction equipment and normal construction noises such as banging and the sounds of power tools. This should not disturb the surrounding neighborhood.
3. **Snow Removal.** Wright-Ryan will be responsible for snow removal inside of the construction site and any closings of streets. We will rely on the city to plow all accessible public roads

I. Erosion Control and Preservation of Trees.

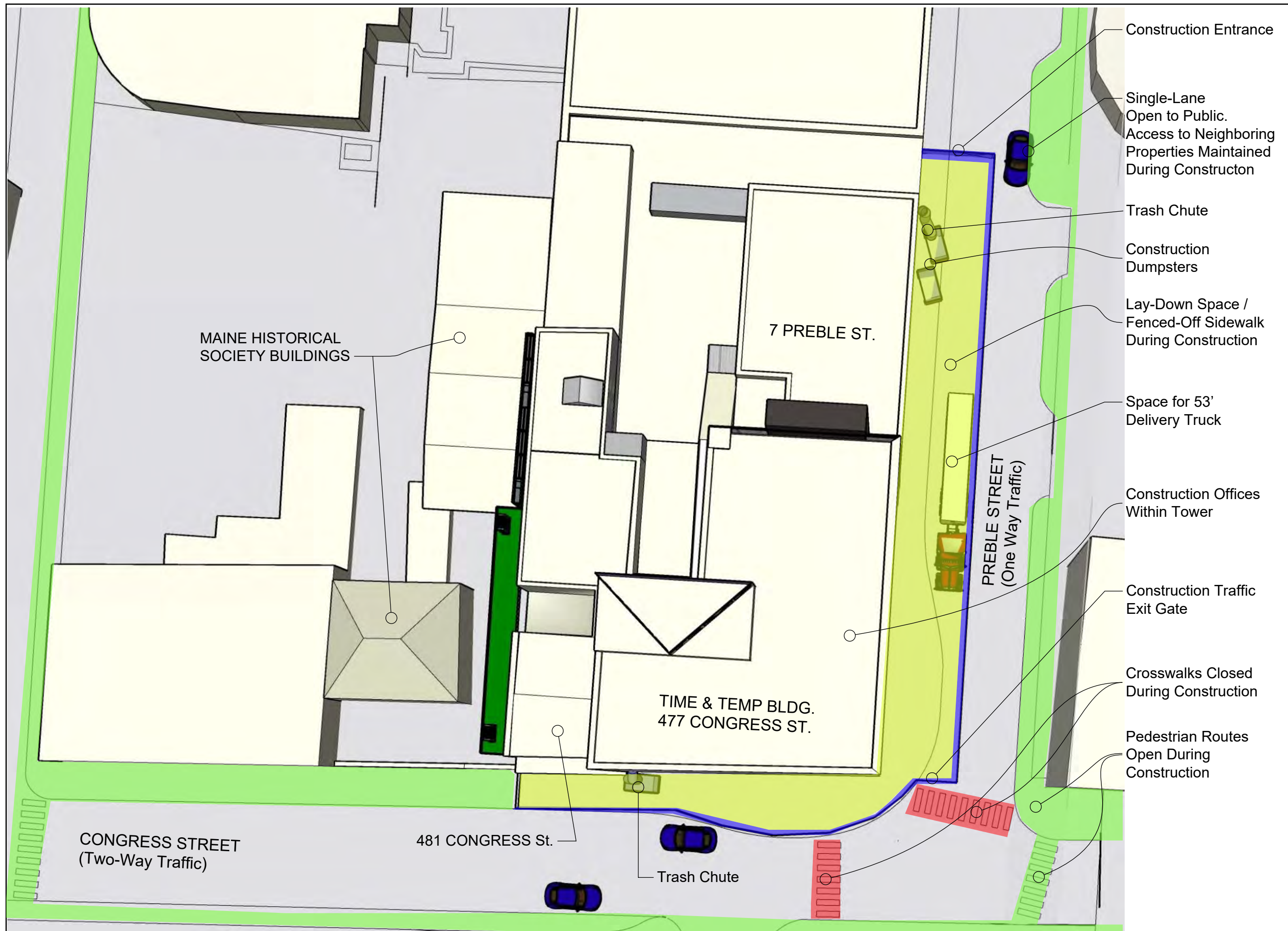
1. Erosion control measures and protection of trees is not foreseen for this site as it is an urban site, and there are no existing trees on either Congress or Preble Street.
2. We will use sediment control measures to prevent dirt and dust from our site from flowing into storm drains during inclement weather or melting.

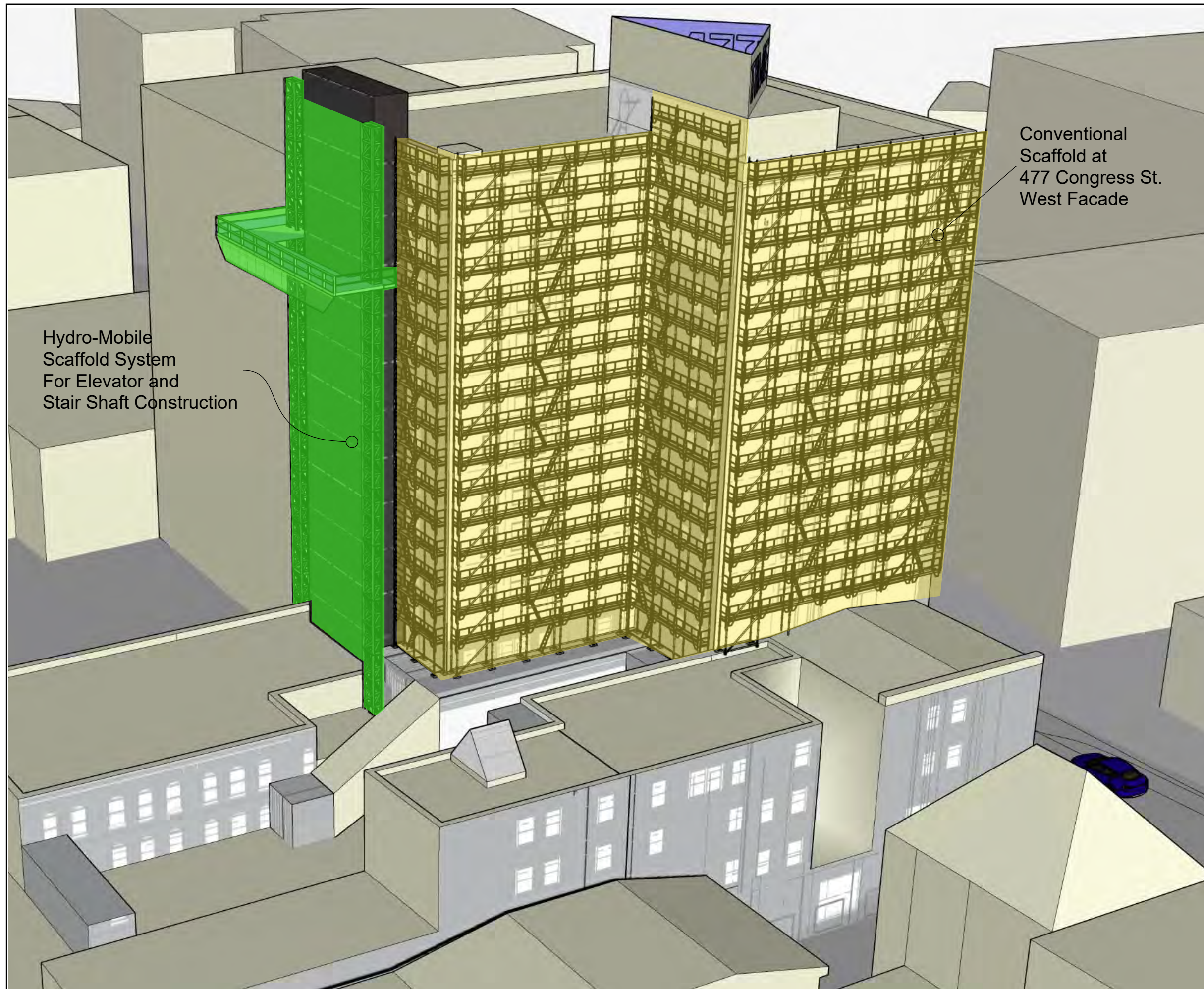
J. Construction Staging Area.

1. Staging for vehicle off loading and material storage will be on site and will occur on Preble Street. Deliveries will be scheduled to minimize queuing in the public streets. We will have a material hoist to bring material into its intended location as the construction site will have a limited footprint for storage.

K. Parking during construction

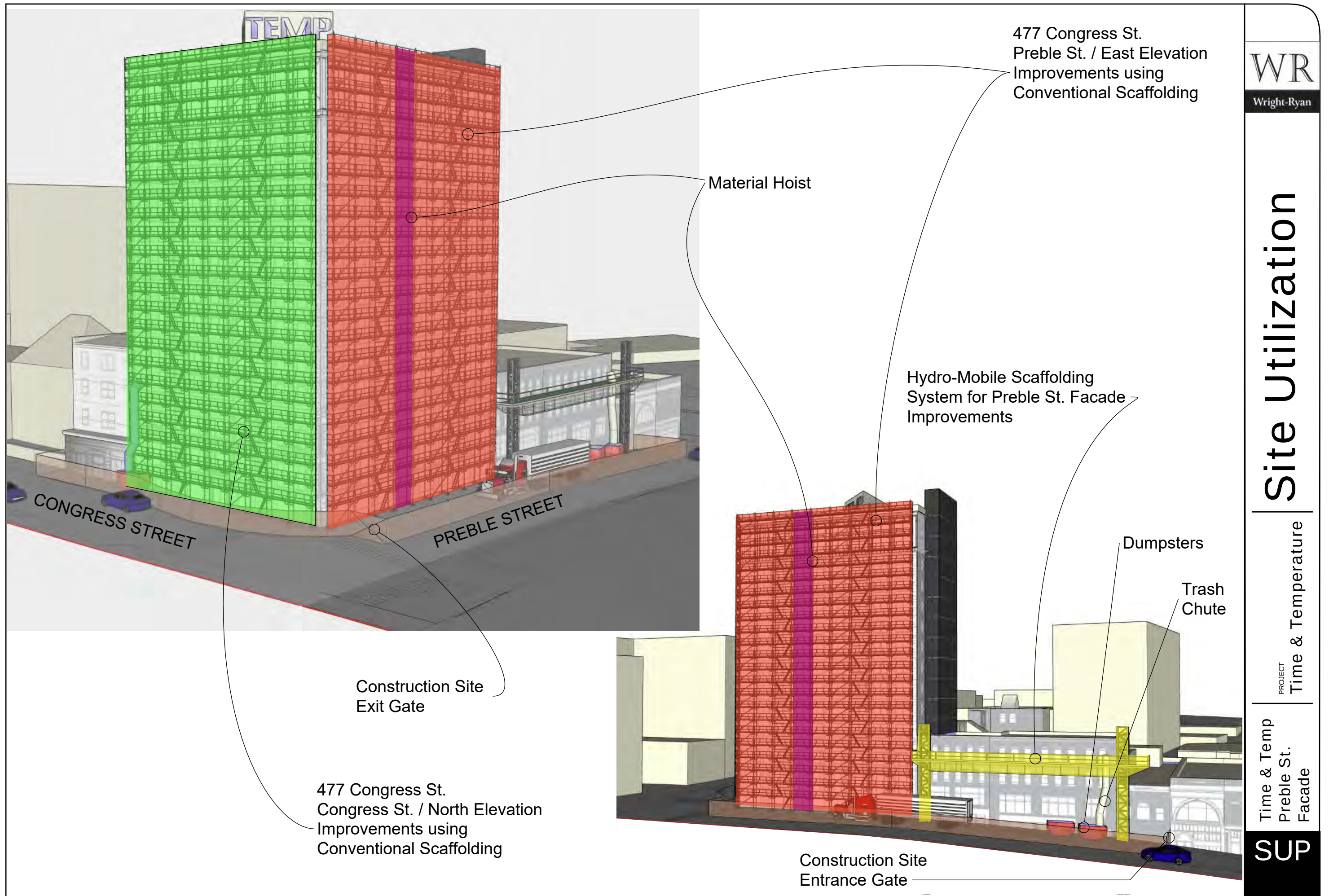
1. Parking on the construction site will be extremely limited. We will work with our subcontractor partners to establish offsite parking as we have done many times successfully in the past.
2. **Truck Routes and Volumes:** The expected truck route will be left on to Preble Street for loading and unloading then left onto Congress Street to exit the area.

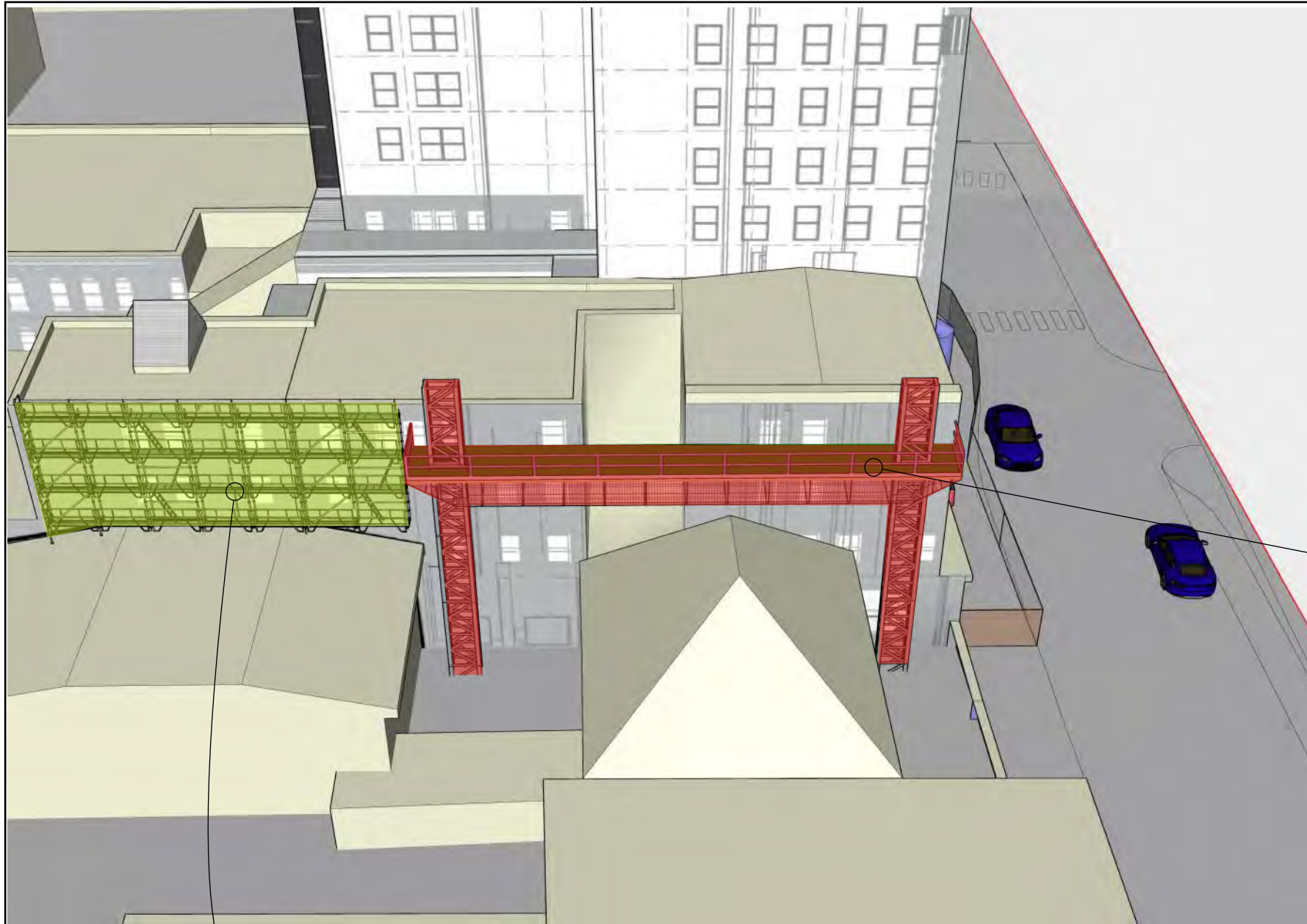




Hydro-Mobile
Scaffold System
For Elevator and
Stair Shaft Construction

Conventional
Scaffold at
477 Congress St.
West Facade



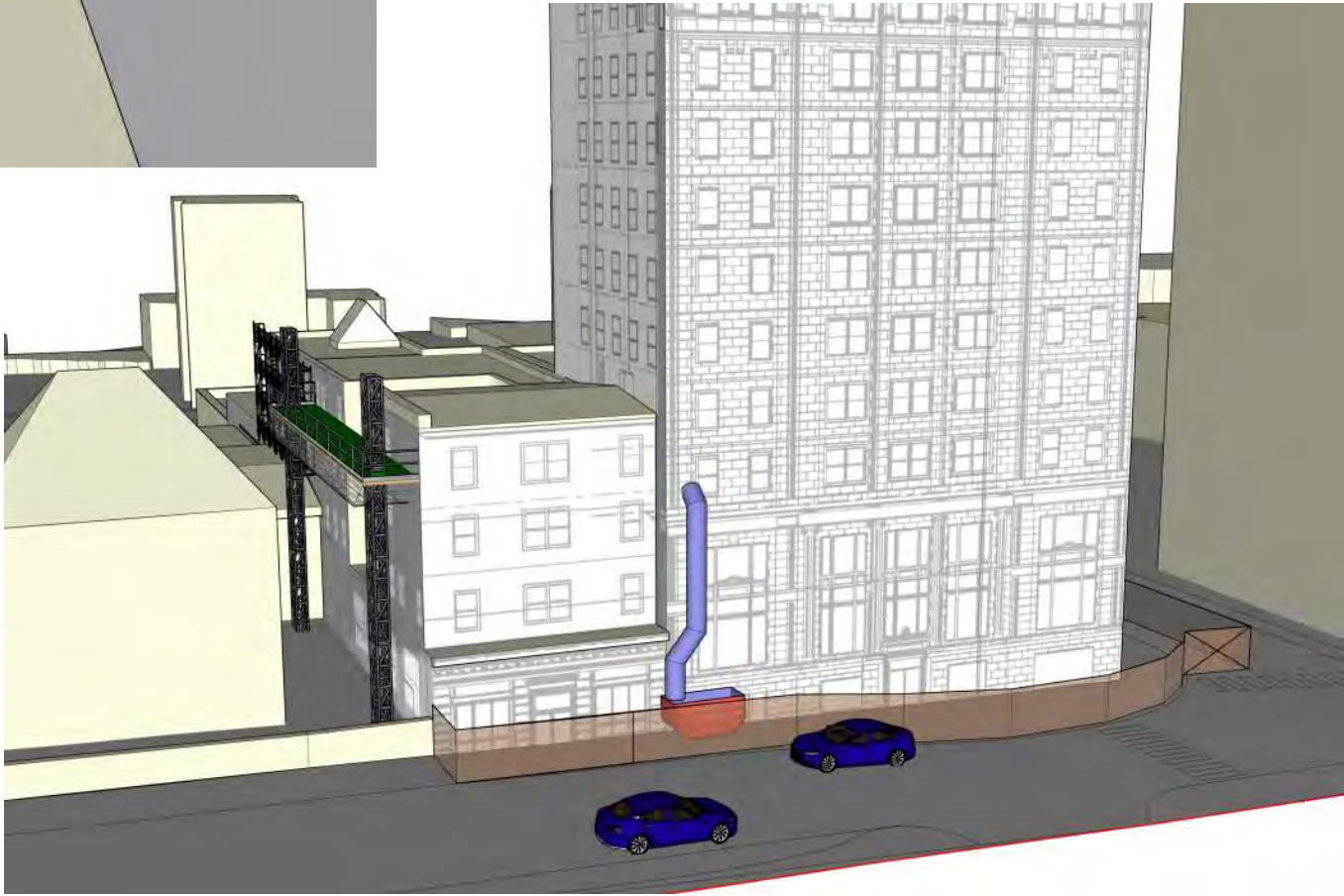


Option A: Hydro-Mobile Scaffolding System

Option B: Mobile Lift

(Coordinate with Maine Historical Society)

Conventional Scaffolding Above
Maine Historical Society Bldg. Roof
(Secured to 481 Congress, West Facade)



15. PORTLAND FIRE DEPARTMENT SITE REVIEW CHECKLIST

The items in the Portland Fire Department Site Review Checklist are addressed as follows:

- Name, address, telephone number of applicant:
 - TT Maine Venture, LLC, c/o Chris Rhoades
 - 3100 McKinnon Street, Suite 250, Dallas, TX 75201
 - (949) 554-3166
- Name, address, telephone number of architect:
 - Archetype PA, c/o David Lloyd, Architect
 - 48 Union Wharf, Portland, ME 04101
 - (207) 772-6022
- Proposed uses of any structures [NFPA and IBC classification]:
 - The structures are mixed-use. Use classifications are provided in the architectural plans.
- Square footage of all structures [total and per story]:
 - The square footage of all structures is provided on the architectural plans.
- Elevations of all structures:
 - The elevations of all structures are provided on the architectural plans.
- Proposed fire protection of all structures:
 - All structures shall be sprinkled.
- Hydrant locations:
 - Hydrant locations are shown on the Utility Plan.
- Water main size and location:
 - Watermain locations and sizes are shown on the Utility Plan.
- Access to all structures [min. 2 sides]:
 - Access will be provided to a minimum of two sides of all structures from Congress Street and Preble Streets.
- A code summary shall be included referencing NFPA 1 and all fire department technical standards:
 - The buildings will be compliant with requirements of NFPA 101: Uniform Fire Code. Automatic sprinkler systems and fire alarms will be provided as required by Use and Occupancy types.

14. AVAILABILITY & ADEQUACY OF PUBLIC UTILITIES

The proposed project will be serviced by existing public water, sewer, gas, and electric utilities. The locations of the utility services are shown on the Utility Plan included in the Design Drawings attached to Section 3. The proposed development will also generate waste because of construction and post-construction operations.

14.1 WATER

The existing buildings are served with 6" fire protection water services from Preble Street. These were renewed in 2020 and are adequate to serve this project.

A four-inch domestic water service is provided from Congress Street. According to the Portland Water District (PWD), this service is cast iron and dates to 1884. Due to the age of this service, the applicant is proposing renewal of this service and will work with PWD for its replacement with a new service from Preble Street. An ability to serve determination has been requested from PWD will be provided upon receipt.

14.2 SEWER

The existing buildings are currently served with an 8" sanitary sewer that exits to the rear into the parking area behind the 45-Brown Street parking garage, before continuing down the alley north of #28 Preble Street and connecting to the 15" sewer main in Preble Street. The applicant will continue use of the 8" sanitary sewer service and add a second 8" service to Preble Street from the east side of the building.

The proposed development will include restaurants and kitchens; a grease interceptor is proposed to serve the project to the north of the building, as shown on the plans.

A request for confirmation of ability to serve the proposed development has been made. A copy of the City's determination will be provided upon receipt.

14.3 ELECTRIC

The proposed project will continue to utilize underground electric service from Preble Street. Design of the electric service will be coordinated with Central Maine Power (CMP) by the design-build electrical contractor. Final electric plans will be provided to CMP for their review and an ability to serve determination will be provided upon receipt.

14.4 SOLID WASTE

Adequate provisions for recycling and solid waste disposal have been made. All solid waste materials and recyclables generated by the proposed project will continue to be transported and disposed of or recycled in accordance with applicable laws and regulations. Solid waste will be managed in full accordance with all applicable laws and regulations.

14.5 CONSTRUCTION & DEMOLITION DEBRIS

The proposed project will generate construction waste and demolition debris (CDD). The Contractor will be responsible for properly disposing of the CDD. The Contractor will be responsible for handling, managing, and disposing of all waste generated by construction in accordance with the Maine Solid Waste Management Regulations and all other applicable local, state, and federal regulations.

14.6 SPECIAL & HAZARDOUS WASTE

The proposed project is not anticipated to produce any hazardous waste.

A Voluntary Action Response Plan (VRAP) application was submitted for the properties in November of 2018 by Beacon Environmental Consultants to document previous investigations and a No Further Action Assurance Letter was issued in December of 2018 from the Maine DEP. The VRAP application and the response from the Maine DEP are attached.

14.7 ATTACHMENTS

- VRAP Application and Environmental Sampling Report – Beacon Environmental Consultants
- No Further Action Assurance Letter – December 4, 2018 – Maine DEP



BE-141

November 29, 2018

Mr. Nicholas Hodgkins
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333

RE: VRAP Application and Environmental Sampling Report
Time and Temperature Building
477-481 Congress Street, 22 Preble Street, and 45 Brown Street
Portland, Maine

Dear Nick:

At the request of the TT Maine Venture, LLC (TT), Beacon Environmental Consultants, LLC (Beacon) has compiled this letter report documenting the environmental sampling completed at the above referenced property and a Voluntary Response Action Program (VRAP) application. See **Figure 1** for a Site Location Map.

BACKGROUND

The subject property consists of approximately 1.819 acres of land which is currently occupied by one-14 story office building, a separate two and three story attached office building with retail and one-four story parking garage. The buildings were constructed in 1924, 1900, 1970 and 1909. The area surrounding the property is commercial and residential. The property is accessed via Congress Street to the southeast, Preble Street to the north and Brown Street to the southwest.

Previous Investigations

Spill Report P-110-1981

On November 6, 1981, the MEDEP was notified of a 1,000-gallon release of number 6 oil due to a tank overflow. Approximately 200 gallons made it to the city sewer. According to the spill report between vacuum and sorbents the cleanup was completed to the satisfaction of the Department.

Spill Report P-285-1995

On May 19, 1995, the MEDEP was notified that evidence of a discharge had been identified during environmental investigations as part of a property transfer. When Steve Brezinski of the MEDEP Spill Response Unit arrived, he found that the tank was a 10,000-gallon tank enclosed within a brick wall and covered with concrete, ergo an underground storage tank (UST) by MEDEP rules.

Investigations performed by Northrop Devine & Tarbell Engineering and Environmental Science (NDT) and Environmental Engineering and Remediation (EER) found petroleum-impacted soils and groundwater associated with areas around the tank. Determination was made by Mr. Brezinski, utilizing the Decision Tree, that the property was within a non-attainment zone and did not pose an environmental risk to abutting properties and therefore was considered to be "Baseline 2" and no further action was required. He recommended that the property owner submit an

P.O. BOX 2154, WINDHAM, MAINE 04062
Phone (207) 376-5001 Fax (207) 221-1354
www.BeaconMaine.com

application to VRAP. This was not completed.

Spill P-443-2004

On May 23, 2004, MEDEP was notified of a release of one gallon of number 2 oil when a driver did not hear the tank's whistle and it discharged out the vent. This was cleaned up to the Department's satisfaction.

Phase I Environmental Site Assessment – March 16, 2016

At the request of CW Capital Asset Management, LLC, Metropolitan Solutions was retained to conduct a Phase I Environmental Site Assessment at the subject property. The investigation was performed to determine if there was readily apparent evidence of environmental contamination present at the subject property. Metropolitan Solutions indicated that no evidence of recognized environmental conditions was found to exist on the property.

See **Attachment A** for copies of these reports.

SAMPLING

A Phase I ESA being conducted as part of this purchase and sale identified potential Recognized Environmental Conditions (RECs) associated with the UST. Beacon was retained by TT to complete sampling to determine if impacts were present.

On November 28, 2018, Beacon, utilizing a four-inch core drill, drilled two holes in the concrete near the UST. Once the holes were completed, Beacon utilized a hand Geoprobe® to collect a soil sample from 0-2' below the concrete. Samples from both samples were screened with a MiniRae 3000 Photoionization Detector (PID) to determine volatile concentrations. PID responses were 1.5 parts per million (ppm) in SS-01 and 0.4 ppm in SS-02. A sample was collected for laboratory analysis of Extractable Petroleum Hydrocarbons (EPH) and Volatile Petroleum Hydrocarbons (VPH). See **Figure 2** for sample locations.

Water was present in a low area beside the tank's wall. A sheen had been observed by the Site Assessor during the Phase I ESA site visit. Beacon advised TT that the sheen appeared to be biological in nature and not petroleum-related. To determine this, Beacon collected water in a clear jar and shook it to observe if petroleum sheens were present. The sample did not have a sheen. An additional sample of the sheen was collected for laboratory analysis of coliform and e coli. The soil samples for EPH and VPH and the water sample for coliform and e coli were submitted to Alpha Analytical Laboratory (Alpha) of Westboro, Massachusetts for analysis.

RESULTS

Analytical results of the soil samples were below MEDEP Remediation Guidelines for Petroleum Contaminated Site for EPH and VPH ranges and compounds. See **Table 1** for analytical results. The results of the water sample were positive for both coliform and e coli. See **Attachment B** for analytical results.

RECOMMENDATIONS AND CONCLUSIONS

Based on the analytical results there were no petroleum impacts above MEDEP Guidelines and therefore do not require remediation.

A VRAP application is attached to this report as **Attachment C**. We request a No Further Action Assurance (NFAA) letter be issued for this property.

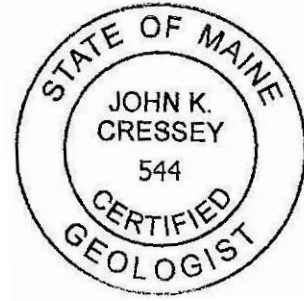
Please feel free to contact me with any questions.

Sincerely,

BEACON ENVIRONMENTAL CONSULTANTS, LLC



John K. Cressey, CG, PG
President



Cc: Chris Rhoades, TT Maine Venture, LLC

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS
TIME AND TEMPERATURE BUILDING, PORTLAND, MAINE

CLIENT SAMPLE ID			SS-01		SS-02	
SAMPLING DATE			28-NOV-18		28-NOV-18	
LAB SAMPLE ID			L1848527-02		L1848527-03	
	ME-SRG-R	Units		Qual		Qual
General Chemistry						
Solids, Total		%	94.5		95.6	
Volatile Petroleum Hydrocarbons						
Benzene	17	mg/kg	0.139	U	0.1	U
C5-C8 Aliphatics, Adjusted	1400	mg/kg	3.48	U	2.49	U
C9-C10 Aromatics	750	mg/kg	3.48	U	2.49	U
C9-C12 Aliphatics, Adjusted	2700	mg/kg	3.48	U	2.49	U
Ethylbenzene	130	mg/kg	0.139	U	0.1	U
Methyl tert butyl ether	790	mg/kg	0.07	U	0.05	U
Naphthalene	500	mg/kg	0.279	U	0.199	U
Toluene	2700	mg/kg	0.139	U	0.1	U
Xylenes, Total	6800	mg/kg	0.139	U	0.1	U
Extractable Petroleum Hydrocarbons w/MS Targets						
2-Methylnaphthalene	94	mg/kg	0.028	U	0.026	U
Acenaphthene	1500	mg/kg	0.028	U	0.026	U
Acenaphthylene	1500	mg/kg	0.028	U	0.026	U
Anthracene	7000	mg/kg	0.028	U	0.026	U
Benzo(a)anthracene	0.26	mg/kg	0.028	U	0.026	U
Benzo(a)pyrene	0.026	mg/kg	0.028	U	0.026	U
Benzo(b)fluoranthene	0.26	mg/kg	0.028	U	0.026	U
Benzo(ghi)perylene	750	mg/kg	0.028	U	0.026	U
Benzo(k)fluoranthene	2.6	mg/kg	0.028	U	0.026	U
C11-C22 Aromatics, Adjusted	750	mg/kg	37.4		6.54	U
C19-C36 Aliphatics	10000	mg/kg	213		6.54	U
C9-C18 Aliphatics	2700	mg/kg	9.04		6.54	U
Chrysene	26	mg/kg	0.028	U	0.026	U
Dibenzo(a,h)anthracene	0.026	mg/kg	0.028	U	0.026	U
Fluoranthene	1000	mg/kg	0.028	U	0.026	U
Fluorene	1000	mg/kg	0.028	U	0.026	U
Indeno(1,2,3-cd)Pyrene	0.26	mg/kg	0.028	U	0.026	U
Naphthalene	500	mg/kg	0.028	U	0.026	U
Phenanthrene	750	mg/kg	0.028	U	0.026	U
Pyrene	750	mg/kg	0.028	U	0.026	U

Notes:

Sample Results Comparison with Maine Resident Soil Remediation Criteria (ME-SRG-R).

mg/kg = milligrams per kilogram

U = Not Detected Above Laboratory Detection Limits

0.028

= Laboratory Detection Limit Above the ME-SRG-R

FIGURES

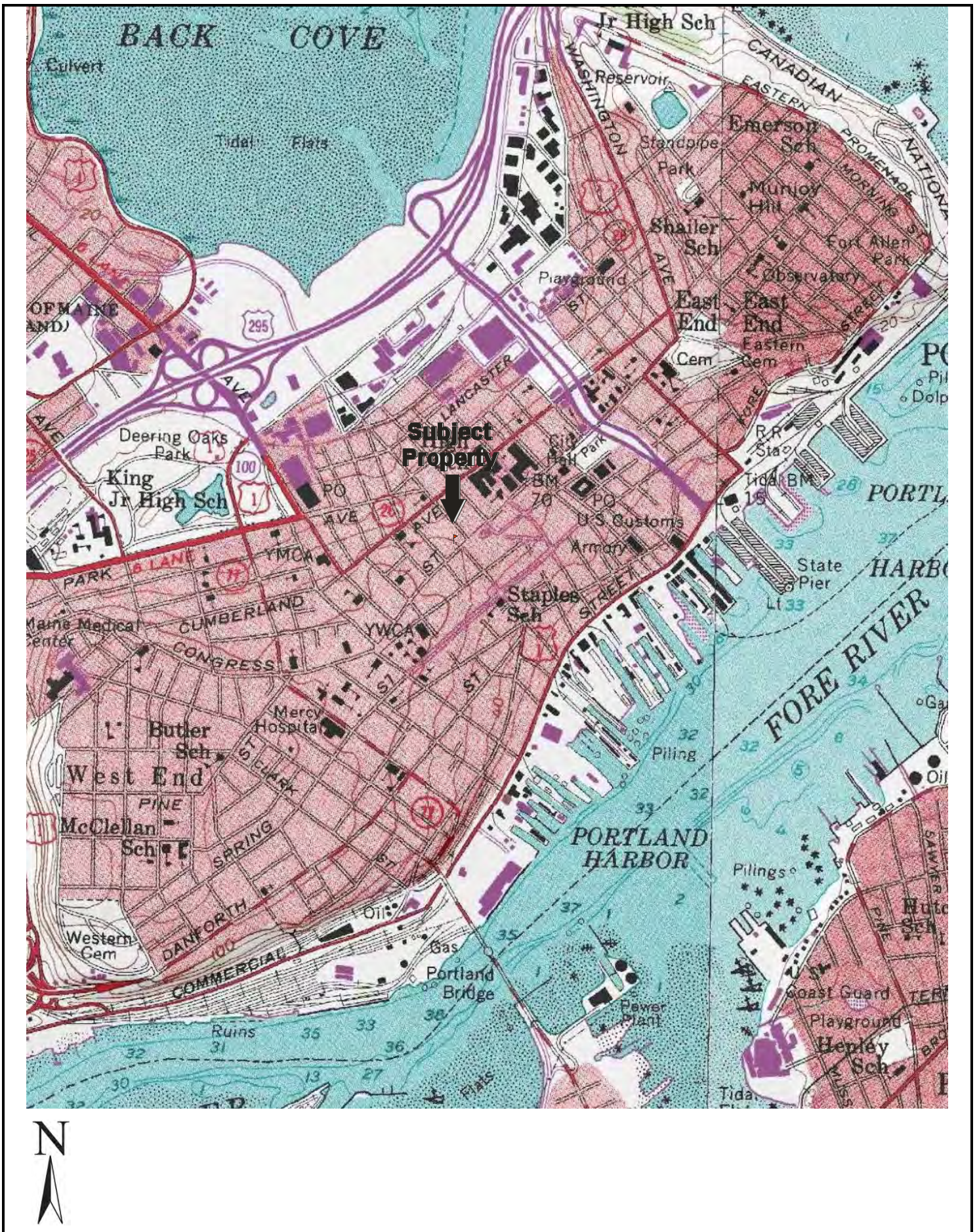


FIGURE 1: SITE LOCATION MAP
Project No. BE-141

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54

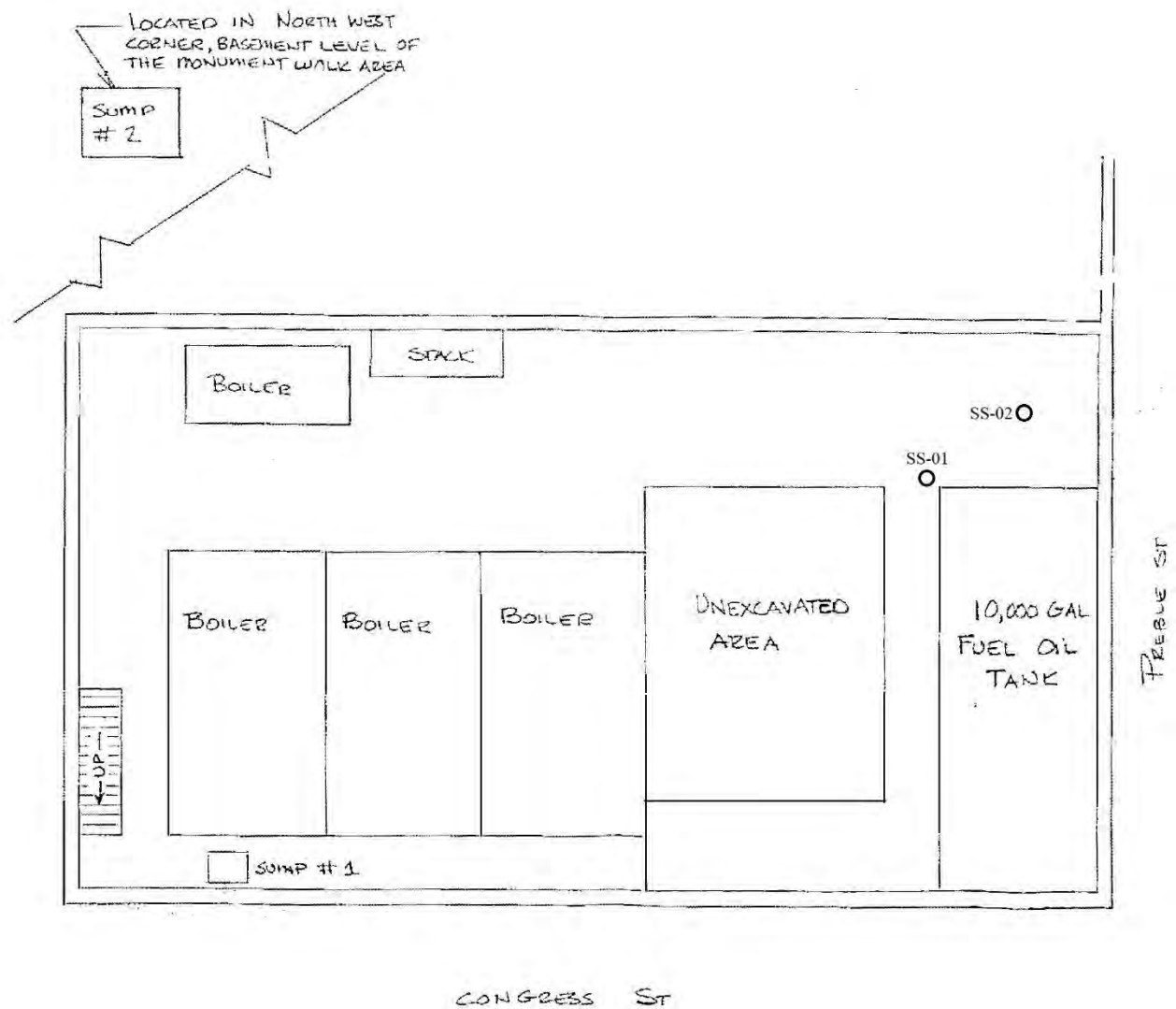


FIGURE 2: SAMPLING PLAN
477 CONGRESS STREET, PORTLAND, MAINE
Project No.: BE-141

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTIONPAUL R. LEPAGE
GOVERNOR

SCANNED

MELANIE LOYZIM
ACTING COMMISSIONER

December 4, 2018

TT Maine Venture, LLC
Attn: Chris Rhoades, Partner
74 Neptune Drive
Brunswick, Maine 04011Re: Time and Temperature Building, 477 Congress Street, Portland, Maine
No Further Action Assurance Letter - Voluntary Response Action Program

Mr. Rhoades:

The Maine Department of Environmental Protection ("Department") has reviewed your application to the Department's Voluntary Response Action Program ("VRAP"). The application and associated reports were submitted to the Department with the request that the property referred to as "Time and Temperature Building" in the Department's VRAP records, located at 477 Congress Street in Portland, identified on the Portland's Tax Map 37 as Lots F-2, F-18, F-22 and F-23, further described in **Book 33116, Page 257**, at the Cumberland County Registry of Deeds, and generally depicted in the figure included as Attachment A to this letter ("Site") participate in the VRAP, and TT Maine Venture, LLC ("Applicant"), as applicant to the VRAP, receive the protections provided by the *Voluntary Response Action Program* law, 38 M.R.S. § 343-E (1993).

Department staff has reviewed the following reports and supporting documents for the Site (hereinafter collectively referred to as the "Reports"):

- Phase I Environmental Site Assessment Report, Time and Temperature Building and Monument Square Parking Garage, 477-481 Congress Street, 22 Preble Street, 45 Brown Street, Portland, Maine, prepared by Metropolitan Solutions, March 16, 2016; and
- VRAP Application and Environmental Sampling Report, 477-481 Congress Street, 22 Preble Street, and 45 Brown Street, Portland, Maine, prepared by Beacon Environmental Consultants, LLC ("Beacon"), November 29, 2018.

The Site consists of four lots, is approximately 1.819 acres in total, and is developed with one 14-story office building, a separate two and three-story attached office building and a four-story parking garage. The Site and surrounding area is a mixture of commercial and residential

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4579 FAX: (207) 941-4584PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-1143website: www.maine.gov/dep

Time and Temperature Building, 477 Congress Street, Portland, Maine
VRAP No Further Action Assurance Letter

December 4, 2018
Page 2 of 3

properties. The proposed future use of the Site is largely consistent with current use, and may include residential uses.

The reports document the presence of a 10,000 gallon fuel oil tank enclosed within a brick wall and covered with concrete in the basement of the 14-story building. A past spill (P-285-1995) documented the presence of petroleum impacts around the tank. These impacts, however, met the appropriate guidance for that time and did not require any remedial actions.

In the most recent work conducted by Beacon in the tank area, both soil and groundwater results demonstrated that extractable petroleum hydrocarbons ("EPH") and volatile petroleum hydrocarbons ("VPH") were below the Department's current Remediation Guidelines for Petroleum Contaminated Sites for residential exposure scenarios.

No recognized environmental conditions other than those described in the Reports were reported to the Department in the Applicant's VRAP application.

Based on the information presented in the Reports, the Department considers no further investigations or remedial actions are necessary at the Site, provided that a copy of this letter is recorded at the Cumberland County Registry of Deeds. A copy of the recorded document must be supplied to the Department's VRAP within thirty (30) days of being recorded.

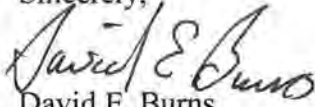
Therefore, the Applicant, their successors, assigns and/or affiliates, and the persons qualified for protection under 38 M.R.S. § 343-E(6) are entitled to protection from liability to the extent provided by 38 M.R.S. § 343-E, except that the protection from liability conferred by the VRAP is not granted to or assignable to any person, entity, or government agency that caused or is otherwise responsible for a release of petroleum, hazardous wastes, or hazardous substances at the Site or that has a Hazardous Waste Generator Closure obligation associated with the Site. This protection from liability will be limited to the matters addressed by and identified by the Reports, including the extent and concentration of existing contamination by petroleum and/or hazardous constituents described in the Reports, and is subject to the qualifications and conditions set forth in this letter and in 38 M.R.S. § 343-E. VRAP liability protections under 38 M.R.S. § 343-E do not limit the Department's enforcement authorities for non-compliance with other laws administered by the Department, including, but not limited to, lead abatement and asbestos regulations.

Time and Temperature Building, 477 Congress Street, Portland, Maine
VRAP No Further Action Assurance Letter

December 4, 2018
Page 3 of 3

If you have any questions regarding this letter, please feel free to call Nick Hodgkins of my staff at (207) 592-0882.

Sincerely,



David E. Burns
Acting Director
Bureau of Remediation & Waste Management

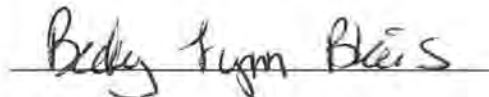
cc: Gary Vogel, Drummond Woodsum
John Cressey, Beacon
Nick Hodgkins, Department VRAP Coordinator

STATE OF MAINE
KENNEBEC, ss.,

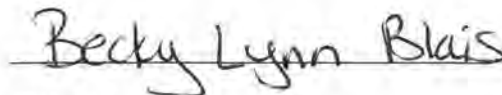
December 4, 2018

Then personally appeared the above-named David E. Burns, Acting 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,



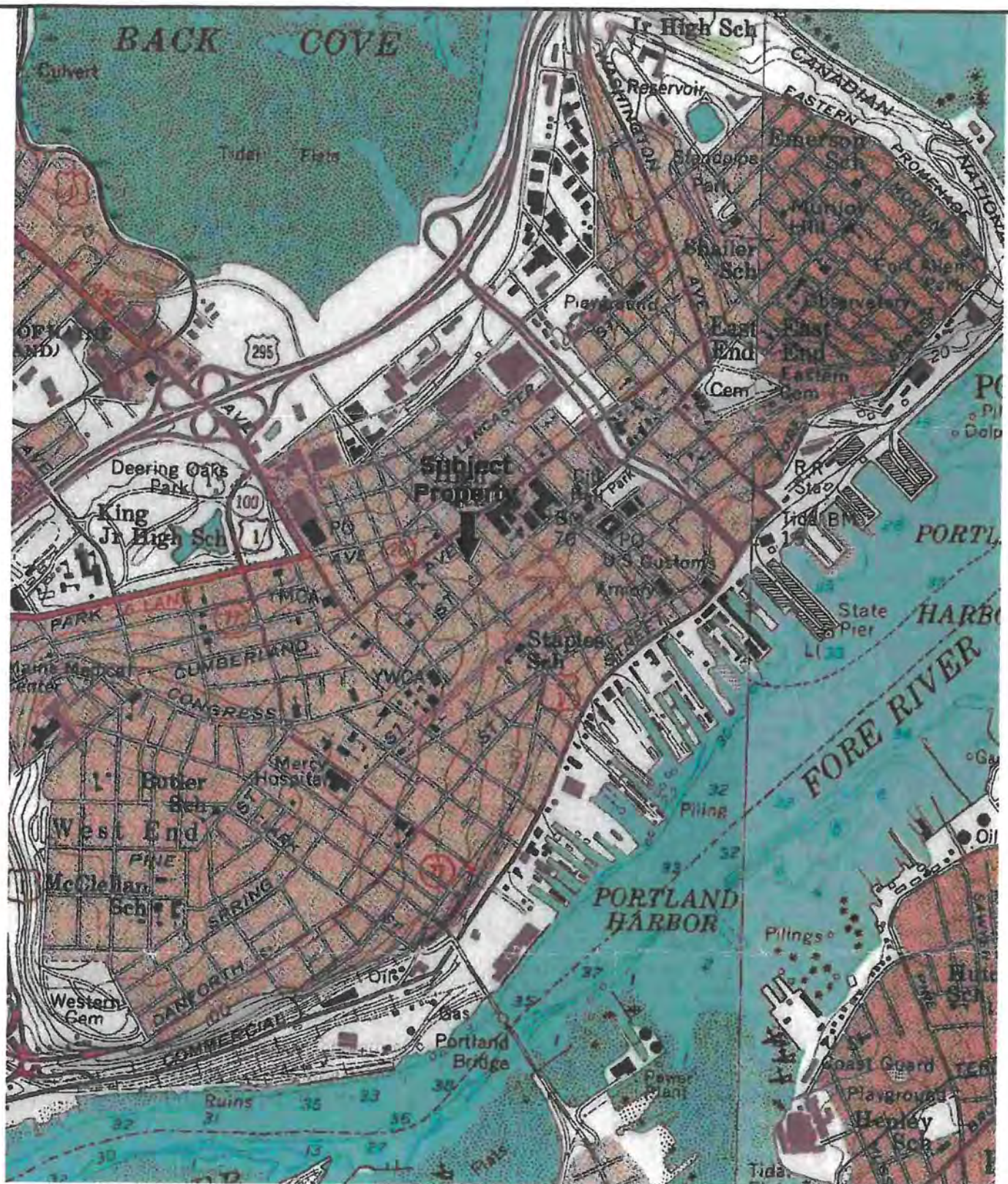
Notary Public



(Print name)

My commission expires: 11/8/25

SEAL



Received
Recorded Register of Deeds
Dec 13, 2018 11:58:20A
Cumberland County
Nancy A. Lane

FIGURE 1: SITE LOCATION MAP
Project No. BE-141

Drawing Not To Scale



477 CONGRESS HOTEL PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

NOT FOR CONSTRUCTION

PROJECT NO. 0232868.00

APRIL 2021

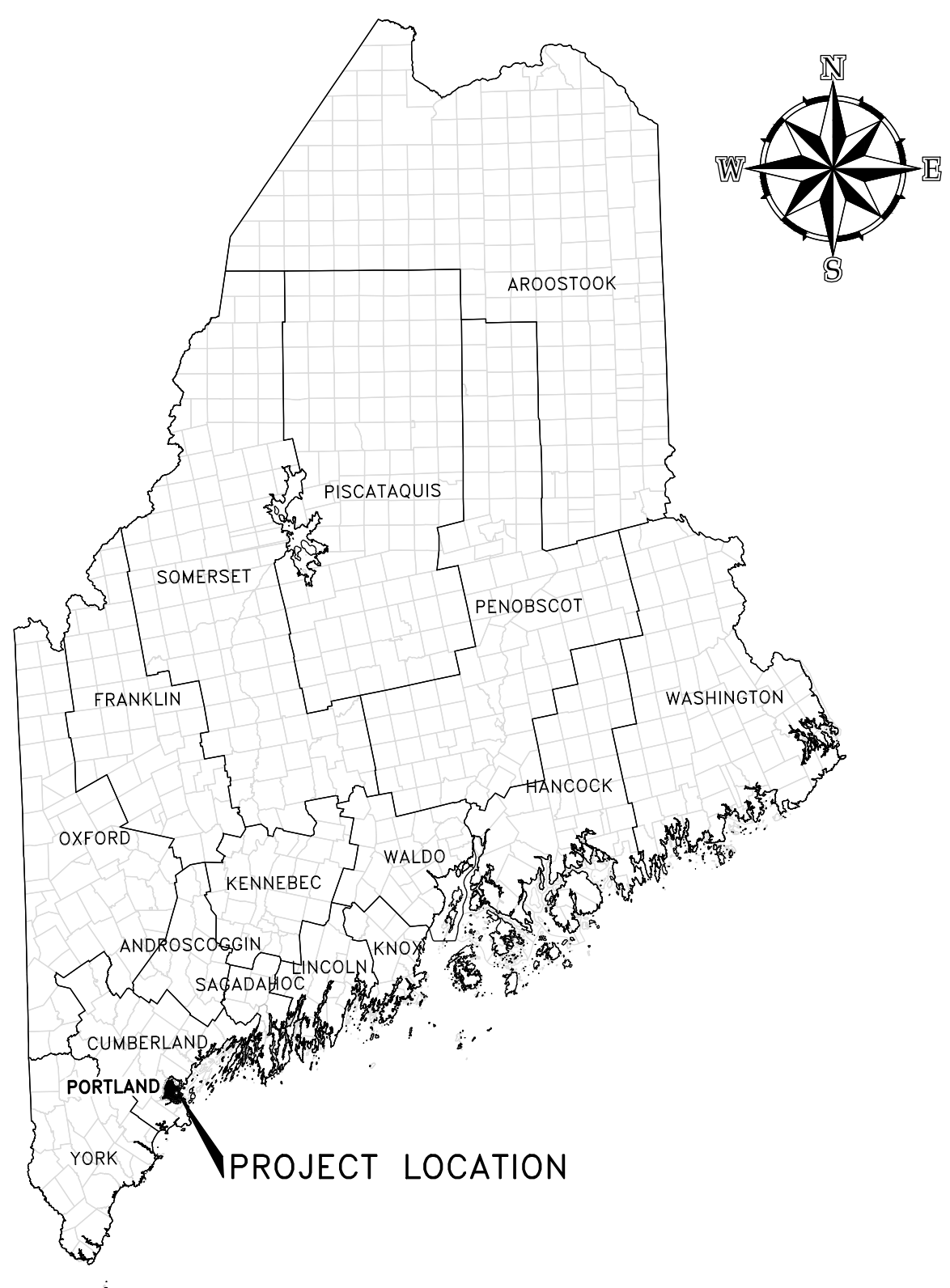
SHEET INDEX

- GENERAL
- G-001 COVER SHEET
- G-100 GENERAL NOTES, LEGEND, AND ABBREVIATIONS
- CIVIL
- C-200 OVERALL SITE PLAN
- C-201 GRADING AND DRAINAGE PLAN
- C-202 UTILITY PLAN
- C-300 CIVIL DETAILS - 1
- C-301 CIVIL DETAILS - 2

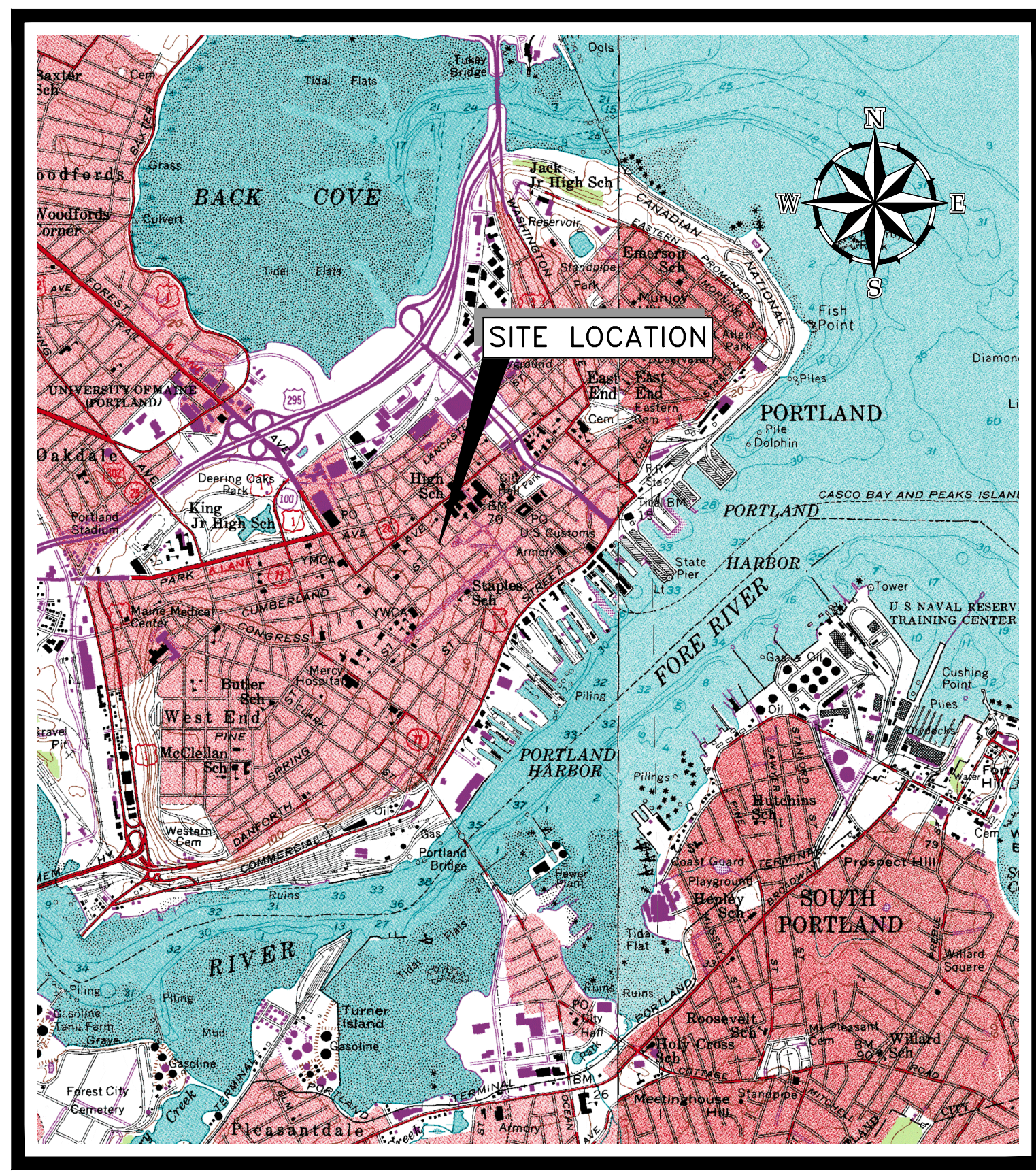


41 Hutchins Drive | Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

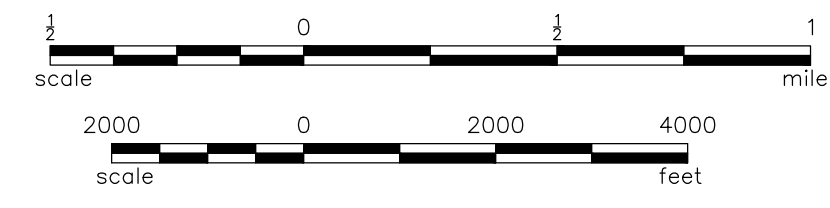
COMMITMENT & INTEGRITY DRIVE RESULTS



PROJECT LOCATION MAP



SOURCE: USGS TOPOGRAPHIC MAP
SITE LOCATION MAP



GENERAL NOTES:

1. SITE AND TOPOGRAPHIC DATA BASED ON A PLAN BY OWEN HASKELL, INC., FALMOUTH, MAINE, DATED JANUARY 9, 2020, TITLED "BOUNDARY & TOPOGRAPHIC SURVEY, TIME AND TEMPERATURE BUILDING, MONUMENT SQUARE PARKING GARAGE, 477-481 CONGRESS STREET, 22 PREBLE STREET, 45 BROWN STREET, PORTLAND, MAINE, MADE FOR 45 BROWN STREET, LLC".
2. VERTICAL DATUM IS BASED ON OFFICIAL CITY OF PORTLAND BENCHMARK: L 757-34-112 "M" MONUMENT AT THE NORTHWESTERLY CORNER OF FOREST AVE. & CUMBERLAND AVE. ELEVATION = 80.66' (REF. CITY L.B. 725 PG. 99-100)
3. HORIZONTAL DATUM IS BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83 PER CITY CONTROL POINTS: T124-11-1087, N: 300446.78, E: 2927558.71 AND T124-12-1096, N: 299913.92, E: 2926805.42
4. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO OR DEVIATION FROM THE APPROVED SITE PLAN, INCLUDING, WITHOUT LIMITATION: TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION, AND SURFACING OF PARKING AREAS, AND LOCATION AND SIZE OF BUILDINGS.
5. THE UTILITY LOCATIONS SHOWN IN PLAN ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION BY THE CONTRACTOR. CONTACT THE CITY IMMEDIATELY UPON DISCOVERING ANY CONFLICTS WITH EXISTING AND PROPOSED UTILITY LOCATIONS. NOT ALL EXISTING UTILITIES ARE SHOWN ON PLANS.
6. CLEAN AND/OR FLUSH ALL MANHOLES, CATCH BASINS, AND ASSOCIATED PIPING AFTER THE WORK HAS BEEN COMPLETED.
7. COORDINATE CONSTRUCTION ACTIVITY WITH UTILITY COMPANIES, EMERGENCY SERVICES AND CITY. CONTACTS ARE LISTED IN SPECIFICATIONS. NOTIFY UTILITY COMPANIES WITHIN 48 HOURS OF WORK ACTIVITY ADJACENT TO THOSE UTILITIES.
8. CONTRACTOR SHALL NOTIFY ALL UTILITIES PRIOR TO COMMENCING WORK, ALLOWING SUFFICIENT TIME TO LOCATE AND MARK THE LOCATION OF BURIED UTILITIES. CONTRACTOR SHALL CONTACT "DIG SAFE", TELEPHONE 888-344-7233, PRIOR TO EXCAVATION.
9. RESTORE ALL AREAS DISTURBED BY CONTRACTOR'S OPERATIONS TO ORIGINAL FINISH (GRAVEL, PAVEMENT, GRASS, ETC.). RESTORATION OF PAVED SURFACES, GRAVEL SURFACES, DRIVEWAYS, AND LAWNS DAMAGED BY CONSTRUCTION ACTIVITIES OUTSIDE OF LIMITS OF WORK INDICATED ON THE PLANS SHALL BE PERFORMED AT NO ADDITIONAL COST TO OWNER. ANY CURB DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN KIND AND SHALL CONFORM TO CITY OF PORTLAND AND MAINE DOT SPECIFICATIONS AT NO ADDITIONAL COST TO OWNER.
10. PROPERLY PROTECT AND DO NOT DISTURB PROPERTY IRONS AND MONUMENTS. IF DISTURBED, THE PROPERTY MONUMENT SHALL BE RESET AT THE CONTRACTOR'S EXPENSE BY A LICENSED LAND SURVEYOR ACCEPTABLE TO THE CITY.
11. EXISTING FACILITIES (I.E. TREES, POLES, LIGHT POSTS, CATCH BASINS, ETC.) SHALL BE REMOVED AND PROTECTED DURING CONSTRUCTION. OWNER AND/OR CITY RETAINS RIGHT TO KEEP ANY AND ALL REMOVED FACILITIES FOR WORK WITHIN RIGHT-OF-WAY. CONTRACTOR TO DISPOSE OF ANY REMOVED FACILITY AT THE REQUEST OF OWNER AT CONTRACTOR'S EXPENSE.
12. ALL TREES NOT NOTED TO BE REMOVED OR RELOCATED SHALL BE PROTECTED BY CONTRACTOR DURING CONSTRUCTION.
13. ALL WORK WITHIN THE RIGHT OF WAY OF CITY STREETS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY TRAFFIC ENGINEER. THE CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN TO THE TRAFFIC ENGINEER AT LEAST 7 DAYS BEFORE BEGINNING CONSTRUCTION IN ANY STREET. THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE SUBJECT TO APPROVAL BY THE TRAFFIC ENGINEER, WHO MAY ATTACH SPECIAL CONDITIONS TO, OR REQUIRE MODIFICATIONS OF, THE TRAFFIC CONTROL PLAN. WORK SHALL NOT BEGIN UNTIL THE PLAN IS APPROVED BY THE TRAFFIC ENGINEER.
14. DO NOT PARK, IMPEDE ACCESS TO, OR STORE EQUIPMENT ON ADJACENT CITY OR PRIVATELY OWNED LOTS, UNLESS PERMISSION HAS BEEN GRANTED IN WRITING BY CITY AND/OR LAND OWNER.
15. COORDINATE DISRUPTION OF PRIVATE UTILITY SERVICES WITH LANDOWNERS AT LEAST TWO DAYS (48 HOURS) PRIOR TO DISRUPTION. ALL UTILITY COORDINATION IS RESPONSIBILITY OF CONTRACTOR.
16. RESTRICT ACCESS TO SITE THROUGH THE USE OF APPROPRIATE SIONAGE, BARRIERS, FENCES, ETC. SITE SHALL BE LEFT WITH APPROPRIATE SAFETY MEASURES IN PLACE DURING NON-WORKING HOURS. NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. SITE SAFETY IS THE RESPONSIBILITY OF CONTRACTOR, DURING BOTH WORKING AND NON-WORKING HOURS.
17. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS. PERMIT APPLICATIONS SHALL BE SUBMITTED WITH ADEQUATE TIME SO AS NOT TO DELAY CONSTRUCTION.
18. THE CONTRACTOR SHALL OBTAIN A CITY STREET OPENING PERMIT BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR WILL ALSO BE REQUIRED TO HAVE A CURRENT EXCAVATOR'S LICENSE IN THE CITY. THE EXCAVATOR'S LICENSE FEE WILL NOT BE WAIVED BY THE CITY.
19. ALL WORK ASSOCIATED WITH THE PROJECT SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES VI, VII, AND IX OF CHAPTER 25-STREETS, SIDEWALKS, AND OTHER PUBLIC PLACES OF THE CITY OF PORTLAND CODE OF ORDINANCES.
20. ALL SEWER CONSTRUCTION IN THE PUBLIC WAY SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLE II OF CHAPTER 24-SEWERS OF THE CITY OF PORTLAND CODE OF ORDINANCES.
21. THE CITY OF PORTLAND ENGINEERING DIVISION REQUIRES THAT UPON COMPLETION OF CONSTRUCTION, A COMPLETE SET OF "RECORD" DRAWINGS THAT REFLECT ANY AND ALL MODIFICATIONS TO THE SANITARY SEWER SYSTEM, STORM SEWER SYSTEM AND ANY OTHER UTILITY INSTALLATIONS OR ALTERATIONS WITHIN THE PROJECT LIMITS BE SUBMITTED TO THE DIVISION.
22. WORK IS IN CLOSE PROXIMITY TO EXISTING UTILITIES. PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
23. FOR TEST PIT LOCATIONS SHOWN ON PLANS, FIELD VERIFY EXISTING UTILITY ELEVATIONS PRIOR TO NEW UTILITY INSTALLATION. NOTIFY ENGINEER OF ANY CONFLICTS.
24. CONTACT CITY OF PORTLAND ARBORIST AND ENGINEER PRIOR TO CUTTING ROOTS, TRIMMING BRANCHES, OR DISTURBING TREES WITHIN THE R.O.W. THAT NOT HAVE BEEN NOTED FOR REMOVAL ON THE PLANS.
25. PROVIDE 6-INCHES OF LOAM AND SEED IN ALL LAWN AREAS DISTURBED BY CONTRACTOR'S OPERATIONS UNLESS NOTED OTHERWISE.
26. IF CONTRACTOR PROPOSES TO TEMPORARILY STOCKPILE ANY SURPLUS SOIL AND ROCK IN THE CITY OF PORTLAND, THE CONTRACTOR SHALL OBTAIN APPROVAL FOR EACH STOCKPILE LOCATION FROM THE ENGINEER. IF CONTRACTOR PROPOSES TO PERMANENTLY STOCKPILE ANY SURPLUS SOIL AND ROCK ON PROPERTY IN THE CITY OF PORTLAND, THE CONTRACTOR MUST OBTAIN ANY SITE PLAN PERMITS REQUIRED FROM THE CITY PLANNING AUTHORITY OR ANY FILL PERMITS REQUIRED FROM MDEP OR U.S. ARMY CORPS OF ENGINEERS. BOTH TEMPORARY AND PERMANENT STOCKPILE LOCATIONS SHALL MEET THE APPLICABLE SETBACK REQUIREMENTS IN THE CITY LAND USE CODE AND SHALL RECEIVE PROPER STABILIZATION AND EROSION & SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED SOIL EROSION & WATER POLLUTION CONTROL PLAN.
27. CAPPED PIPE STUB LOCATIONS SHALL BE MARKED WITH EMBEDDED STAKE AND A MINIMUM OF THREE TIES SHOULD BE RECORDED. EMBEDDED STAKE SHALL BE 2x4 WITH PK NAIL DRIVEN IN TOP, LENGTH AS REQUIRED TO SPAN FROM TOP OF PIPE TO 6" BELOW GRADE LOCATION AND ELEVATION OF PIPE STUB SHALL BE PROVIDED TO THE CITY OF PORTLAND ENGINEERING OFFICE. WARNING TAPE AND WIRE SHALL BE INSTALLED OVER PIPE STUBS IN ACCORDANCE WITH SPECIFICATIONS.
28. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC SERVICES REPRESENTATIVE, AND OWNER TO REVIEW THE CONSTRUCTION SCHEDULE AND CRITICAL ASPECTS OF THE SITE WORK. AT THAT TIME, THE SITE/BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A MUTUALLY AGREEABLE TIME FOR THE PRECONSTRUCTION MEETING.
29. EXISTING PAVEMENT SHALL BE SAWCUT AND BUTTED TO THE NEW PAVEMENT. NO FEATHERING OF PAVEMENT WILL BE PERMITTED.

SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER MANHOLE		
STORM DRAIN MANHOLE		
CATCH BASIN		
DRAIN BASIN		
ELECTRICAL MANHOLE		
COMMUNICATIONS MANHOLE		
CABLE MANHOLE		
UTILITY POLE W/GUY		
UTILITY POLE		
UTILITY POLE W/LIGHT		
LIGHT POLE		
WATER GATE		
WATER VALVE		
WATER SHUT OFF		
HYDRANT		
SIGN		
MAILBOX		
CONIFEROUS TREE		
DECIDUOUS TREE		
IRON PIN (FOUND)	*	
MONUMENTS (FOUND)	*	
TEST PIT		
BITUMINOUS PAVEMENT		
BRICK SIDEWALK		

LINE TYPES

DESCRIPTION	EXISTING	PROPOSED
CONTOUR (1' INTERVAL)		
CONTOUR (INDEX)		
SANITARY SEWER		
STORM DRAIN		
UNDERDRAIN		
WATER MAIN		
UNDERGROUND ELECTRIC		
GAS LINE		
OVERHEAD ELECTRIC		
UNDERGROUND ELECTRICAL /COMMUNICATIONS/CABLE		
PROPERTY LINE		
RIGHT OF WAY		
EASEMENT		
FENCE		
RETAINING WALL		
STONEWALL		
CURB		
TYPE 1 GRANITE CURB		
BITUMINOUS CURB		
EDGE OF PAVEMENT		
RETAINING WALL		
BUILDING OUTLINE		
SAWCUT		

ABBREVIATIONS

&	AND	N.I.C.	NOT IN CONTRACT
A.G.	ABOVE GROUND	NO.	NUMBER
BC	BOTTOM OF CURB	NR	NO REFUSAL
BIT	BITUMINOUS	N.T.S.	NOT TO SCALE
BW	BOTTOM OF WALL	OE	OVERHEAD ELECTRIC
B/W	BETWEEN	OH	OVERHEAD
CB	CATCH BASIN	±	PLUS OR MINUS
CI	CAST IRON	LLS	LICENSED LAND SURVEYOR
CMP	CENTRAL MAINE POWER	PROP.	PROPOSED
CMP	CORRUGATED METAL PIPE	PT.	POINT
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
DI	DUCTILE IRON	R.O.W.	RIGHT-OF-WAY
DIA.	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DMH	DRAIN MANHOLE	REINF.	REINFORCED
DTL.	DETAIL	REQ'D	REQUIRED
E	UNDERGROUND ELECTRICAL	S	SLOPE (FT./FT.)
EL.	ELEVATION	S	SEWER
E.O.P.	EDGE OF PAVEMENT	SD	STORM DRAIN
EXIST.	EXISTING	SMH	SEWER MANHOLE
FF	FINISH FLOOR	SCH	SCHEDULE
FT	FOOT/FEET	STA.	STATION
G	GAS MAIN	TS	TOP OF STAIRS
GS	GAS SERVICE	TW	TOP OF WALL
GALV.	GALVANIZED	TYP.	TYPICAL
GRAN.	GRANITE	UP	UTILITY POLE
HDPE	HIGH DENSITY POLYETHYLENE	VC	VITRIFIED CLAY
HYD	HYDRANT	VIT.	VITRIFIED CLAY
INV.	INVERT	W	WEST
LF	LINEAR FEET	W	WATER
		W/	WITH
MAX.	MAXIMUM	W	WATERMAIN
MDOT	MAINE DEPARTMENT OF TRANSPORTATION	WS	WATER SERVICE
MIN.	MINIMUM	WV	WATER VALVE
MON	MONUMENT		

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

477 CONGRESS HOTEL
PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232868.00
DATE: APRIL 2021
SCALE: NONE
SHEET: 1 OF 7

G-100

NOT FOR CONSTRUCTION

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

WOODARD & CURRAN

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR DISTRIBUTION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

REV	DESCRIPTION	DATE

DESIGNED BY: ANL
DRAWN BY: JEC
CHECKED BY: DBS
DATE: 02/28/2024

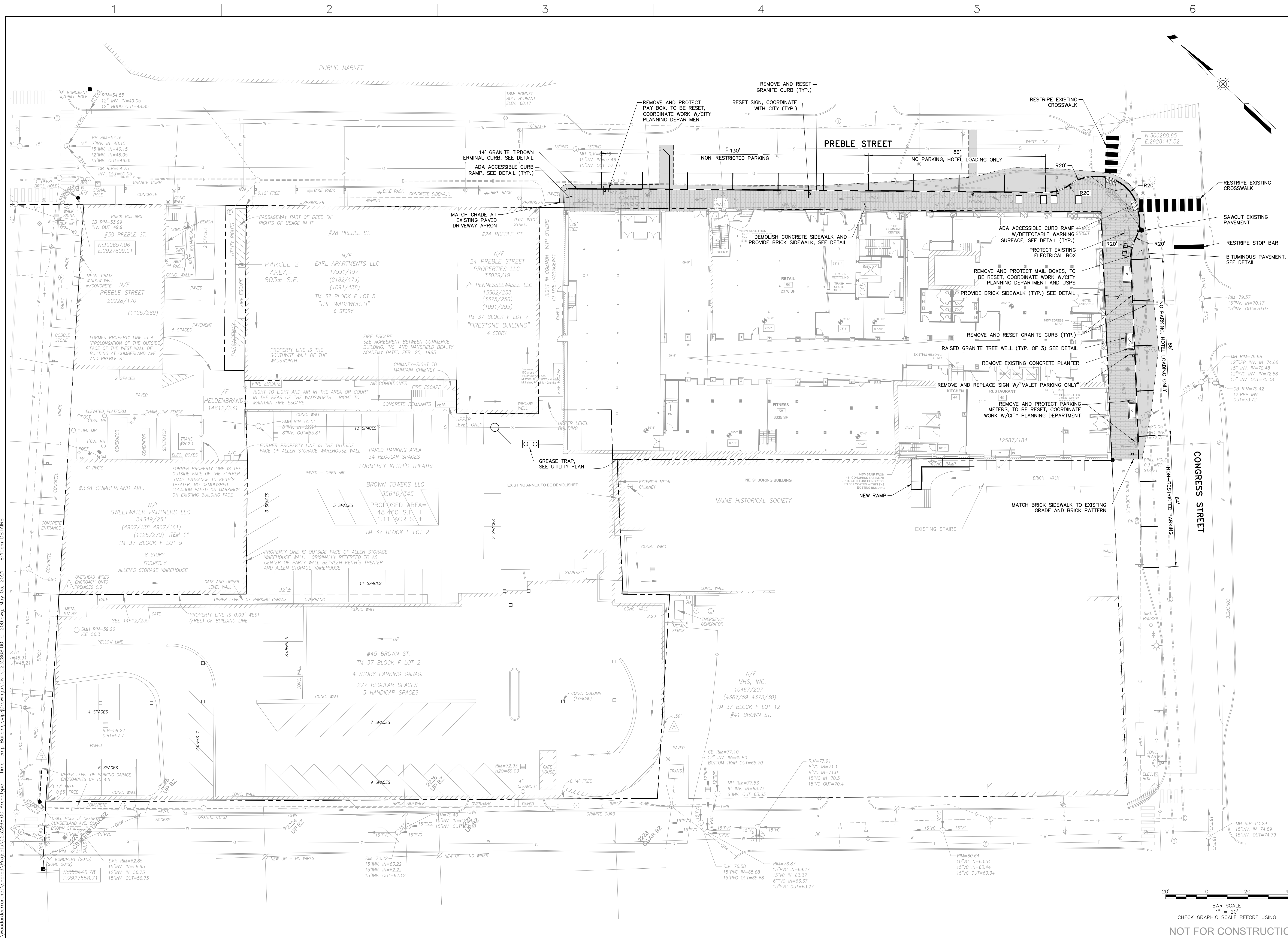
OVERALL SITE PLAN

477 CONGRESS HOTEL
PORTLAND, MAINE

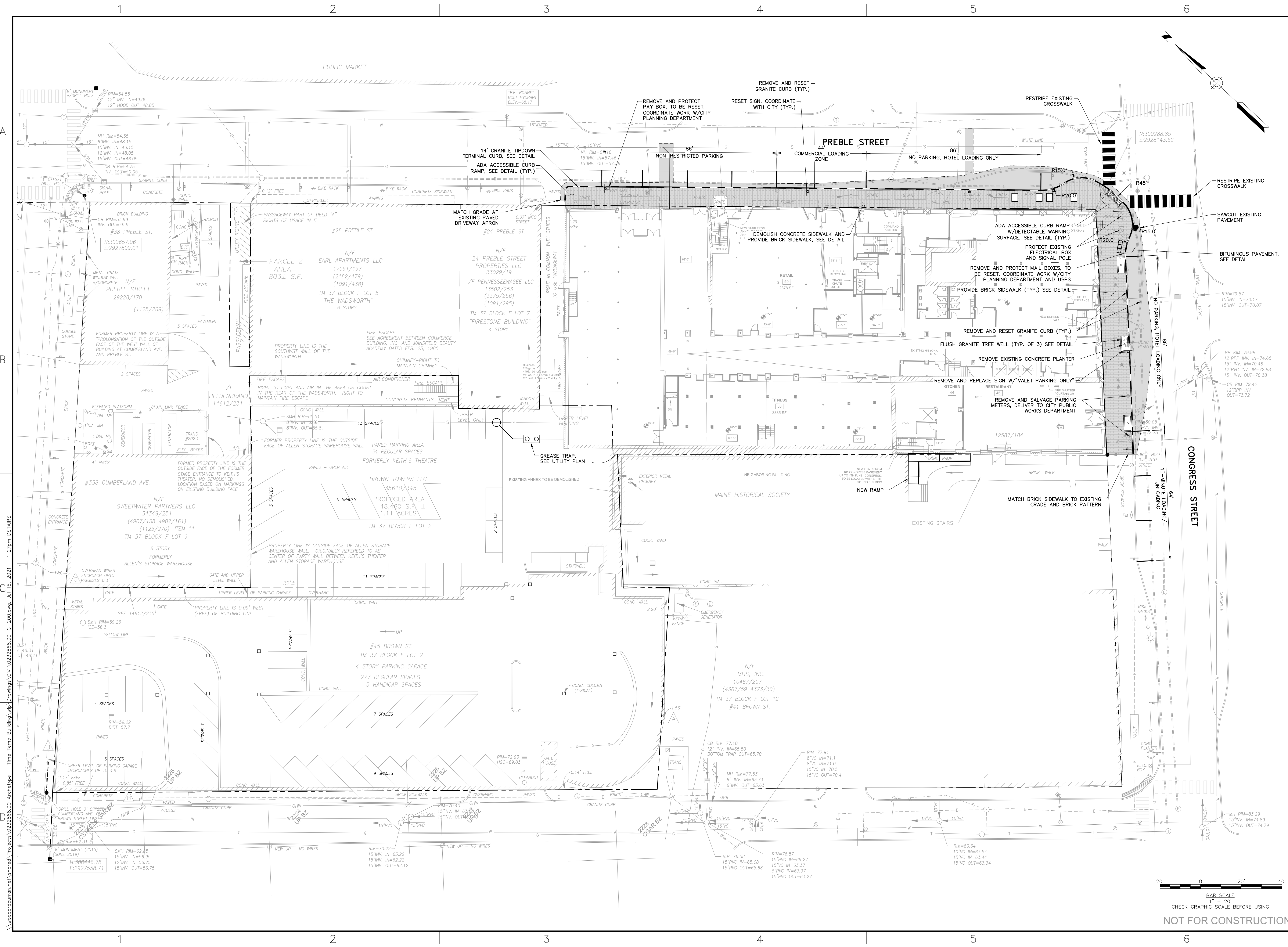
TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232868.00
DATE: APRIL 2021
SCALE: 1" = 20'
SHEET: 2 OF 7

C-200



woodardcurran.com\shared\Projects\0232868.00 - C-200.dwg, May 03, 2021 - 8:10am, DSTARTS



41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

REV	DESCRIPTION	DATE
1	RESPONSE TO CITY COMMENTS	07/16/21

DESIGNED BY: ANL
DRAWN BY: JEC
CHECKED BY: DBS
DATE: 02/28/2021

OVERALL SITE PLAN

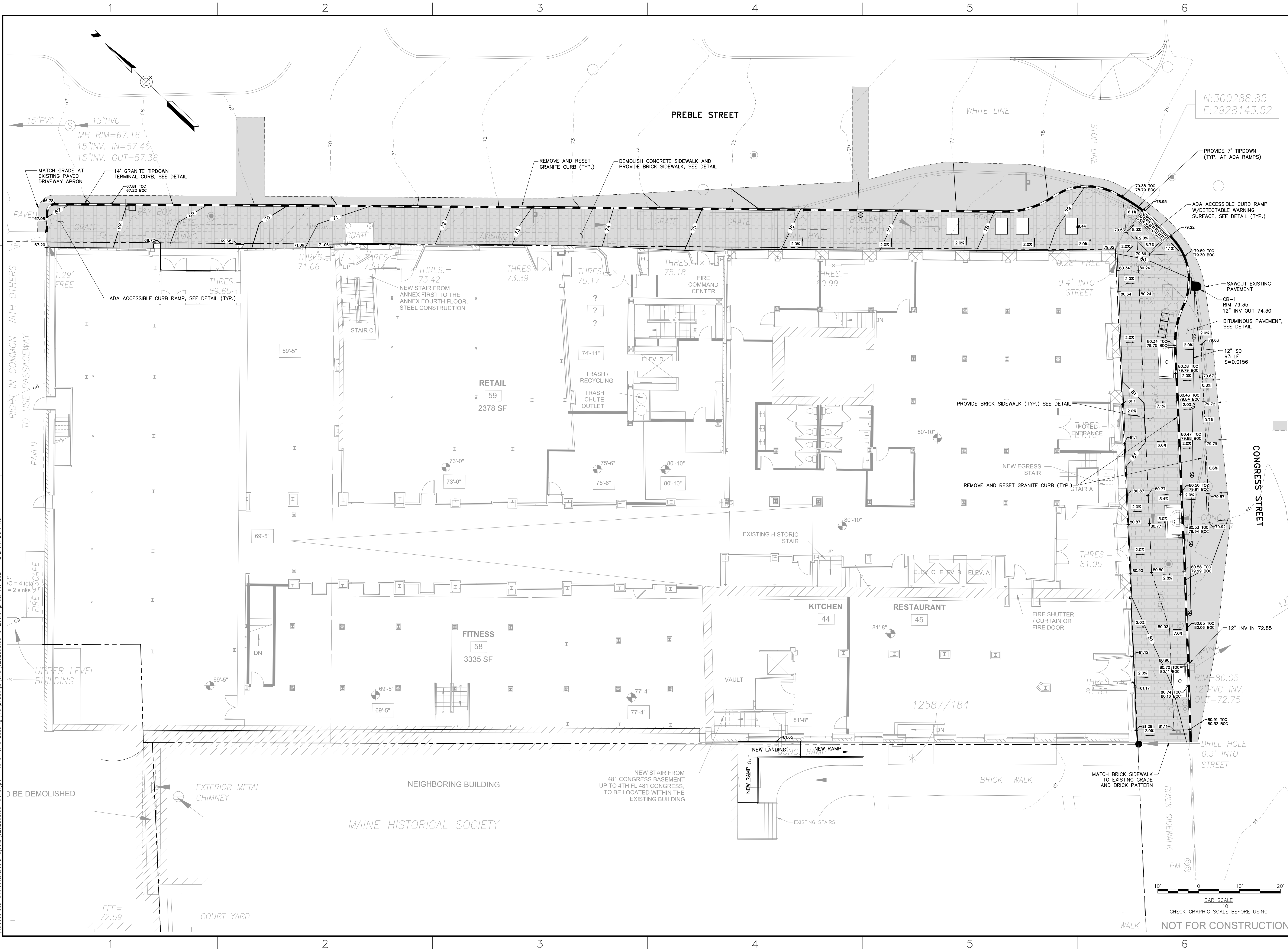
477 CONGRESS HOTEL
PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232868.00
DATE: APRIL 2021
SCALE: 1" = 20'
SHEET: 2 OF 7

C-200

\\woodardcurran.net\shared\Projects\0232868.00-Archetype - Time Temp Building\Drawings\Civil\0232868.00-C-200.dwg, Jul 15, 2021 - 1:27pm DSTAHS



41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

WOODARD & CURRAN

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR DISTRIBUTION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

REV	RESPONSE TO COMMENTS	DATE
1	RESPONSE TO COMMENTS	07/16/21

DESIGNED BY: ANL
DRAWN BY: JEC
CHECKED BY: DBS
0228268.00-C-200.4eq

GRADING AND DRAINAGE PLAN

477 CONGRESS HOTEL
PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232668.00
DATE: APRIL 2021
SCALE: 1" = 10'
SHEET: 3 OF 7

C-201



N.T.S

1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MAINE D.O.T. CLASS A STRUCTURAL CONCRETE. MINIMUM CURB STRENGTH 4,000 PSI. THE EXPOSED SURFACE OF THE DETECTABLE WARNING PLATE SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOWNS SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE PLATE WIDTH SHALL EXTEND THE WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED IN THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



N.T.S.

NOTE: AGGREGATE TYPES PER MDOT SECTION 304.02



CURB TYPE 1 ON CURVES			
TYPE	RADIUS OF CURVE	LENGTH	STONE IS CUT OR CAST
1	0' TO 60' INCL.	4' MIN.	ARC TO FIT CURVE
	OVER 60' TO 160'	4' TO 6'	STRAIGHT PIECES

N.T.S.

NOTE: AGGREGATE TYPES PER MDOT SECTION 304.02



1. SEE LANDSCAPE PLANS FOR GRANITE PAVER SECTIONS.
2. PROVIDE MIN. 48" OF STRUCTURAL FILL BENEATH ANY BRICK SIDEWALK SECTION WITHIN 6 FEET OF AN EXTERIOR DOOR, ALL DIRECTIONS.
3. PROVIDE MIN. 48" OF STRUCTURAL FILL BENEATH ANY BRICK SIDEWALK SECTION WITHIN 6 FEET OF AN EXTERIOR DOOR, ALL DIRECTIONS.

N.T.S.



1. GRIND EXISTING PAVEMENT, 2" DEPTH.
2. PROVIDE BITUMINOUS TACK COAT ON VERTICAL AND HORIZONTAL SURFACES PRIOR TO PAVING.
3. DETAIL APPLICABLE TO PAVEMENT BUTT JOINTS AT ROADWAY WORK LIMITS. REFER TO PIPE INSTALLATION DTL. OR PAVED ROAD SECTION DTLs. FOR TRENCH REPAIR REQUIREMENTS.

N.T.S.

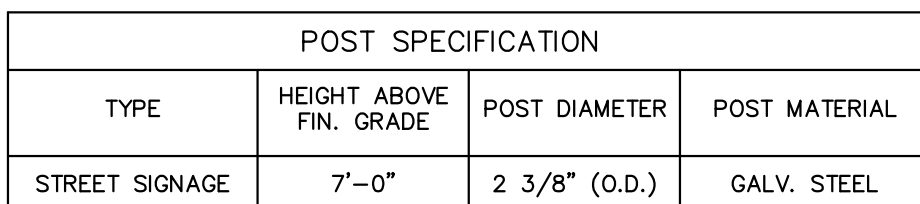


- NOTES:
1. GREASE TRAP SHALL BE GGI-2000 MODEL BY SCHIER, OR APPROVED EQUAL.
 2. GREASE TRAP SHALL BE PROVIDED WITH RISERS AS NECESSARY TO ACCOMMODATE DEFINED INVERTS.
 3. GREASE TRAP AND ASSOCIATED COVERS AND RISERS SHALL BE PROVIDED FOR H-20 LOADING.

N.T.S.



N.T.S



POST SPECIFICATION			
TYPE	HEIGHT ABOVE FIN. GRADE	POST DIAMETER	POST MATERIAL
STREET SIGNAGE	7'-0"	2 3/8" (O.D.)	GALV. STEEL

N.T.S.



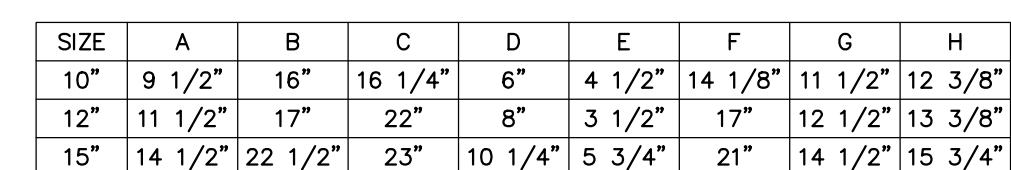
ANY ALTERNATE TRENCHING SHALL BE APPROVED IN ADVANCE
BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.

N.T.S.



1. GRIND EXISTING PAVEMENT, 2" DEPTH.
2. PROVIDE BITUMINOUS TACK COAT ON VERTICAL AND HORIZONTAL SURFACES PRIOR TO PAVING.
3. DETAIL APPLICABLE TO PAVEMENT BUTT JOINTS AT ROADWAY WORK LIMITS. REFER TO PIPE INSTALLATION DTL. OR PAVED ROAD SECTION DTLs. FOR TRENCH REPAIR REQUIREMENTS.

N.T.S.



N.T.S

- NOTE:
1. CASCO TRAP SHALL BE CAST IRON CASCO TRAP BY ETHERIDGE FOUNDRY OR APPROVED EQUAL.
 2. BOLT AND NUT REQUIRED WHERE HOOD WILL NOT OPEN COMPLETELY.
 3. CASCO TRAP SHALL BE INSTALLED ON ALL CATCH BASIN OUTLET PIPES, INCIDENTAL TO COST OF CATCH BASIN



N.T.S



N.T.S.

1. ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
3. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
4. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48--CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF RED PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
5. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
6. CONTRACTOR SHALL SUBMIT ANTIFLOATATION CALCULATIONS FOR ALL MANHOLE AND CATCH BASIN STRUCTURES.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION, OFFSET, AND STRUCTURE ID PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED PILE HOLE.
9. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. WHEN THE FLOW CHANGES DIRECTION IN A MANHOLE, THE CHANNEL ALIGNMENT SHALL FOLLOW A SMOOTH RADIUS. CHANNELS SHALL BE FORMED TO ACCEPT ALL INLET PIPES.
11. ON STORM AND SEWER MANHOLES, THE SHELVE AND CHANNEL SHALL BE FORMED BY BRICK SET IN CEMENT MORTAR OR BY FACTORY PRE-CAST CONCRETE. THE SHELVE PRE-CAST CONCRETE SHALL BE EPOXY GROUTED TO THE SHELVE SHALL HAVE A PERMANENT NON-SKID SURFACE.

EROSION AND SEDIMENT CONTROL NOTES

Temporary Erosion Control

Contractor shall prepare and submit a soil erosion and water pollution control plan to engineer

Measure	Dates For Use	Timing, Activity, and Location
Sedimentation Barrier	ALL	Before soil disturbance, install downhill of areas to be disturbed and around material stockpiles.
Up-slope Diversion	ALL	Before soil disturbance, install uphill of areas to be disturbed and material stockpiles.
Catch Basin Protection	ALL	Before soil or pavement disturbance, install ACF Environmental, Inc. High Flow Siltsack, Siltsaver Inlet Filter. or equal, installed per manufacturer's requirements.
Dust Control	ALL	During dry weather, apply water and calcium chloride to control dust.
Temporary Seeding	April 15 to Oct. 1	Soil stockpiles that are not covered and disturbed areas that will not be disturbed again within 14 days. If grass growth provides less than 95% soil coverage by Nov. 1, apply mulch and anchor with erosion control blanket.
Mulch	April 15 to Sept. 15	On all areas of exposed soil prior to rain events or every 7 days, apply 100-150 lbs (2.5 bales) per 1,000 sq ft. by mechanical blower.
Winter Mulch	Sept. 16 to Oct. 31 Nov. 1 to April 14	On all areas of exposed soil prior to precipitation or every 7 days, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. by mechanical blower. Erosion control blanket may be used as a substitute for winter mulch. On all areas of exposed soil, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. and anchor with netting at the end of each working day. Erosion control blanket may be used as a substitute for winter mulch.
Inspections	Until site is permanently stabilized	Inspect the erosion and sedimentation control measures per inspections table below, and maintain and repair as necessary.

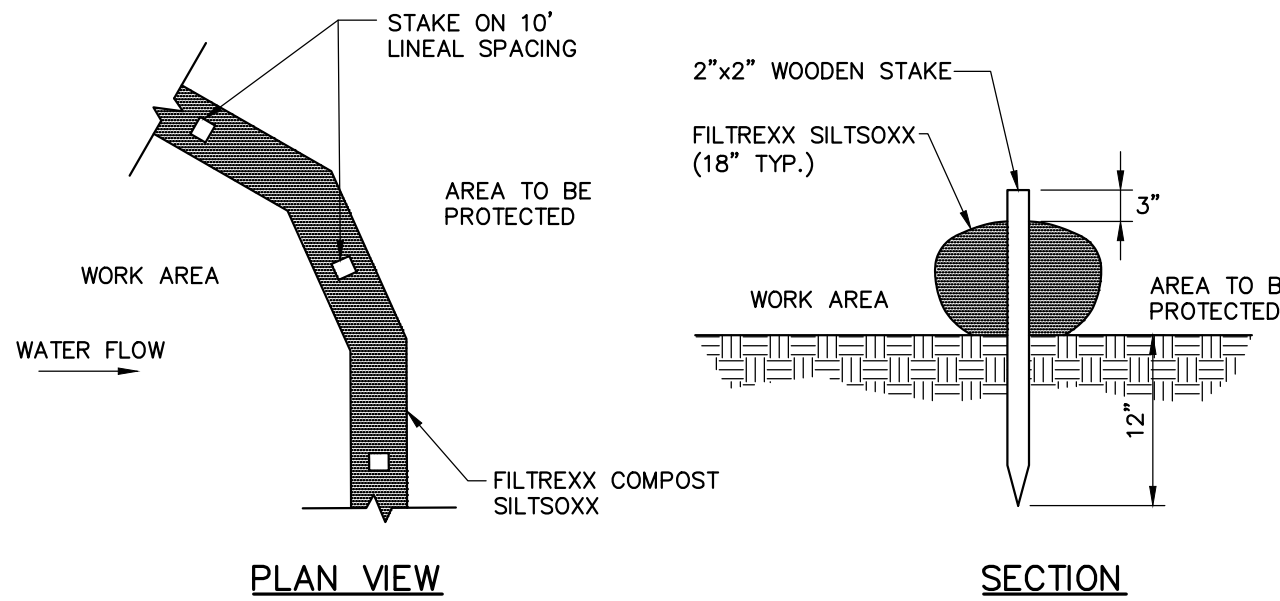
Permanent Erosion Control:

Measure	Dates For Use	Timing, Activity, and Location
Pavement - Base Course - Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after pavement base is brought to final grade. Install near completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

Inspections:

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of rivulets.
Sediment Barrier	Sediment build-up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.
Catch Basin Protection	Sediment build-up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.
Dewatering Filter	Breaks in fabric or supporting structure. Slow flow, indicating high sediment build-up.
Construction Entrance	Sedimentation of roadways. Off-site dust complaints.

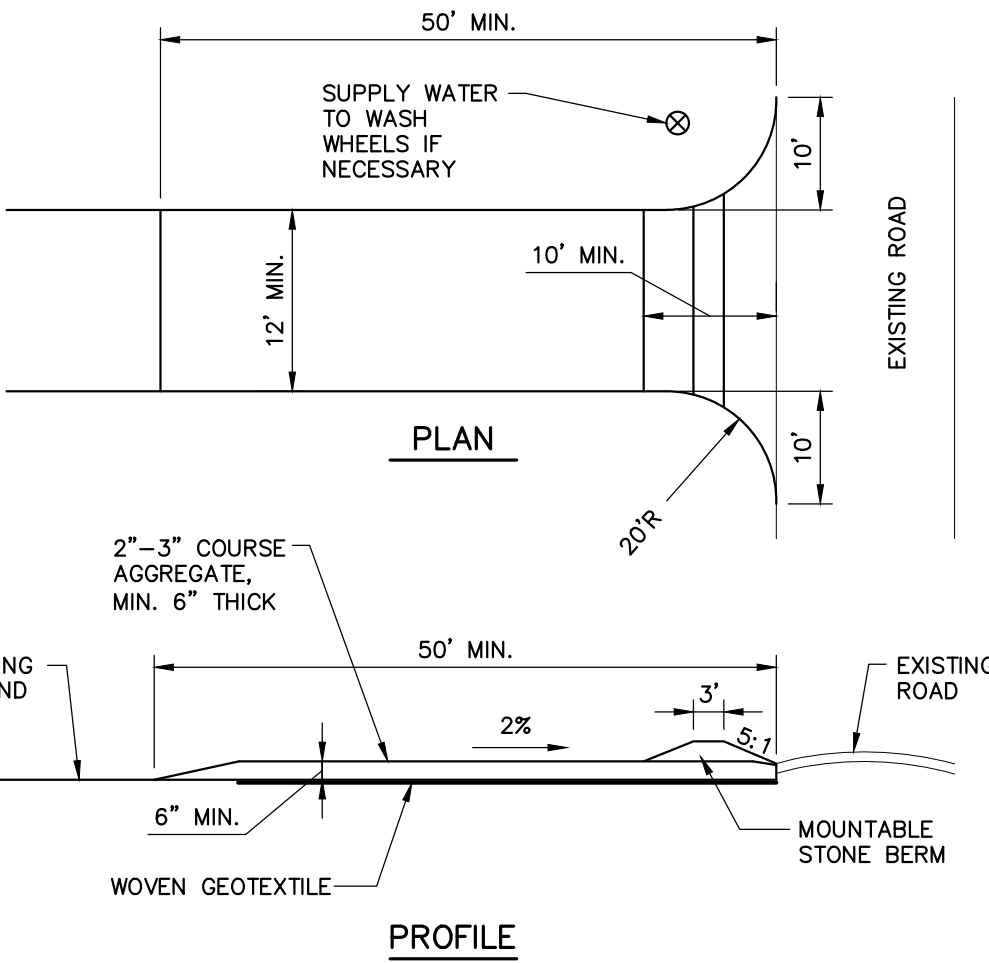


NOTE:

WHEN STAKING IS NOT POSSIBLE, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.

SEDIMENTATION BARRIER - SILTSOXX

N.T.S.



NOTES:

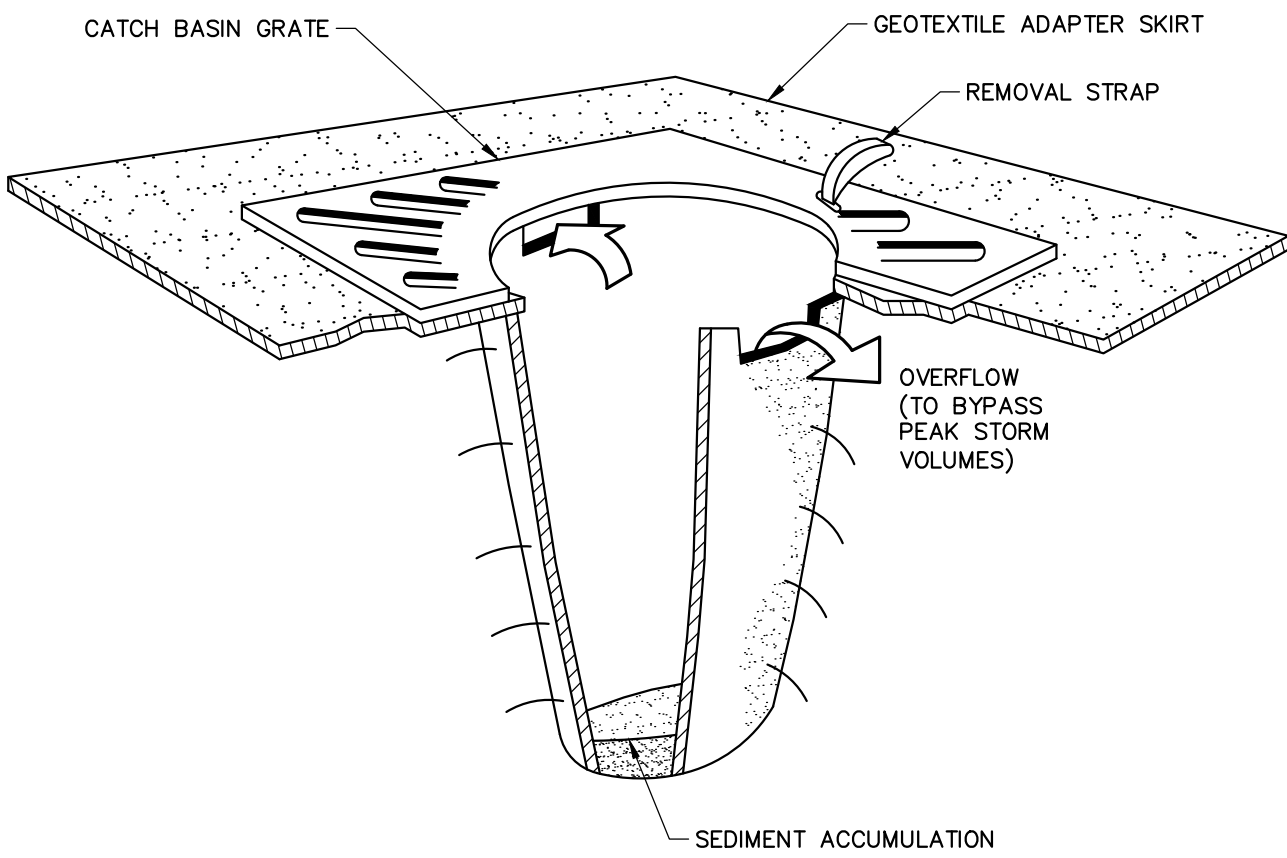
- CONSTRUCTION ENTRANCES MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- WHEEL WASH PITS MAY ALSO BE USED, IF APPROVED.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN

MAINTENANCE: INSPECT FOR EFFECTIVE REMOVAL OF SOIL FROM VEHICLES PRIOR TO LEAVING THE SITE. SWEEP ANY SOIL FROM ADJACENT ROADWAYS.

REMOVAL: AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL ALL AREAS OF THE SITE ARE STABILIZED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

N.T.S.



NOTES:

CATCH BASIN PROTECTION TO BE "SILTSACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES).

INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/2 FULL OF SEDIMENT.

INSPECT INSURE AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

TEMPORARY INLET PROTECTION

N.T.S.

EROSION AND SEDIMENTATION CONTROL NOTES

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERMS, PLUNGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCHBASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMDRAIN AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

GENERAL

- THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE MAINE CONSTRUCTION GENERAL PERMIT, IF APPLICABLE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS.
- ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
- THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.
- CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
 - FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNIFORM STAND OF PERMANENT GRASS SPECIES, FREE FROM SIZEABLE THIN OR BARE SPOTS.
 - FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE OFF.
 - FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
 - FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
 - FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
 - FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE, PERMANENT STABILIZATION MEANS THE CHANNELIZED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.
- IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOD OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED, OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3" OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.

- PERMANENT SEEDING SPECIFICATION: IT IS RECOMMENDED THAT PERMANENT SEEDING BE COMPLETED BETWEEN APRIL 1 AND AUGUST 15 OF EACH YEAR. LATE SEASON SEEDING MAY BE DONE BETWEEN AUGUST 15 AND SEPTEMBER 15. AREAS NOT SEEDDED OR WHICH DO NOT OBTAIN A SATISFACTORY GROWTH BY OCTOBER 1 SHALL BE SEEDDED WITH AROOSTOCK WINTER RYE OR MULCHED AT SPECIFIED RATES. SEE WINTER SEEDING AND MULCHING SPECIFICATIONS FOR STABILIZATION AFTER NOVEMBER 1.
 - APPLY TOPSOIL TO A DEPTH OF 4 INCHES. IN COMPACTED AREAS TILL 2-3" OF COMPOST INTO UPPER 8" OF DISTURBED SOIL AND THEN APPLY 4 INCHES OF TOPSOIL.
 - APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TESTS, APPLY GROUND LIMESTONE AT A RATE OF 33 LBS PER 1000 SQUARE FEET AND GRANULAR, COMMERCIAL-GRADE FERTILIZER 10-10-10 AT A RATE OF 18 LBS PER 1000 SQUARE FEET.
 - UNIFORMLY APPLY SEED MIXTURE AT THE RECOMMENDED SEEDING RATES AND DATES, APPLY HAY OR STRAW MULCH AT A RATE OF 2.5 BALES PER 1000 SQUARE FEET AND ANCHOR AS NECESSARY.
- PROTECT ALL SEEDED AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING OR SODDING TO AVOID FAILURE DUE TO SUMMER DROUGHT AND FALL FROST. NEWLY SEEDED AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REMOVED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.
- DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GRASS S1500B OR APPROVED EQUAL. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.

WINTER CONDITIONS

- WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 1. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.

GOOD HOUSEKEEPING AND POLLUTION PREVENTION

- SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.
- DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL, DIKES, BERMS, Sumps AND OTHER FORMS OF TEMPORARY SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
- LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.
- LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNED CONSTRUCTION DEWATERING DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK.
- SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEEPED FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.

INSPECTION AND MAINTENANCE

- A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, INCLUDING THE STANDARDS IN THE MAINE CONSTRUCTION GENERAL PERMIT, THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK OR ANY MUNICIPAL REQUIREMENTS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF ADDITIONAL BMPs OR MODIFICATIONS TO BMPs ARE NECESSARY, THE MODIFICATIONS MUST BE IMPLEMENTED WITH 7 CALENDAR DAYS OR PRIOR TO ANY PRECIPITATION EVENT. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT BY THE CONTRACTOR, SUMMARIZING THE SCOPE OF THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO THE OPERATION OF EROSION AND SEDIMENT CONTROL BMPs, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE CONSTRUCTION AREA. THE INSPECTION LOG SHOULD BE DELIVERED TO THE PROPERTY OWNER OR RESPONSIBLE CONTRACTING ENTITY UPON COMPLETION OF THE PROJECT.

DEWATERING

- ANY DEWATERING FLOW DIRECTED TO THE CITY'S COMBINED SEWER SYSTEM SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICES AND/OR THE PORTLAND WATER DISTRICT PRIOR TO COMMENCING DEWATERING ACTIVITIES.

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

**WOODARD
& CURRAN**

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR DISTRIBUTION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

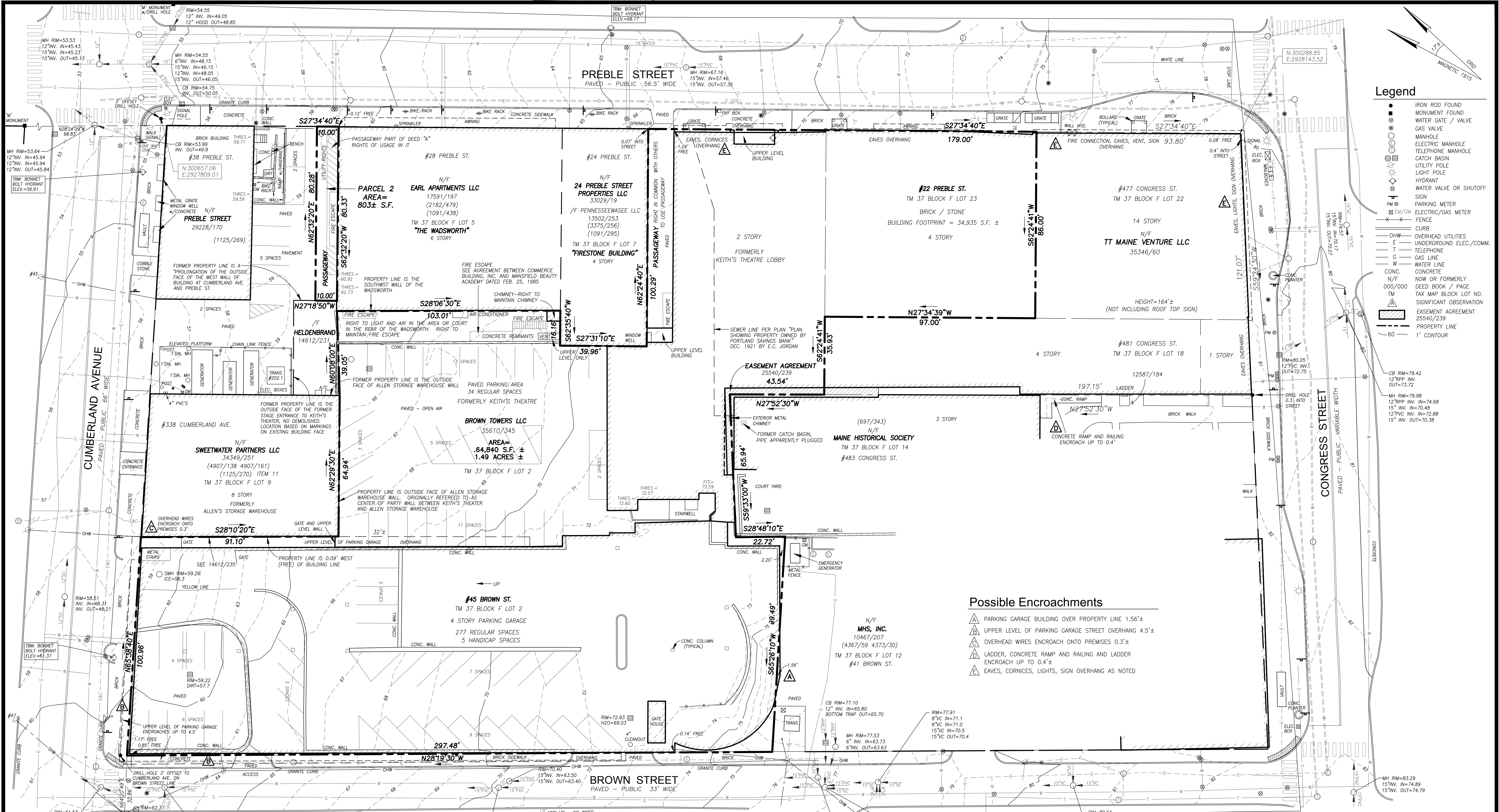
COMMITMENT & INTEGRITY DRIVE RESULTS

477 CONGRESS HOTEL
PORTLAND, MAINE

TT MAINE VENTURE, LLC
3100 MCKINNON STREET, SUITE 250
DALLAS, TX 75201

JOB NO.: 0232868.00
DATE: APRIL 2021
SCALE: AS NOTED
SHEET: 7 OF 7

C-302



- Legend**
- IRON ROD FOUND
 - MONUMENT FOUND
 - WATER GATE / VALVE
 - GAS VALVE
 - MANHOLE
 - ELECTRIC MANHOLE
 - TELEPHONE MANHOLE
 - CATCH BASIN
 - UTILITY POLE
 - LIGHT POLE
 - HYDRANT
 - WATER VALVE OR SHUTOFF
 - SIGN
 - PARKING METER
 - ELECTRIC/GAS METER
 - FENCE
 - CURB
 - OVERHEAD UTILITIES
 - UNDERGROUND ELEC./COMM.
 - TELEPHONE
 - GAS LINE
 - WATER LINE
 - CONC.
 - N/F
 - DEED BOOK / PAGE
 - TAX MAP BLOCK LOT NO.
 - SIGNIFICANT OBSERVATION
 - EASEMENT AGREEMENT
 - 25540/239
 - PROPERTY LINE
 - 1' CONTOUR

- Possible Encroachments**
- PARKING GARAGE BUILDING OVER PROPERTY LINE 1.56'±
 - UPPER LEVEL OF PARKING GARAGE STREET OVERHANG 4.5'±
 - OVERHEAD WIRES ENCR OACH ONTO PREMISES 0.3'±
 - LADDER, CONCRETE RAMP AND RAILING AND LADDER ENCR OACH UP TO 0.4'±
 - EAVES, CORNICES, LIGHTS, SIGN OVERHANG AS NOTED

General Notes

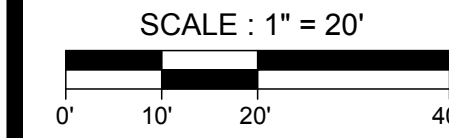
- OWNER OF RECORD: BROWN TOWERS, LLC, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 35610, PAGE 345.
- LOCUS IS SHOWN ON PORTLAND PROPERTY MAPS AS MAP 37 BLOCK F LOTS 2, 18, 22 & 23.
- ELEVATIONS ARE BASED ON OFFICIAL CITY OF PORTLAND BENCHMARK: L 757-34-112 "M" MONUMENT AT THE NORTHWESTERLY CORNER OF FOREST AVE. & CUMBERLAND AVE. ELEVATION = 80.66' (REF. CITY L.B. 725 PG. 99-100)
- THE PARKING GARAGE AND THE PAVED PARKING AREA HAVE A COMBINED TOTAL OF 311 REGULAR AND 5 HANDICAPPED DELINEATED PARKING SPACES.
- THE PROPERTY IS SERVICED BY VARIOUS UTILITIES THROUGH ADJACENT PUBLIC STREETS.
- PARTY WALL IN 1125/270 IS NOW ONLY WALL OF SWEETWATER PARTNERS LLC AND IS NOT A WALL FOR PREMISES BUILDING.
- STREET LINES ARE BASED ON PLAN REFERENCE 2 WHICH WAS BASED ON ADDITIONAL MONUMENTS ON CUMBERLAND AVENUE AND PREBLE STREET WHICH NO LONGER EXIST.
- SUBJECT PROPERTY HAS DIRECT ACCESS TO CUMBERLAND AVENUE, PREBLE STREET, AND BROWN STREET, PUBLIC RIGHTS OF WAY.
- BEARINGS ARE BASED ON MAGNETIC 1915 PER RECORD DEEDS AND PLANS. COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WET ZONE NAD 83 PER CITY CONTROL POINTS:

T124-11-1087
N: 300446.78
E: 2927558.71

T124-12-1096
N: 299813.92
E: 2928605.42

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 SURVEYOR HAS NOT PHYSICALLY LOCATED 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.



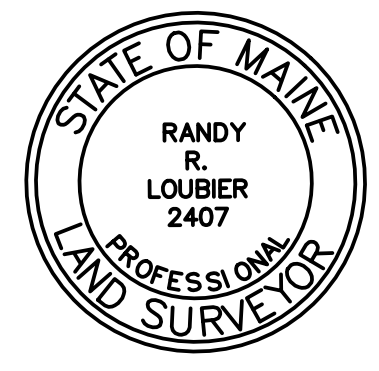
- Plan References**
- "ALTA/ACSM LAND TITLE SURVEY ON CUMBERLAND AVE., PREBLE ST., CONGRESS ST., & BROWN ST., PORTLAND, MAINE MADE FOR ISRAEL M. DOLGIN ASSOCIATES LLC" NOV. 13, 2006 BY OWEN HASKELL, INC.
 - "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MONUMENT SQUARE ASSOCIATES, INC. 20 APRIL 1983 H.I. & E.C. JORDAN-SURVEYORS"
 - "ALTA/ACSM LAND TITLE SURVEY, CWC2016 PROJECT, TIME & TEMPERATURE BUILDING AND MONUMENT SQUARE PARKING GARAGE, 477-481 CONGRESS STREET, 22 PREBLE STREET AND 45 BROWN STREET, PORTLAND, ME 04101" FOR BOCK & LCAK'S NATIONAL SURVEYORS NETWORK DATED MARCH 16, 2016 BY OWEN HASKELL, INC.
 - "ALTA/NSPS LAND TITLE SURVEY, TIME AND TEMPERATURE BUILDING, MONUMENT SQUARE PARKING GARAGE, 477-481 CONGRESS STREET, 22 PREBLE STREET, 45 BROWN STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR TT MAINE VENTURE, LLC" NOVEMBER 20, 2018 BY OWEN HASKELL, INC.

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.

01/09/2020
DATE

Randy R. Loubier
RANDY R. LOUBIER, PLS #2407

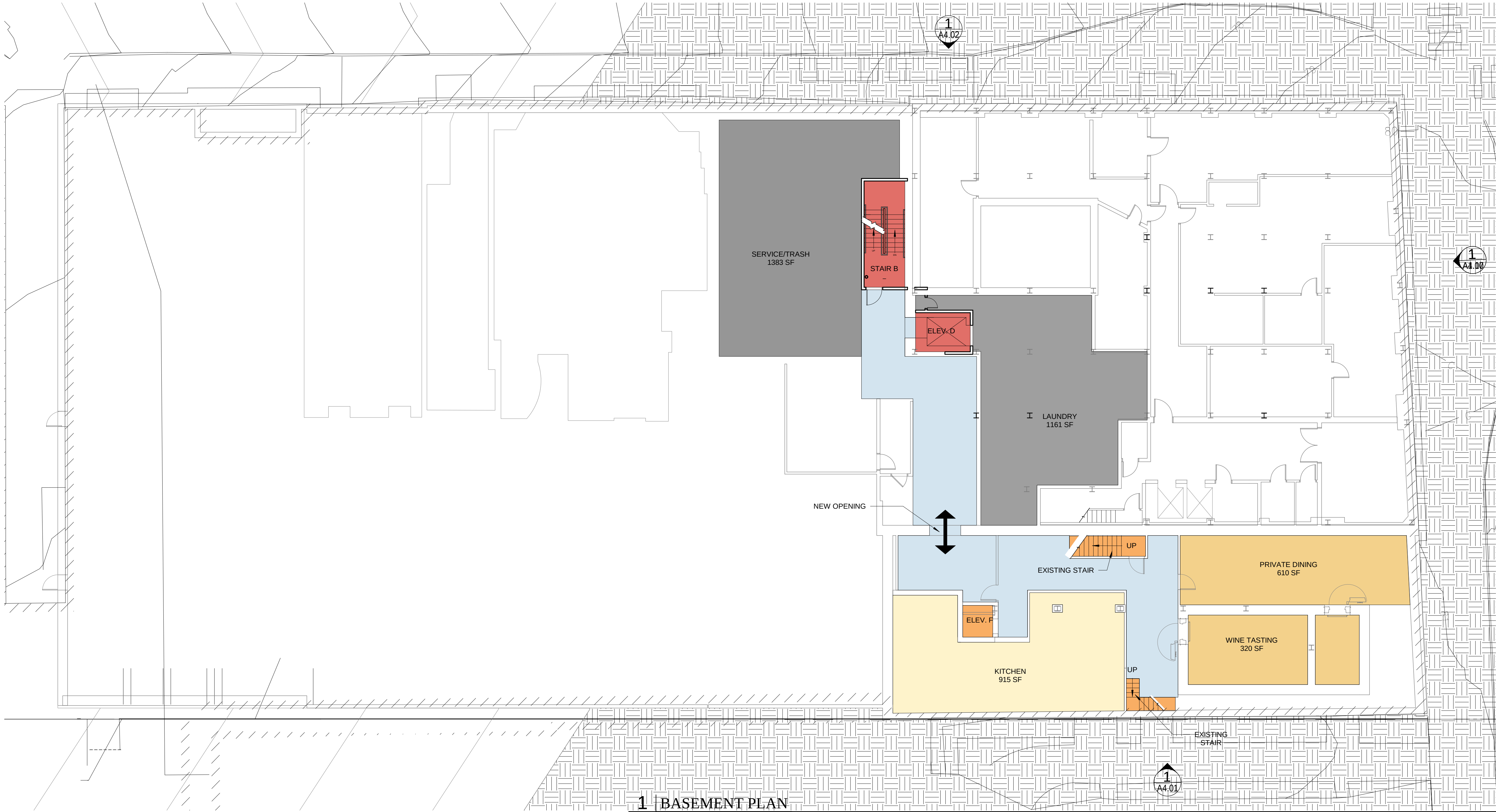


Boundary & Topographic Survey

Time and Temperature Building
Monument Square Parking Garage
477-481 Congress Street, 22 Preble Street,
45 Brown Street, Portland, Maine
Made For
45 Brown Street, LLC

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: RRL/JLW DATE: JAN. 9, 2020 JOB NO. 2019-348P
CHECKED BY: RRL SCALE: 1"=20' DRWG. NO. 1



1 BASEMENT PLAN

3/32" = 1'-0"

Date: 14 JAN. 2020

Revisions:

Project:

BASEMENT PLAN

477 CONGRESS HOTEL
477 Congress Street
Portland, Maine

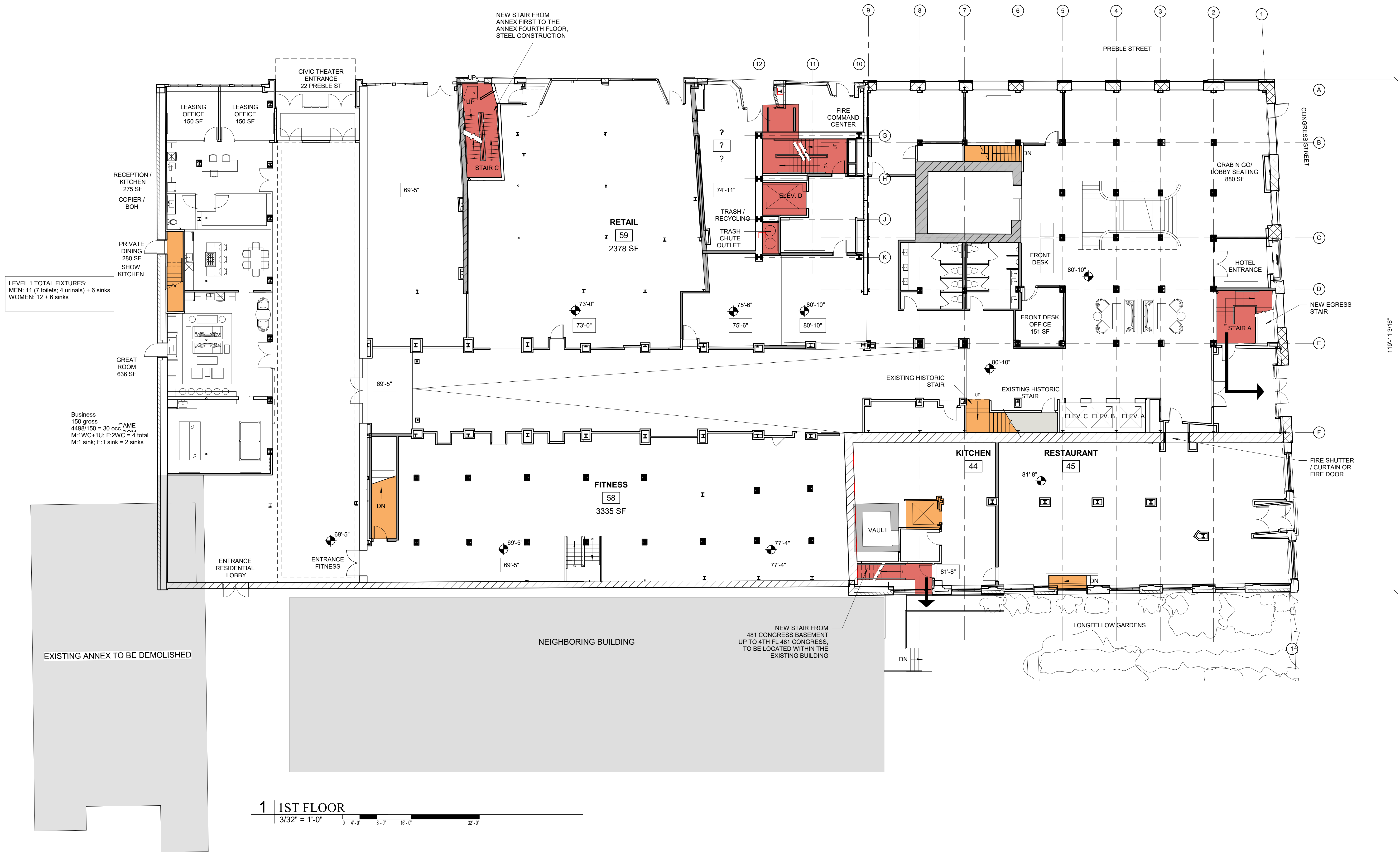
Architect: **ARCHETYPE ARCHITECTS**
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Consultant:

Prepared For:

HRI PROPERTIES
812 Gravier Street, Suite 200
New Orleans, LA 70112

A1.00



1 | 1ST FLOOR

3/32" = 1'-0" 0 4'-0" 8'-0" 16'-0" 32'-0"

Prepared For:
PRESIDIUM

Consultant:

Architect:
**ARCHETYPE
ARCHITECTS**

48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:
**TIME &
TEMPERATURE
HOTEL**

477 Congress Street
Portland, Maine

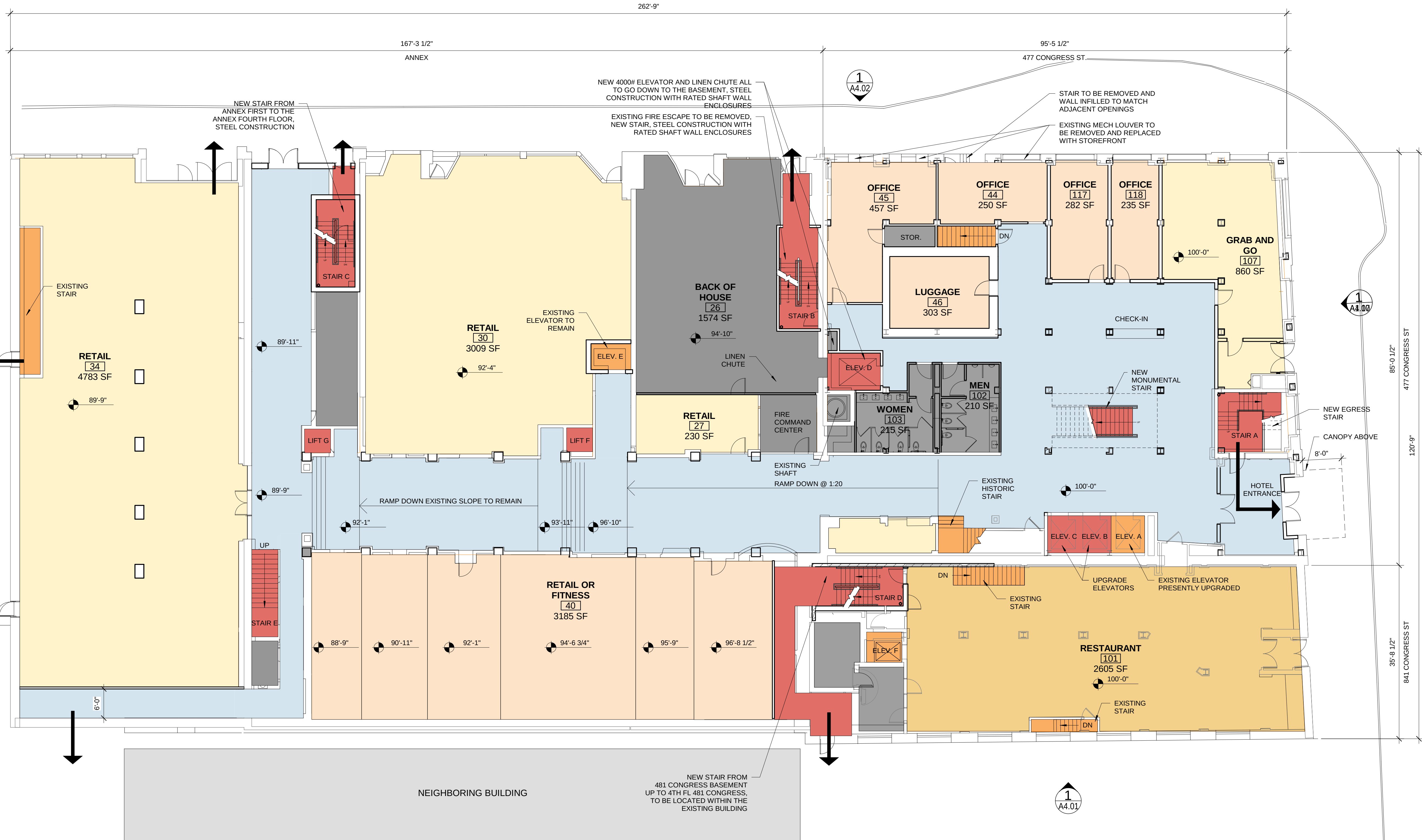
Revisions:

Scale:
3/32" = 1'-0"

Date:
16 APRIL, 2021

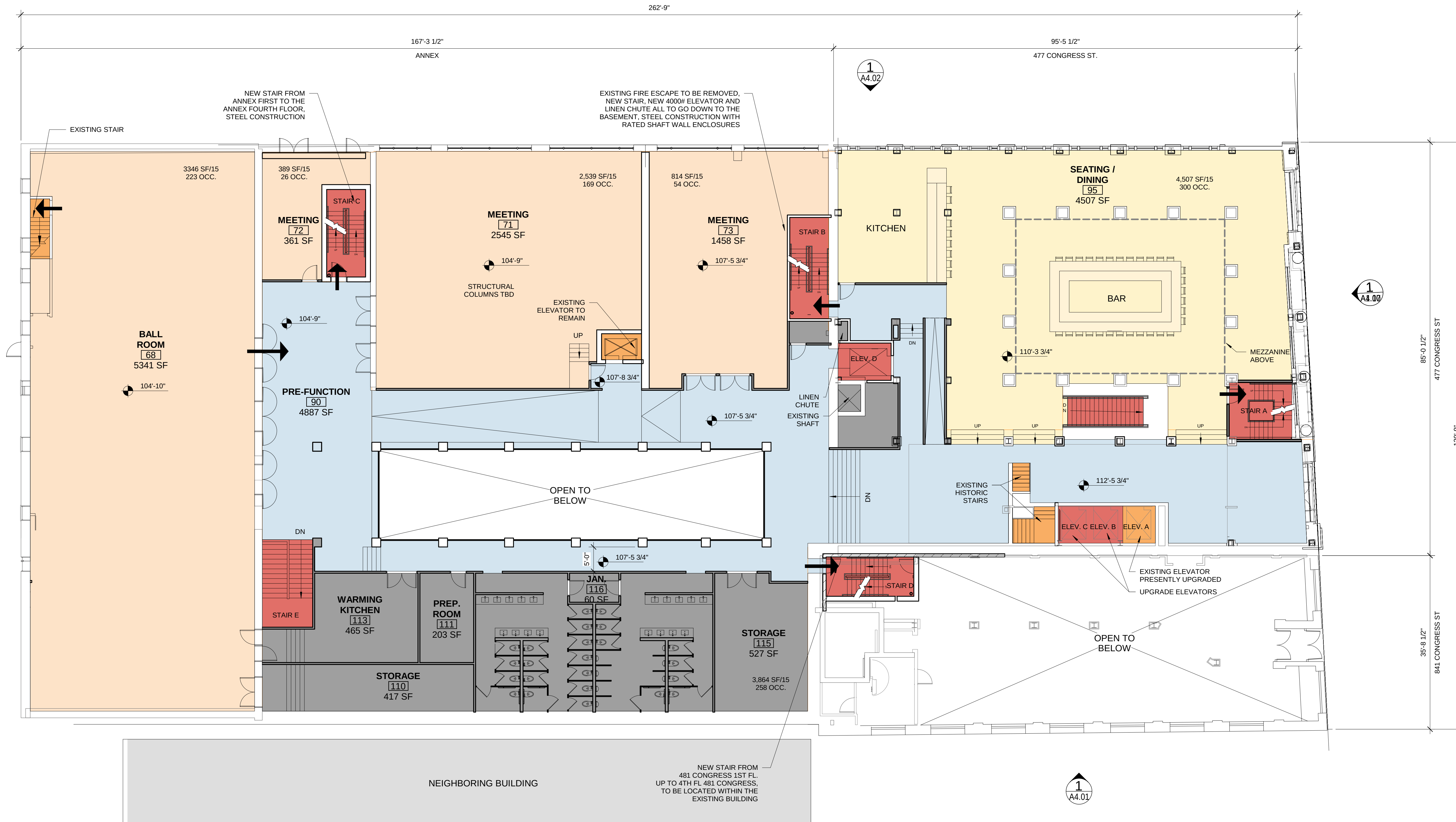
FIRST FLOOR PLAN

A1.01

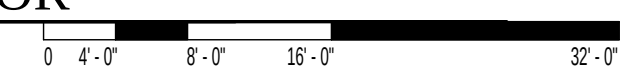


1 | 1ST FLOOR
3/32" = 1'-0"
0 4'-0" 8'-0" 16'-0" 32'-0"

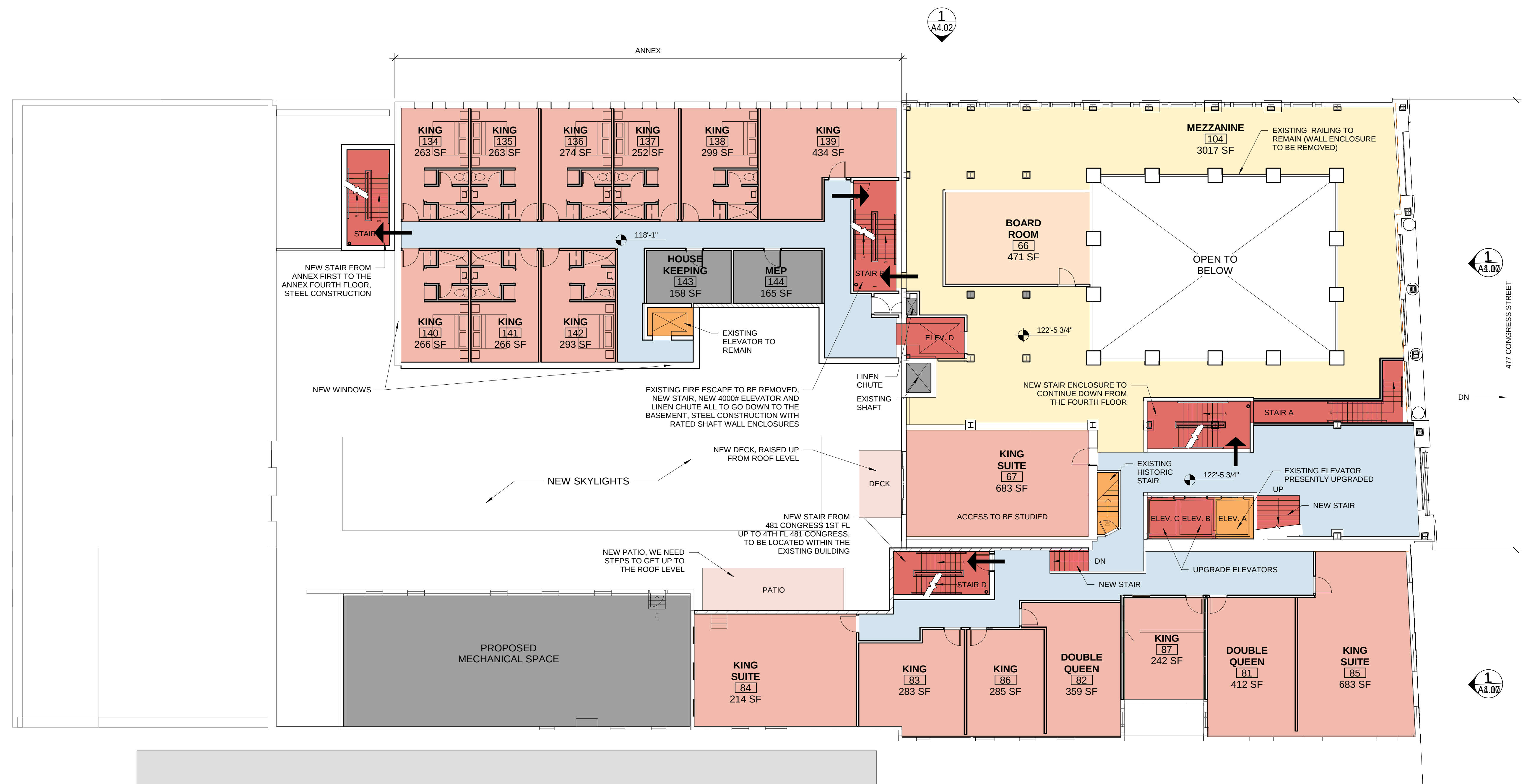
A1.01		Date: 14 JAN. 2020		Scale: 3/32" = 1'-0"	Revisions:		Project: 477 CONGRESS HOTEL		Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056		Consultant:		Prepared For: HRI PROPERTIES			
FIRST FLOOR PLAN					477 Congress Street Portland, Maine							812 Gravier Street, Suite 200 New Orleans, LA 70112				



1 | 2ND FLOOR
3/32" = 1'-0"



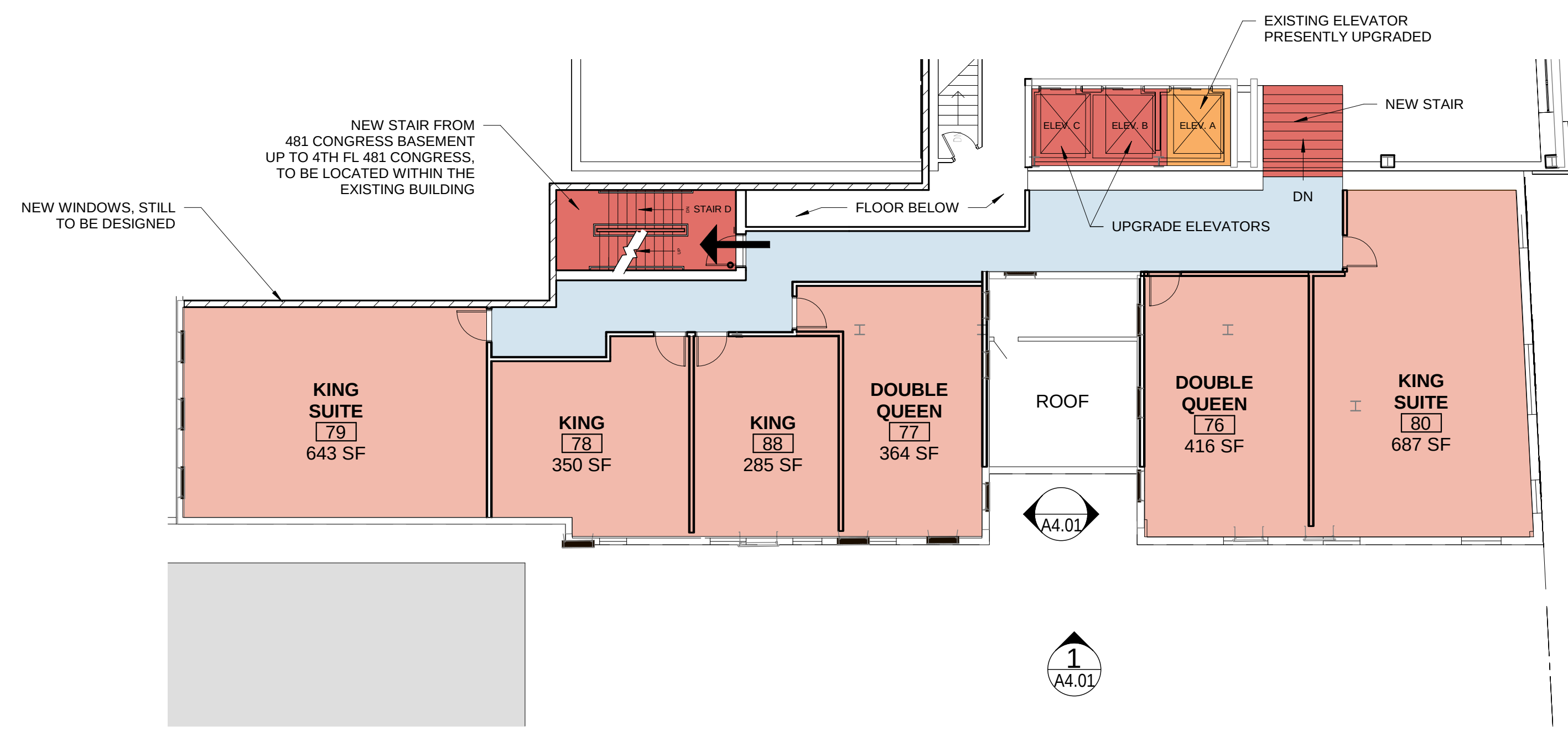
Date: 14 JAN. 2020		Scale: 3/32" = 1'-0"		Revisions:		Project: 477 CONGRESS HOTEL		Architect: ARCHETYPE ARCHITECTS		Consultant:		Prepared For: HRI PROPERTIES	
14 JAN. 2020		3/32" = 1'-0"				477 CONGRESS HOTEL		ARCHETYPE ARCHITECTS				HRI PROPERTIES	
SECOND FLOOR PLAN						477 Congress Street Portland, Maine		48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056				812 Gravier Street, Suite 200 New Orleans, LA 70112	
A1.02													



1 | 3RD FLOOR AND 2ND FL OF 481 CONGRESS

3/32" = 1'-0"

0 4'-0" 8'-0" 16'-0" 32'-0"



2 | 481 CONGRESS 3RD FLOOR

3/32" = 1'-0"

0 4'-0" 8'-0" 16'-0" 32'-0"

Prepared For:

HRI
PROPERTIES

812 Gravier Street, Suite 200
New Orleans, LA 70112

Consultant:

ARCHETYPE
ARCHITECTS

48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:

477 CONGRESS
HOTEL

477 Congress Street
Portland, Maine

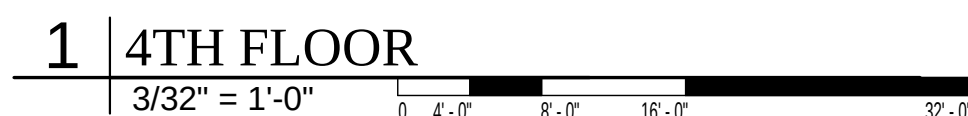
Revisions:

Date: 14 JAN. 2020

Scale: 3/32" = 1'-0"

THIRD FLOOR PLAN

A1.03





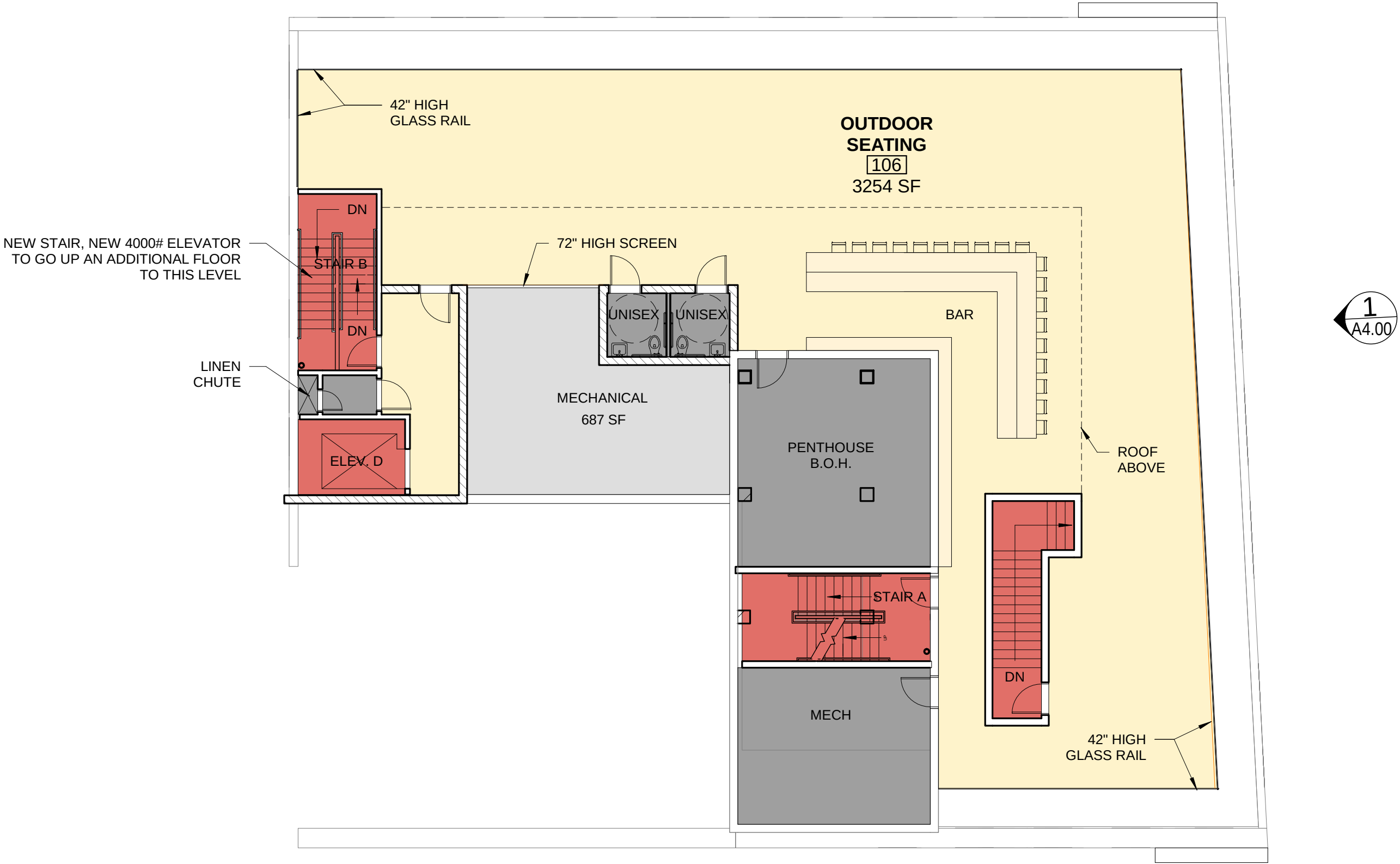
1 | 5TH - 13TH FLOOR
3/32" = 1'-0"

Date: 14 JAN. 2020		Scale: 3/32" = 1'-0"	Revisions:	Project: 477 CONGRESS HOTEL	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Prepared For:		
							HRI PROPERTIES		
FLOORS 5 - 13 PLAN		812 Gravier Street, Suite 200 New Orleans, LA 70112							
A1.05									

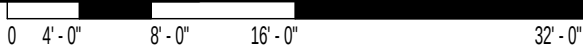


1 | 14TH FLOOR
3/32" = 1'-0"
0 4'-0" 8'-0" 16'-0" 32'-0"

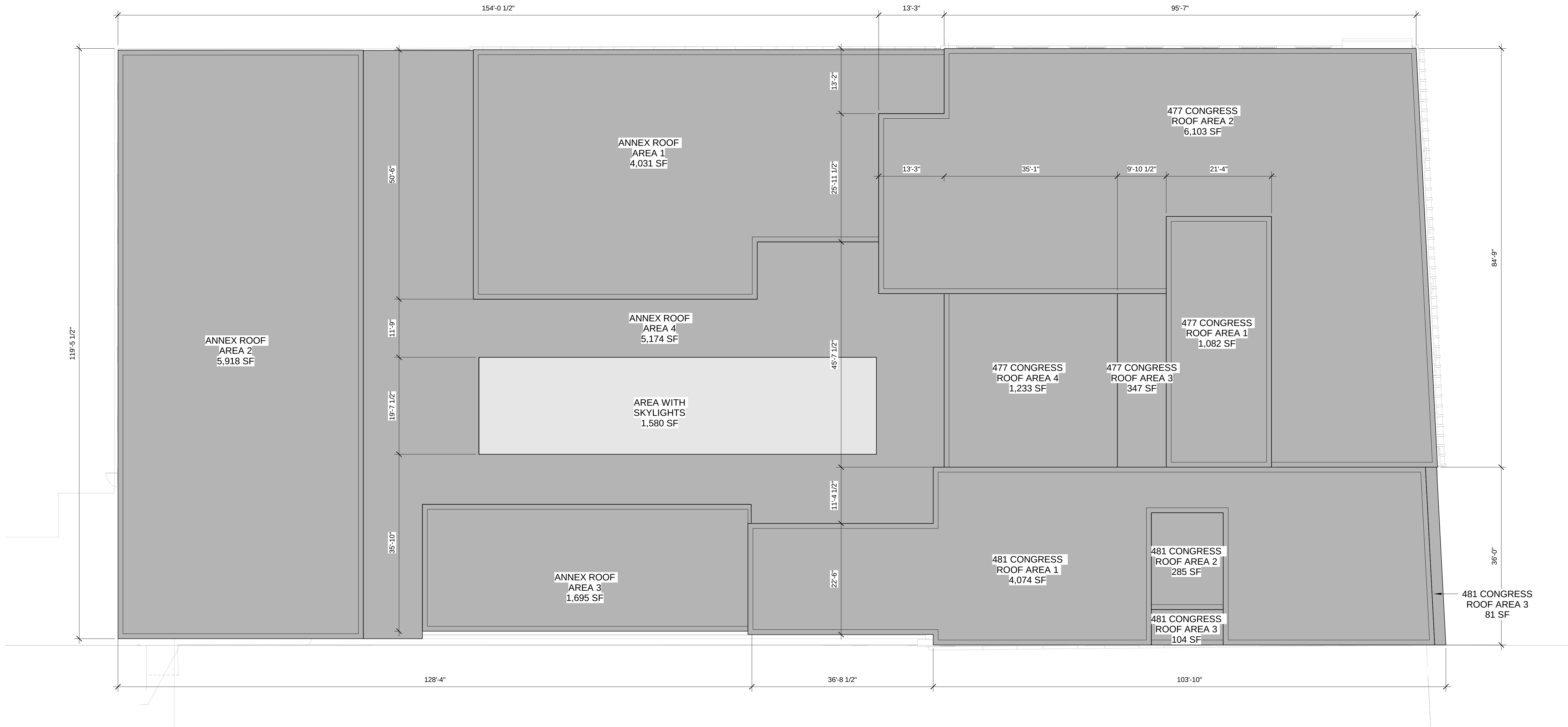
Date: 14 JAN. 2020		Scale: 3/32" = 1'-0"	Revisions:		Project: 477 CONGRESS HOTEL	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Prepared For: HRI PROPERTIES	
14TH FLOOR PLAN									
A1.14									



1 | ROOF TOP BAR PLAN - ADD ALT
3/32" = 1'-0"



Date: 14 JAN. 2020		Scale: 3/32" = 1'-0"	Revisions:	Project: 477 CONGRESS HOTEL	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Prepared For:		
							HRI PROPERTIES 812 Gravier Street, Suite 200 New Orleans, LA 70112		
ROOF TOP BAR PLAN									
A1.15									



1 | ROOF
3/32" = 1'-0"

30,127 SF OF NEW EPDM ON SLOPED POLY-ISO, R-20 MIN

A1.16		Date: 14 JAN. 2020		Scale: 3/32" = 1'-0"	Revisions:	Project: 477 CONGRESS HOTEL	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Prepared For: HRI PROPERTIES 812 Gravier Street, Suite 200 New Orleans, LA 70112		
		ROOF PLAN									

Preliminary General Notes:
1.Terracotta cladding is difficult to work with and expensive to replace. Skilled masons must be used to ensure existing pieces are protected and new work is placed properly. We recommend existing TC be sent to the two leading manufacturers for as soon as possible for replication ability in finish, and deliverable schedules.
2.All masonry joints in the tower Terracotta to be raked out and repointed with special attention given to window sills and decorative ornament.
3.A large portion of the brick masonry will need the mortar joints raked out and repointed.
4.Replace all EPDM roofs complete to deck.
5.Replace all windows allowing for work at each window for consolidation. Brick window sills and coursing under sills will need rebuild in most areas.
6.A large portion of the brick masonry directly below the EIFS overstory has been rebuilt, it appears there is a large portion of masonry that still needs to be rebuilt.
7.Wood storefronts should be replaced with Mahogany or similar wood and IGU windows.
8.All bricks coated with latex paint should have the paint removed and repainted after repairs with a mineral paint.
9.Structural Steel in a number of corner location is causing damage to the masonry, this will have to be addressed not only to preserve the masonry but to ensure structural stability of the building.
10.A number of steel window lintels are rust jacking these will need to be replaced.
11.Decorative Terracotta at the 11th floor has been strapped with steel to stop deterioration and stabilize the masonry. These elements should be repaired or replaced in a permanent fashion.

Based on all information gathered the existing membrane roof and insulation system should be stripped to the deck and replaced. New tie-ins and copings will also be required. External gutter and leader system will also need attention during this work.

Areas of masonry that have sky facing joints will need to be further explored. Sky facing joints should be raked out and re-pointed using backer rod and sanded sealant at the face.

We recommend all windows be replaced and window opening consolidation as well as sill rebuild be done. Also a number of brick faces have been lost on this face, this should be addressed with proper rebuild.

Based on all information gathered the existing membrane roof and insulation system should be stripped to the deck and replaced. New tie-ins and copings will also be required.

Based on all information gathered the existing membrane roof and insulation system should be stripped to the deck and replaced

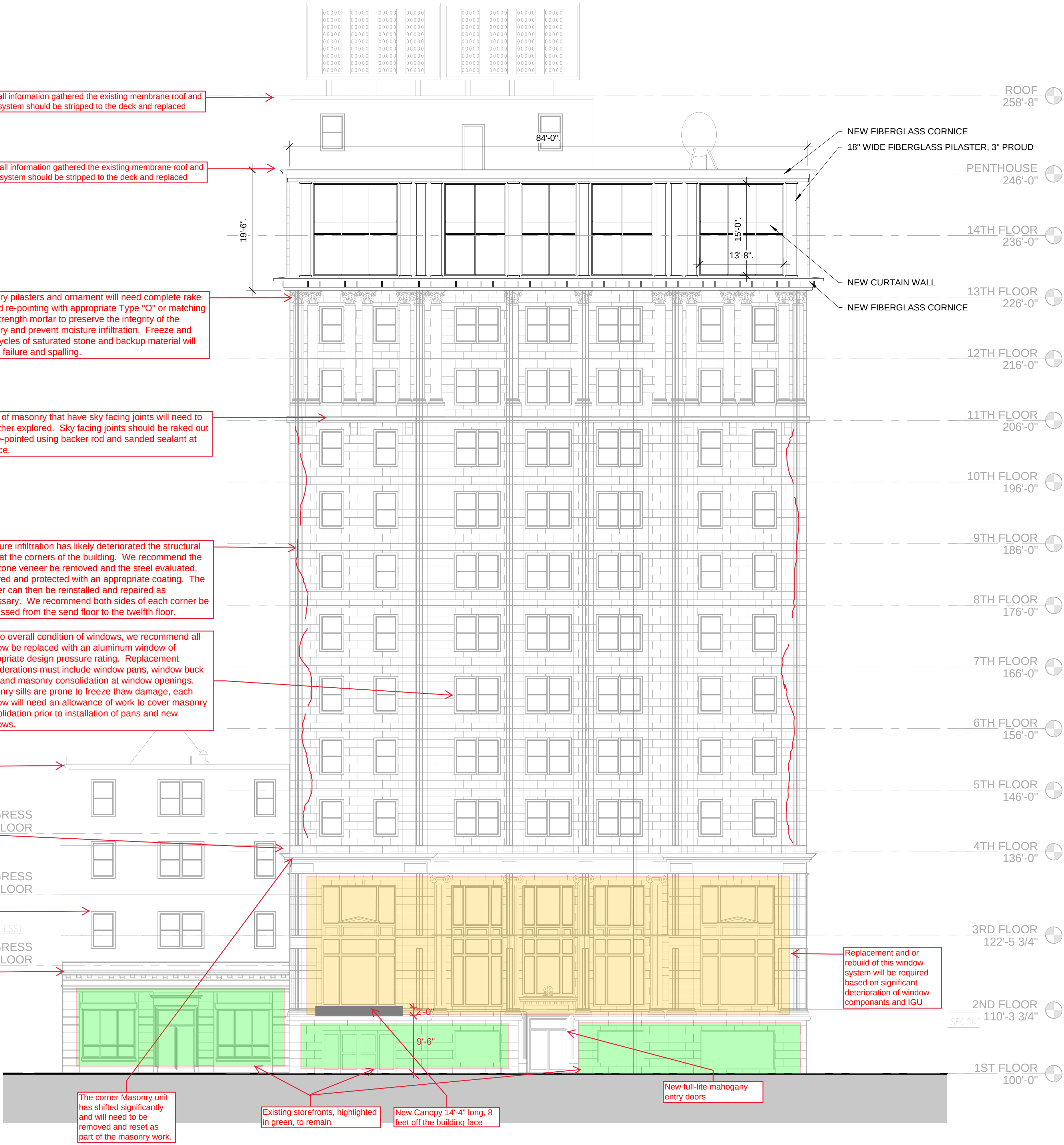
Based on all information gathered the existing membrane roof and insulation system should be stripped to the deck and replaced

Masonry pilasters and ornament will need complete rake out and re-pointing with appropriate Type "O" or matching yield strength mortar to preserve the integrity of the masonry and prevent moisture infiltration. Freeze and thaw cycles of saturated stone and backup material will lead to failure and spalling.

Areas of masonry that have sky facing joints will need to be further explored. Sky facing joints should be raked out and re-pointed using backer rod and sanded sealant at the face.

Moisture infiltration has likely deteriorated the structural steel at the corners of the building. We recommend the limestone veneer be removed and the steel evaluated, repaired and protected with an appropriate coating. The veneer can then be reinstalled and repaired as necessary. We recommend both sides of each corner be addressed from the second floor to the twelfth floor.

Due to overall condition of windows, we recommend all window be replaced with an aluminum window of appropriate design pressure rating. Replacement considerations must include window pans, window buck work and masonry consolidation at window openings. Masonry sills are prone to freeze thaw damage, each window will need an allowance of work to cover masonry consolidation prior to installation of pans and new windows.

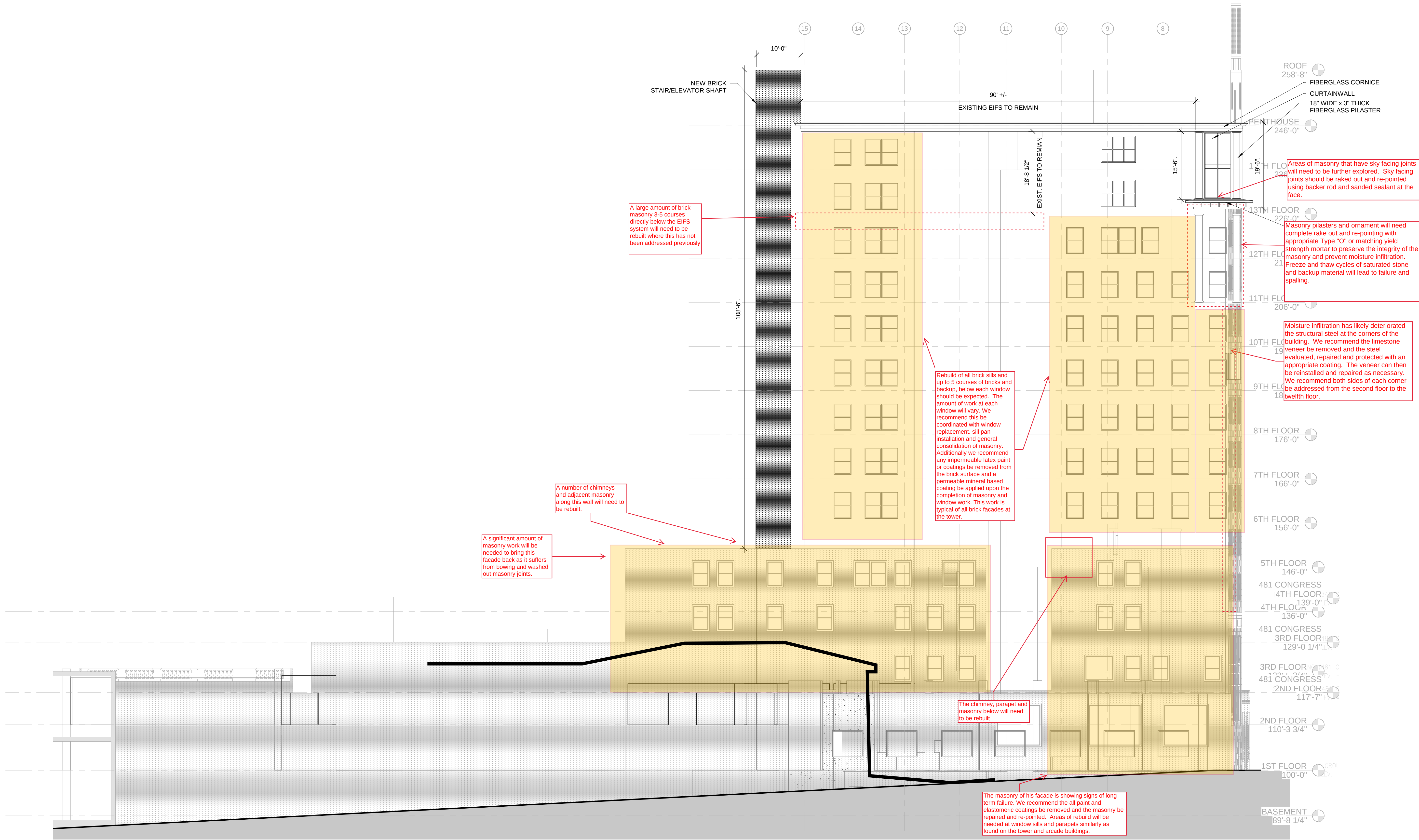


1 | CONGRESS STREET ELEVATION
3/32" = 1'-0"

Prepared For:		HRI PROPERTIES	
Consultant:		ENVELOPE ARCHITECTURE & CONSULTING ARCHITECTURE • BUILDING ENVELOPE DESIGN CONSULTING • INTERIOR DESIGN 2017-807-6661	
Architect:		ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
Project:		477 CONGRESS HOTEL 477 Congress Street Portland, Maine	
Revisions:			
Date:	Scale:	EXTERIOR ELEVATIONS	
21 OCT 2019	3/32" = 1'-0"		
A4.00			

1 WEST ELEVATION

3/32" = 1'-0" 0 4'-0" 8'-0" 16'-0" 32'-0"



Prepared For:

HRI PROPERTIES

812 Gravier Street, Suite 200
New Orleans, LA 70112

Consultant:

ENVELOPE

ARCHITECTURE & CONSULTING

ARCHITECTURE • BUILDING ENVELOPE DESIGN
CONSULTING • INTERIOR DESIGN

207-807-7666

Architect:

ARCHETYPE ARCHITECTS

48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:

477 CONGRESS HOTEL

477 Congress Street
Portland, Maine

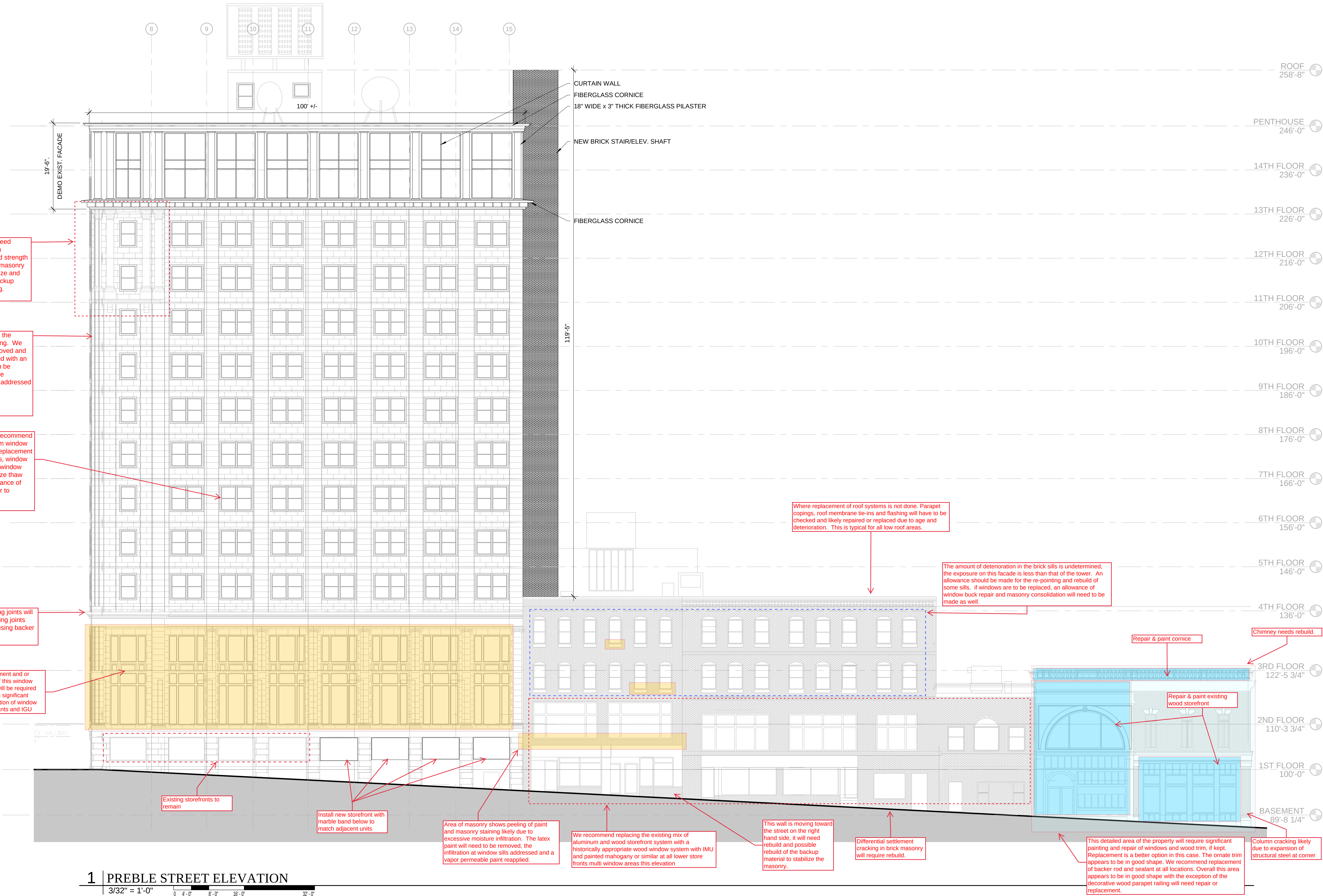
Revisions:

Date: 21 OCT 2019

Scale: 3/32" = 1'-0"

EXTERIOR ELEVATIONS

A4.01



1 PREBLE STREET ELEVATION

3/32" = 1'-0" 0 4'-0" 8'-0" 16'-0" 32'-0"

Prepared For:

HRI
PROPERTIES

812 Gravier Street, Suite 200
New Orleans, LA 70112

Consultant:

ENVELOPE
ARCHITECTURE & CONSULTING
ARCHITECTS
GENERAL BUILDING EXTERIOR DESIGN
2017-807-6661

Architect:

ARCHETYPE
ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:

477 CONGRESS
HOTEL
477 Congress Street
Portland, Maine

Revisions:

Date:

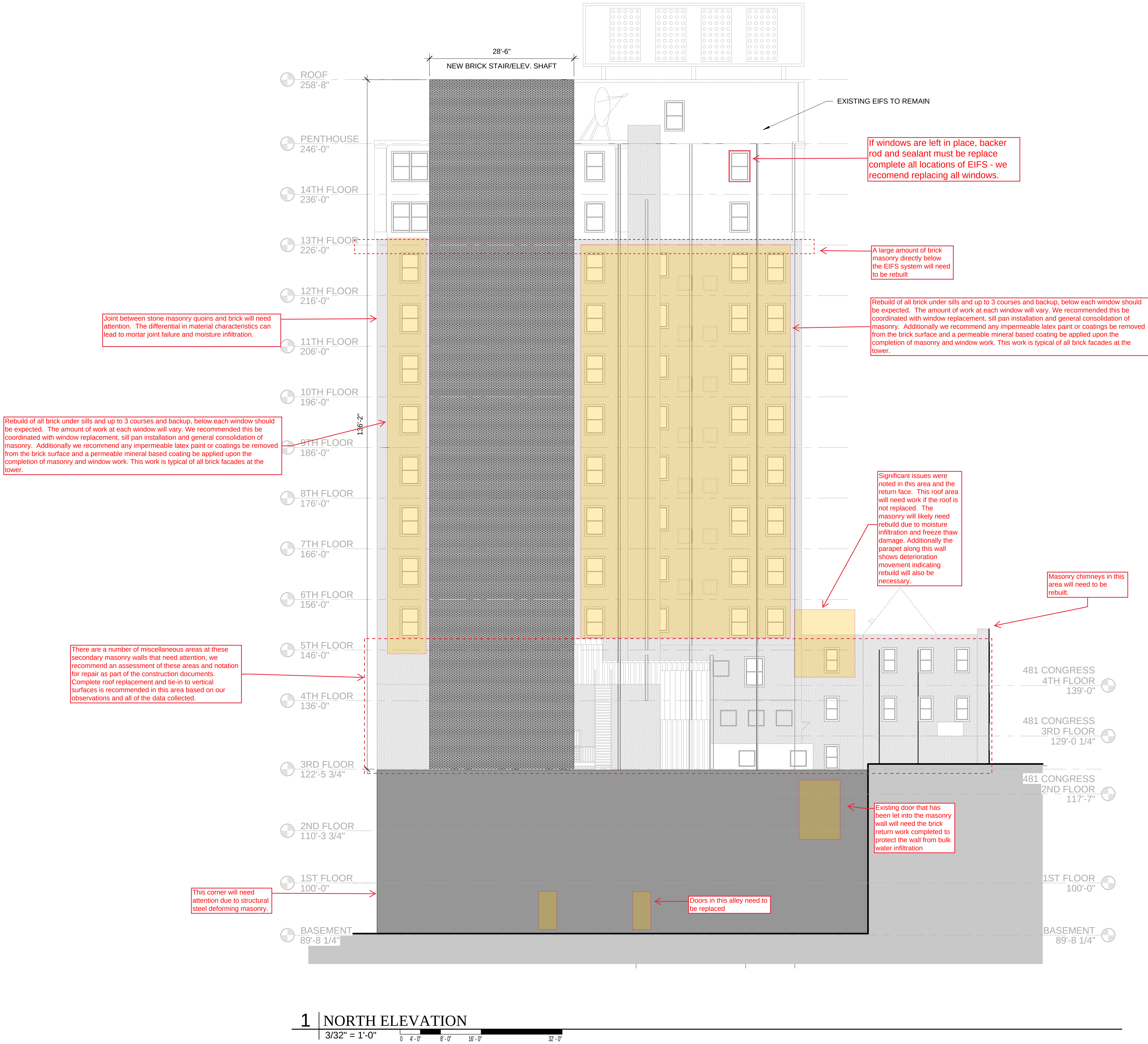
21 OCT 2019

Scale:

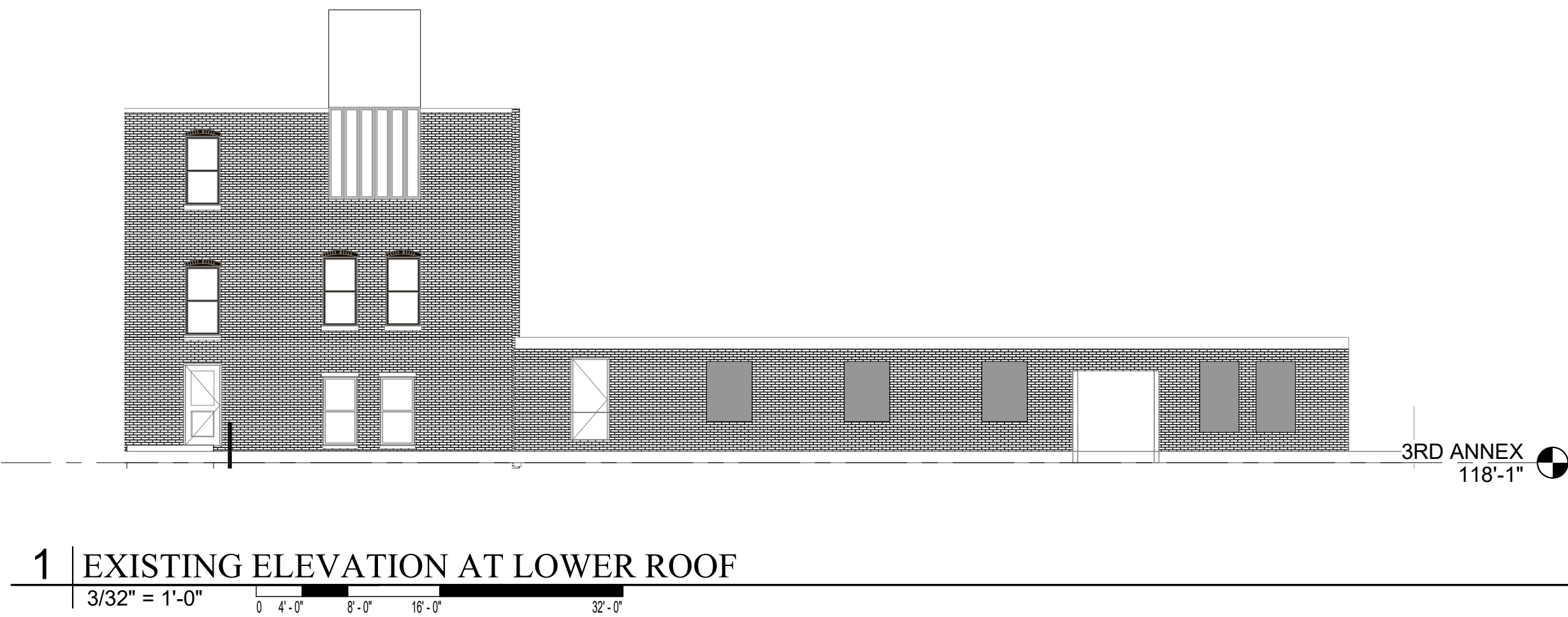
3/32" = 1'-0"

EXTERIOR
ELEVATIONS

A4.02



Prepared For:		HRI PROPERTIES	
		812 Gravier Street, Suite 200 New Orleans, LA 70112	
Consultant:		ENVELOPE ARCHITECTURE & CONSULTING ARCHITECTS • BUILDING DESIGNERS • ENGINEERS 1000 Poydras Street, Suite 2000 • New Orleans, LA 70112 207-807-6661	
Architect:		ARCHETYPE ARCHITECTS 48 Union Wharf • Portland, Maine 04101 (207) 772-6022 • Fax (207) 772-4056	
Project:		477 CONGRESS HOTEL	477 Congress Street Portland, Maine
Revisions:			
Date:	21 OCT 2019	Scale:	3/32" = 1'-0"
		EXTERIOR ELEVATIONS	
		A4.03	



1 | EXISTING ELEVATION AT LOWER ROOF



2 | EXISTING ELEVATION AT LOWER ROOF

A4.04

Date:
1 NOV. 2019

Scale:
3/32" = 1'-0"

Revisions:

Project:

477 CONGRESS
HOTEL

477 Congress Street
Portland, Maine

Architect:

ARCHETYPE
ARCHITECTS

48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

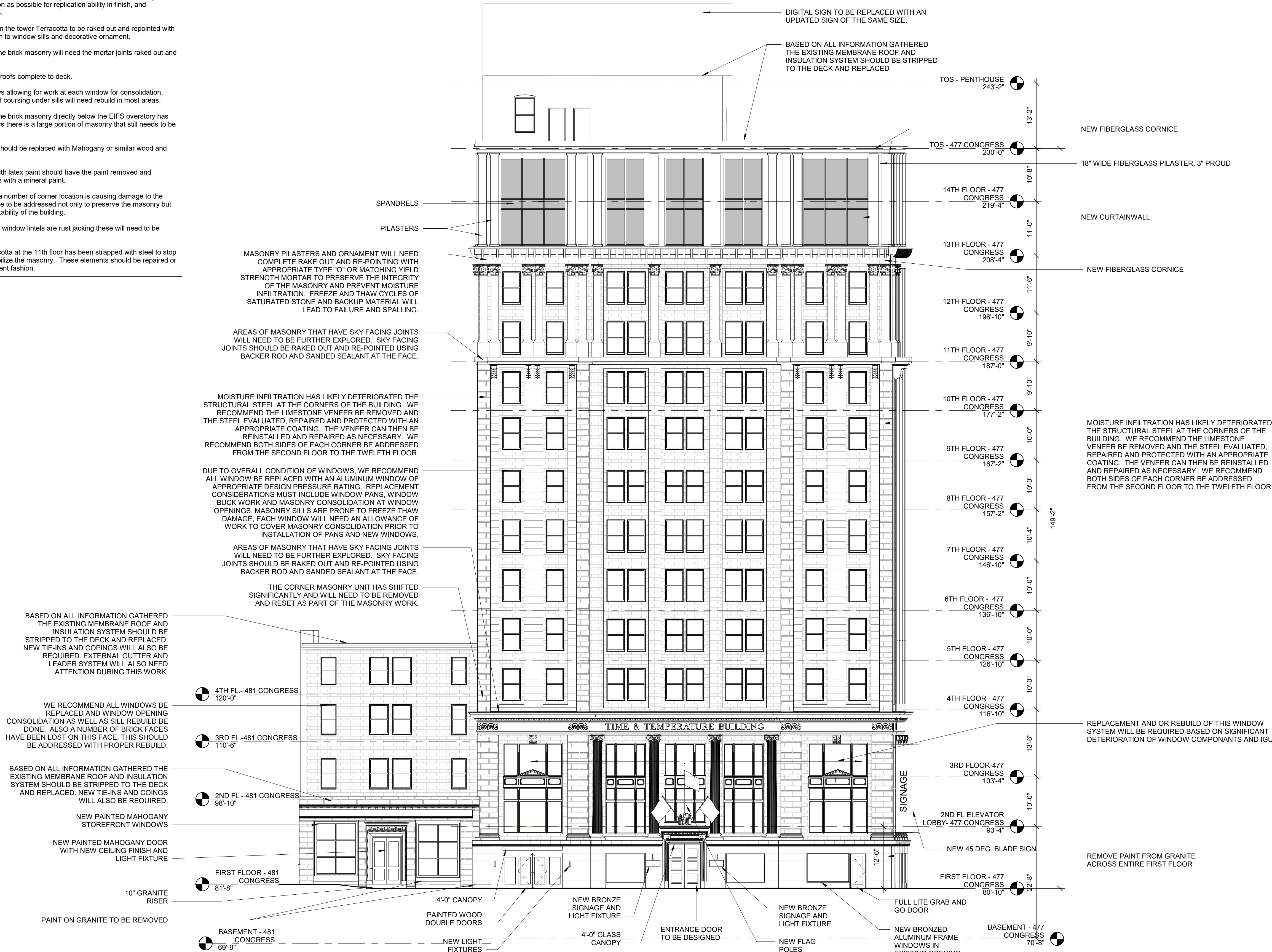
Consultant:

Prepared For:

HRI
PROPERTIES

812 Gravier Street, Suite 200
New Orleans, LA 70112

- Preliminary General Notes:**
1. Terracotta cladding is difficult to work with and expensive to replace. Skilled masons must be used to ensure existing pieces are protected and new work is placed properly. We recommend existing TC be sent to the two leading manufacturers as soon as possible for replication ability in finish, and deliverable schedules.
 2. All masonry joints in the tower Terracotta to be raked out and repointed with special attention given to window sills and decorative ornament.
 3. A large portion of the brick masonry will need the mortar joints raked out and repointed.
 4. Replace all EPDM roofs complete to deck.
 5. Replace all windows allowing for work at each window for consolidation. Brick window sills and coursing under sills will need rebuild in most areas.
 6. A large portion of the brick masonry directly below the EIFS overstory has been rebuilt, it appears there is a large portion of masonry that still needs to be rebuilt.
 7. Wood storefronts should be replaced with Mahogany or similar wood and IGU windows.
 8. All bricks coated with latex paint should have the paint removed and repainted after repairs with a mineral paint.
 9. Structural Steel in a number of corner location is causing damage to the masonry, this will have to be addressed not only to preserve the masonry but to ensure structural stability of the building.
 10. A number of steel window lintels are rust jacking these will need to be replaced.
 11. Decorative Terracotta at the 11th floor has been strapped with steel to stop deterioration and stabilize the masonry. These elements should be repaired or replaced in a permanent fashion.



2 | CONGRESS ST - ELEVATION - NEW
3/32" = 1'-0"

Prepared For:
PRESIDIUM

Consultant:

Architect:
ARCHETYPE ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:
TIME & TEMPERATURE HOTEL
477 Congress Street Portland, Maine

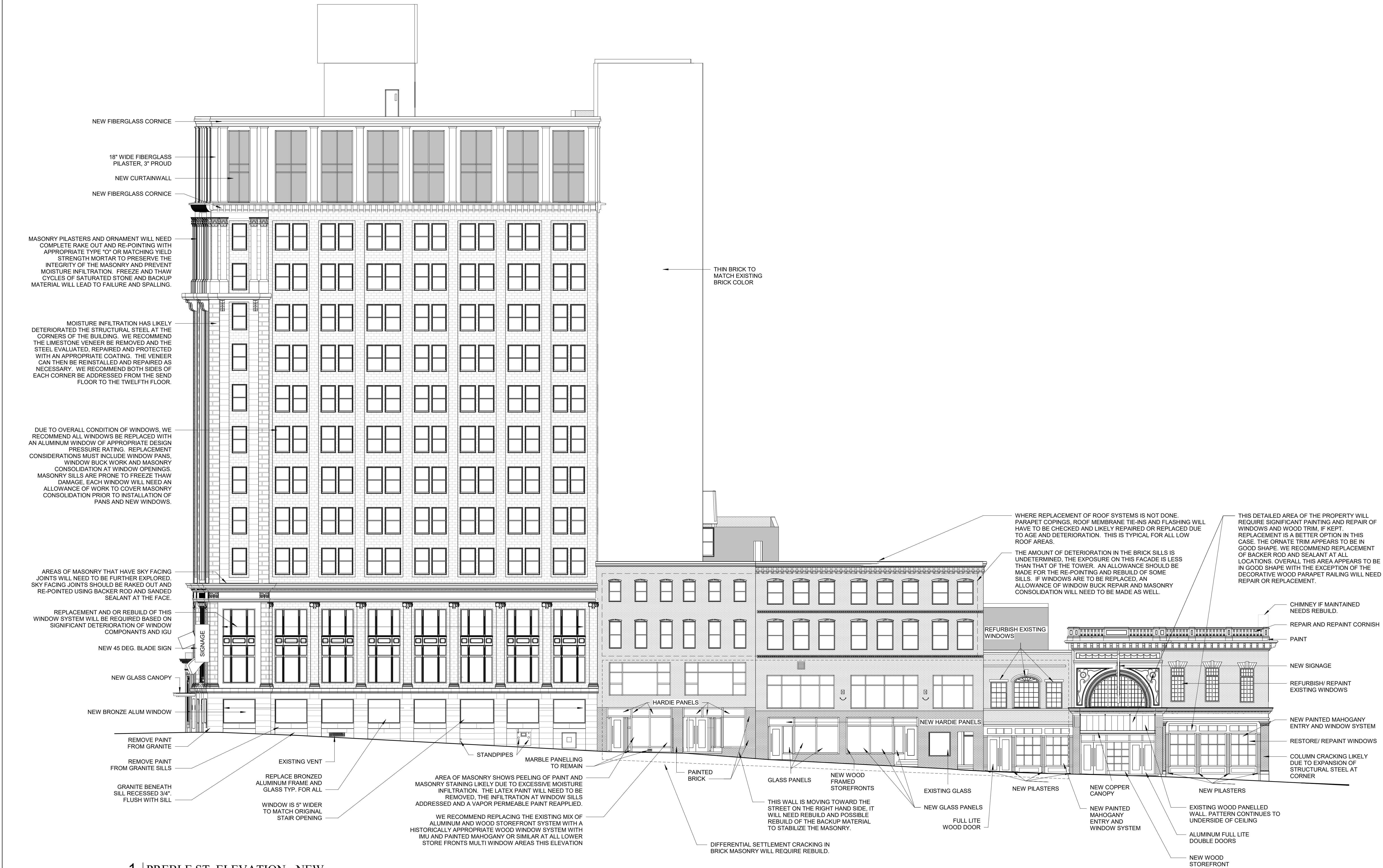
Revisions:

Scale:
3/32" = 1'-0"

Date:
16 APRIL, 2021

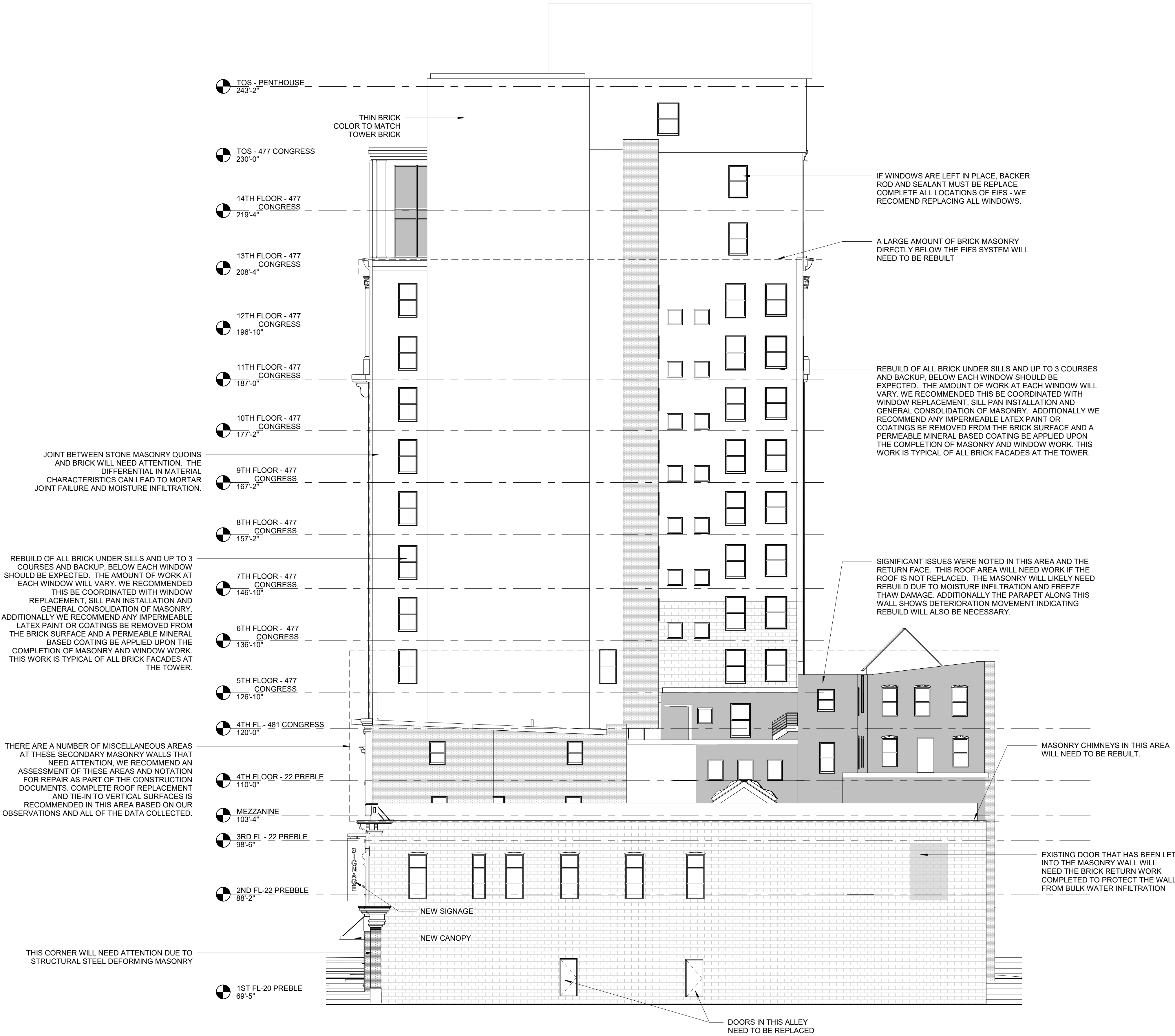
**CONGRESS ST
ELEVATION**

A4.21



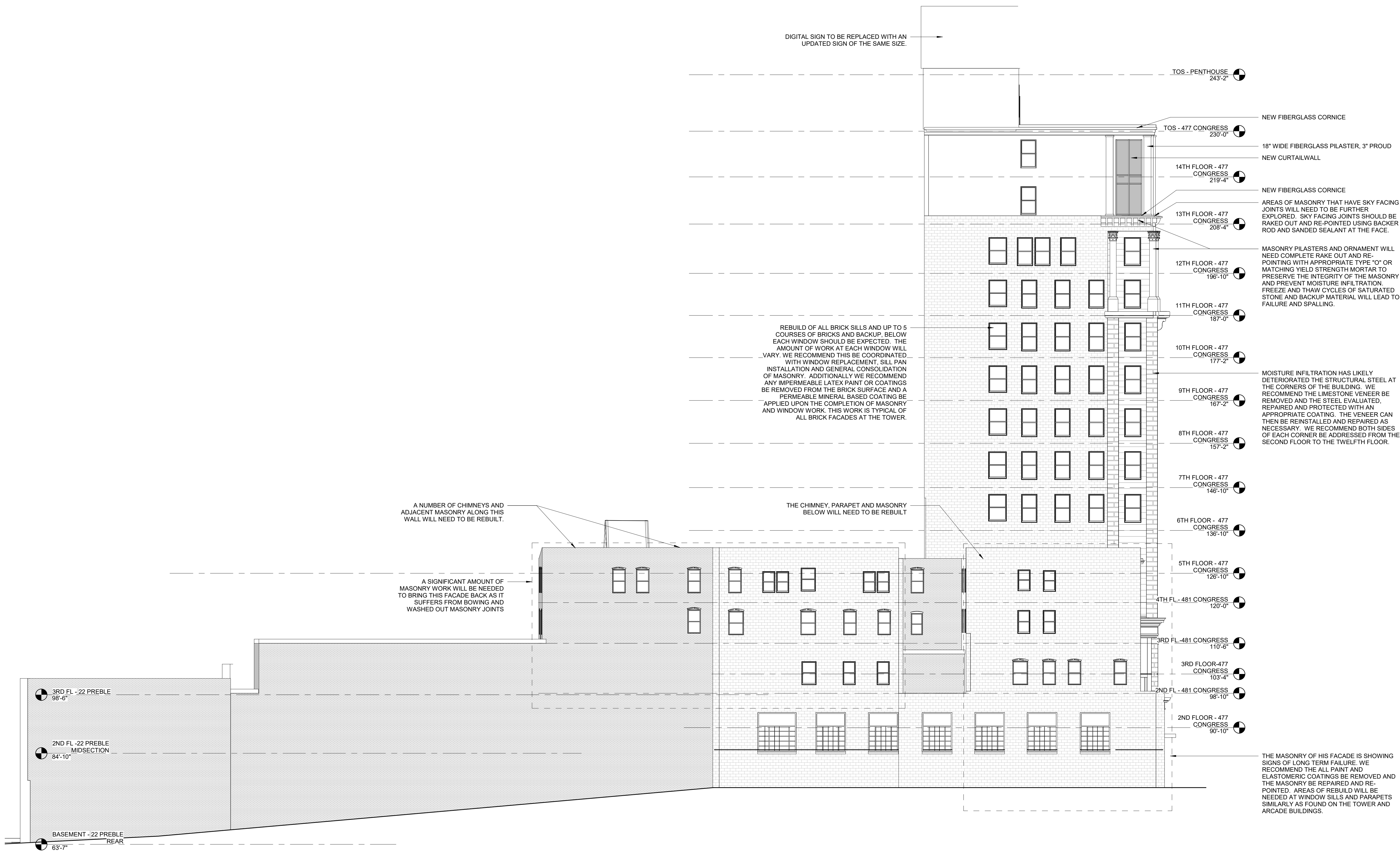
1 | PREBLE ST. ELEVATION - NEW
3/32" = 1'-0"

Prepared For:		PRESIDIUM	
Consultant:		ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
Project:		TIME & TEMPERATURE HOTEL 477 Congress Street Portland, Maine	
Revisions:			
Date:	16 APRIL, 2021	Scale:	3/32" = 1'-0"
		PREBLE ST. ELEVATION	
		A4.22	



1 | NORTH ELEVATION NEW
3/32" = 1'-0"

Prepared For:		PRESIDIUM	
Consultant:		ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
Project:		TIME & TEMPERATURE HOTEL 477 Congress Street Portland, Maine	
Revisions:		NORTH ELEVATIONS	
Date:	16 APRIL, 2021	Scale:	3/32" = 1'-0"
A4.23			



1 | WEST ELEVATION NEW
3/32" = 1'-0"

Prepared For:
PRESIDIUM

Consultant:

Architect:
**ARCHETYPE
ARCHITECTS**
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:
**TIME &
TEMPERATURE
HOTEL**
477 Congress Street
Portland, Maine

Revisions:

Scale: 3/32" = 1'-0"

Date: 16 APRIL, 2021

WEST ELEVATION

A4.24

PLANNING BOARD REPORT PORTLAND, MAINE

144 State Street
Level III Site Plan, Subdivision, IZ Conditional Use
PL-001259-2020
045 006001, 045 007001
NewHeight Redfern, LLC, Applicant



Submitted to:	Portland Planning Board	Prepared By:	Caitlin Cameron
Public Hearing Date:	August 24, 2021	Date:	August 20, 2021

I. INTRODUCTION

NewHeight Redfern LLC seeks Level III Site Plan, Subdivision, and Inclusionary Zoning Conditional Use approval for the properties at 148, 120 State Street (currently the Mercy Hospital site) located within the B-3 zone in order to facilitate the adaptive reuse of the Mercy Hospital building and the Morrison House as phase 1 of the overall redevelopment of the Mercy Hospital campus. The proposed program includes 170 residential units, 70 on-site parking spaces (15 to be leased to the Winter Street properties), a medical clinic, a fitness facility, commercial/retail space, office space, a self-storage facility, and tenant amenities.

Applicant: NewHeight Redfern, LLC

(represented by Jonathan Culley & Erin Cooperrider)

Agent and Civil Engineer: Acorn Engineering
(Will Savage)

Architect: Ryan Senatore Architecture, LLC
(Ryan Senatore)

Landscape Architect: Aceto Landscape
Architects (Nick Aceto)

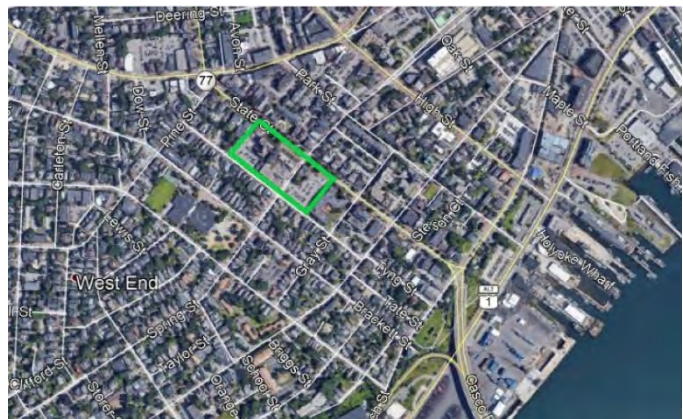


Figure 1: Vicinity Map (applicant's property outlined)

The adaptive reuse of the existing Mercy hospital building will include a range of commercial, and residential uses, and a shared parking/woonerf area. The two properties currently include the Mercy Hospital facility, with components that include an emergency room, surface parking areas, and the Morrison House with administrative offices for the hospital.

The public hearing was noticed to 296 neighbors and interested parties, and the public notice appeared in the *Portland Press-Herald* on August 12th and 13th 2021. The applicant held a Neighborhood Meeting on November 5, 2020, with notes included ([Attachment U](#)). As of the writing of this report staff have not received additional public comments regarding the site plan application.

The first workshop was held on November 17th, 2020 and included discussion of both the required zoning amendments and the site plan.

The second workshop was held on June 22nd, 2021 and included discussion of the woonerf design, especially the landscape and accessibility, details about the self-storage use, pedestrian safety within the alley, the parking exemption as a change of use, and the parking management plan. Two members of the public spoke about accessible routes through the site to the Morrison House as well as the design of Spring Street. The Planning Board generally supported the waiver request for protection of landscape in the parking area in exchange for accessibility. More information is needed regarding the street trees and what is being removed/kept, EV charging station accommodation, snow storage, and public utilities.

The Historic Preservation Board reviewed and approved the project for a Certificate of Appropriateness on August 11th with a condition that the catenary lighting system on Winter Street be reevaluated considering the small-scale residential character of the street. Given this condition, the Applicant will need to submit any revised lighting information in the case of a change.

Required reviews and requested waivers:

Applicant's Proposal	Applicable Standards
New construction over 10,000 sf	Sec 14-526 Level III Site Plan Review
Subdivision (170 dwelling units)	Sec 14-497 Subdivision Review
Multi-family Residential >10 units	Sec 14-487 Inclusionary Zoning Conditional Use
Parking Requirement Reduction (32%)	Ch 14 Div. 20 Off-street Parking/B-3 Zone
Congress Street Historic District	Certificate of Appropriateness (for approval by HPB)
Waivers	Citation
Parking Lot Landscaping – no landscape protection	City of Portland Technical Manual 4.5.5 Parking Areas

II. PROJECT DATA

Current Zoning: B-3 Downtown Business Zone

Existing Use: Hospital, surface parking, office

Proposed Uses:

Residential (mix of market rate, low- and moderate-income affordable); general office; medical clinic; health club; professional services; restaurant; retail; grocery; self-storage

SUBJECT	DATA
Total area of the site	75,463 sq ft
Total Disturbed Area	57,216 sq ft
Impervious Surface Area	
--Existing	95,396 sq ft
--Proposed	93,073 sq ft
--Net Change	-2,323 sq ft
Building Footprint (2 buildings)	52,280 sq ft (two buildings)

--Existing	32,053 sq ft
--Proposed	-20,227 sq ft
--Net Change	
Building Floor Area	
--Existing	232,594 sq ft (two buildings)
--Proposed	160,612 sq ft
-Net Change	-71,982 sq ft
Proposed Bedroom Mix	170 total (two buildings)
-Efficiencies	37
-One-bedroom	131
-Two-bedroom	2
-Three-bedroom	0
Parking Spaces	55 (on-site)
Bicycle parking Spaces	54 (0 existing)

III. BACKGROUND AND EXISTING CONDITIONS



Figure 2: Existing Conditions (applicant)

a. Current Land Uses and Zoning

The proposed project is comprised of two parcels, Chart 45, Block C, Lot 7 (120 State Street) and Chart 45, Block C, Lot 6 (148 State Street), encompassed by State, Spring, and Winter streets. The site is currently comprised of the existing 1943 Mercy Hospital complex which includes multiple building additions throughout the years, surface parking, and a loading dock area. Mercy has operated a hospital on the subject site for approximately seven decades and is proposed to continue operations on site through 2022. The Morrison House, which fronts onto State Street, hosts hospital administrative offices. A large area of surface parking to accommodate the existing uses occupies these blocks, interrupting the historic fabric.

In addition to the applicant's property, the immediate vicinity includes State Street and the variety of building types it contains – a wide, historic street with wide sidewalks and established street trees. The buildings range from historic mansions converted to uses including a funeral home, Portland Club, offices, and retail. Two

historic landmark church complexes with garden spaces are across the street and include community centers, day care, and places of assembly. The context becomes residential with a variety of scales and eras of buildings after the church properties. Spring Street has an intact historic fabric as does the southwest side of Winter Street. The character of Spring and Winter streets is predominantly small-scale residential, with some exceptions. Most of these properties are protected by historic districts (see section below).

b. Historic Resources

The area under review is within the West End Historic District and is adjacent to the Congress Street Historic District. In addition, many of the properties within the area are designated historic landmarks or contributing structures (see figure below). When alterations, additions, or new construction are contemplated, the Historic Preservation Board has review authority.

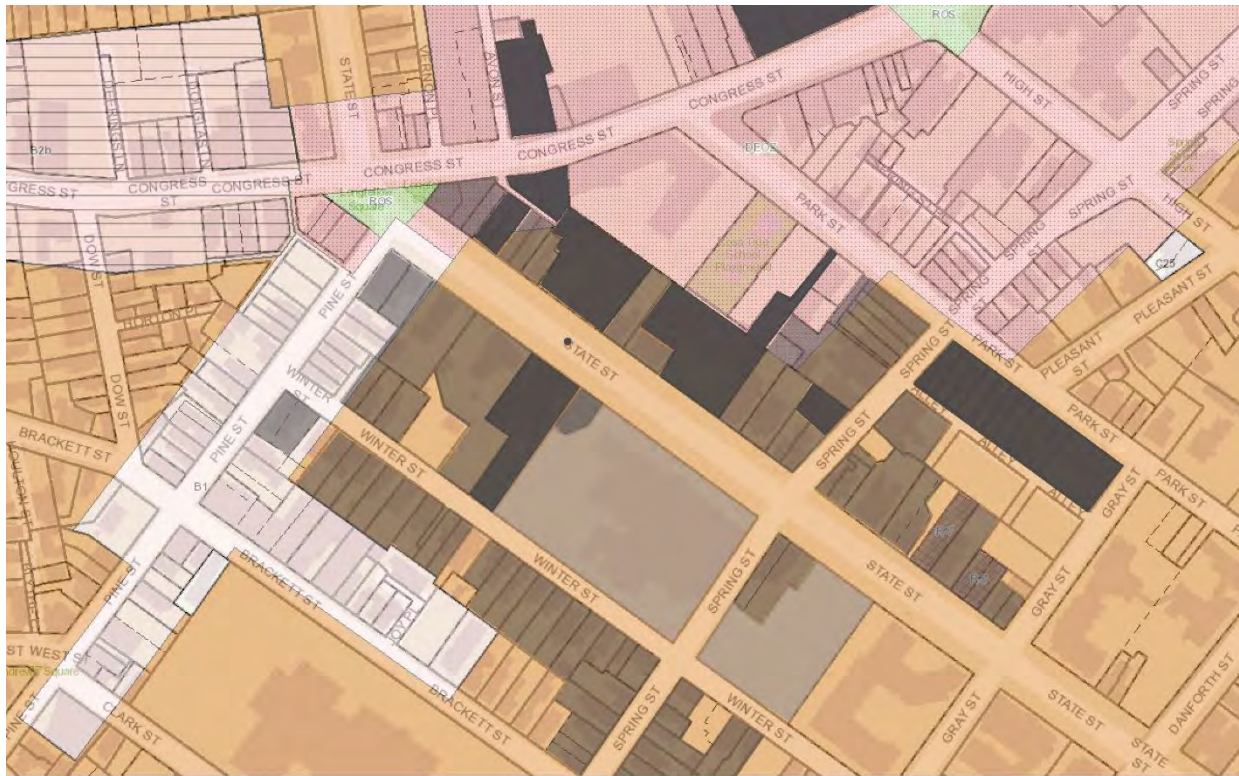


Figure 3: Historic Resources (Landmarks - dark grey, Contributing - light grey)

IV. STAFF REVIEW

A. RIGHT, TITLE, AND INTEREST

The applicant submitted a deed transferring two parcels from Mercy Hospital to NewHeight Redfern LLC (Attachment C). Two new parcels will be created on Winter Street for the Community Housing of Maine (CHOM) residential buildings – these boundaries are indicated on the site plan and will be newly platted as a part of this project.

The applicant provided draft easement showing the ability to make site plan improvements across property lines. Reciprocal access easements across property lines will also be required as a condition of approval.

B. ZONING ASSESSMENT

General Assessment: The proposal is located in the B-3 zone as a change of use within existing buildings. The purpose statement for the B-3 zone includes the following language relevant to the proposal:

- (2) Enhance and promote the orderly expansion of retail and service businesses downtown, satisfying the related needs of the city's resident, working and visitor populations;*
- (3) Encourage increased housing opportunity downtown for a diverse residential population;*
- (4) Enhance the pedestrian environment through the encouragement of intensive mixed-use activities, through the enhancement and maintenance of public and private open space, and through the enlivenment and increased attractiveness of the street environment;*

The zoning dimensional requirements are permissive in the B-3 zone – in most cases the requirements are intended to create dense, taller buildings that fill the site and maintain a street wall line. In both cases, the buildings are existing to remain with legally non-conforming front yard setbacks. In the case of the hospital building, the building footprint will be reduced with the removal of the emergency room. The project proposes a rooftop addition – the height of these additions does not rise higher than the existing building height. There are no stepback requirements in the B-3 zone.

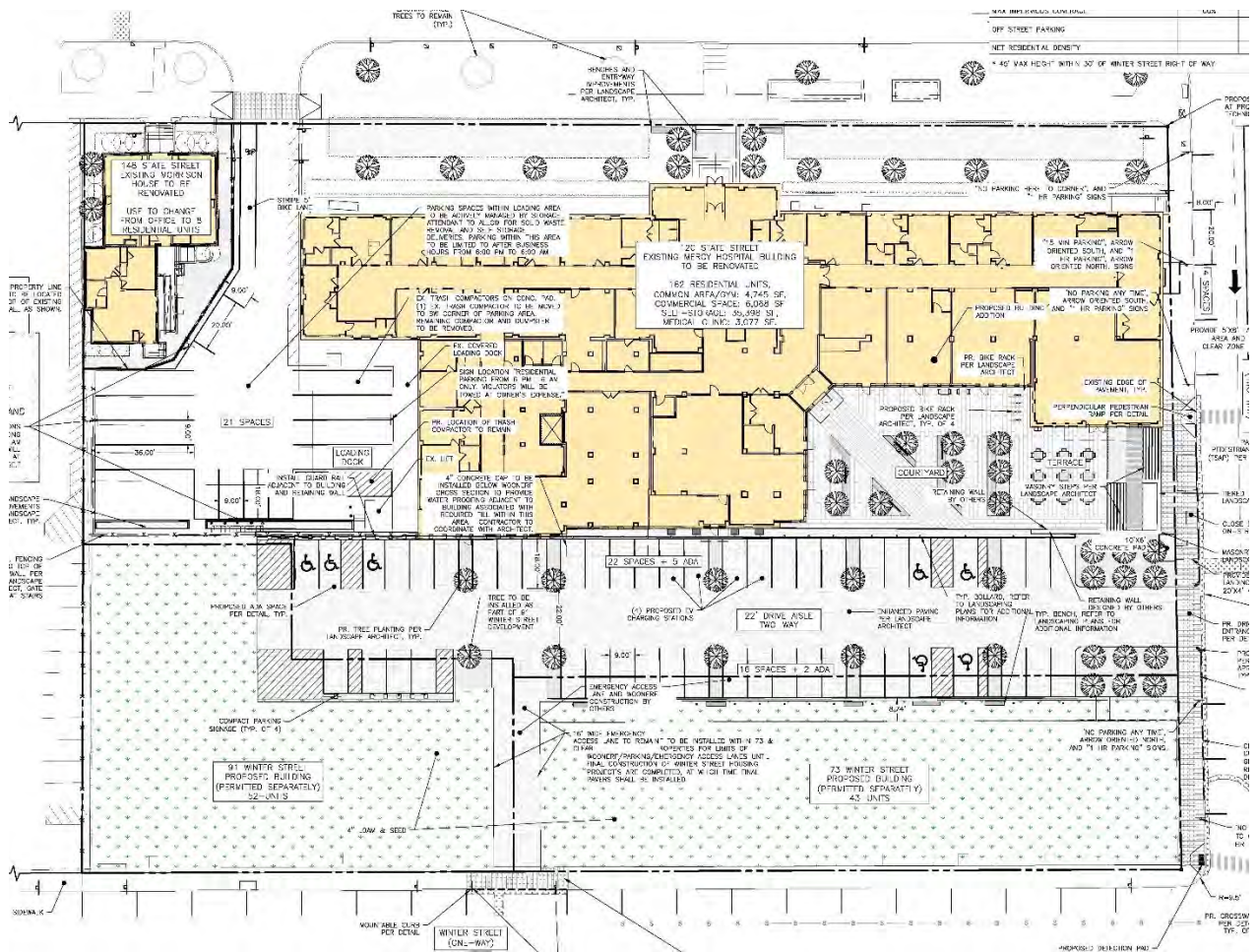


Figure 4 Proposed Site Plan

C. SUBDIVISION REVIEW STANDARDS

(14-497(a). Review Criteria)

The proposed development was reviewed by staff for conformance with the relevant review standards of the City of Portland's subdivision ordinance. Staff comments are below and in *Attachments 1-3*.

1. A Will Not Result in Undue Water or Air Pollution

The project is not anticipated to result in undue air or water pollution. *The subject site is currently improved with a hospital, emergency room, office space, and surface parking.*

2 & 3. Sufficient Water Availability and Will Not Cause Unreasonable Burden on Existing Water Supply

The applicant received a capacity letter from the Portland Water District (Attachment P).

4. Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result

No unreasonable soil erosion or reduction in the capacity of the land to hold water is anticipated given the infill/adaptive reuse site. Site Plan (Plan P4) and Erosion & Sedimentation Control Plan (Attachment K) provide information about stabilizing the site during and after construction.

5. Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed

The applicant provided a traffic and parking assessment and Transportation Demand Management (TDM) Plan (Attachments S, T) in which they propose future trip reductions. Tom Errico, the City's consulting traffic engineer, provided the following comments in previous reports regarding traffic impacts:

- o *A trip generation estimate was conducted for proposed and prior uses at the site. The estimate was generally based on Institute of Transportation Engineers (ITE) data and notes the project will generate 67 AM peak hour trips and 59 PM peak hours trips. Mercy Hospital was estimated to generate 206 AM peak hour trips and 235 PM peak hour trips. Given the reduced trip generation, this project would not be expected to have an impact on the public street system. A traffic study is not suggested.*

State Street is scheduled to be paved in 2022. Utility work and any necessary curb work should be completed in 2021 to avoid moratorium repairs.

6. Will provide for adequate sanitary waste and storm water disposal and will not cause an unreasonable burden on municipal services if they are utilized

Existing sewer lines are proposed to service the buildings. The applicant received a wastewater capacity letter from Department of Public Works (Attachment M). A grease trap is required for any restaurant use. Existing catch basins and stormwater sewer lines will be removed.

Based on the creation of impervious surface and development activity that can contribute to erosion/sedimentation impacts, the project is required to comply with the Maine DEP Chapter 500 and Section 5 of the Technical Manual for stormwater management – basic, general, flooding, and redevelopment standards apply.

7. Will not cause an unreasonable burden on the ability of the City to dispose of solid waste and sewage if municipal services are to be utilized

The existing building waste management includes a trash room in the basement with two trash compactors and a dumpster in the loading dock area. The proposal is to relocate one of the compactors to a different location within the loading dock area. The other trash compactor and dumpster will be removed.

8. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or by the City, rare and irreplaceable natural areas, or any public rights for physical or visual access to the shoreline

This proposal is not deemed to have an adverse impact on the scenic beauty of the area. The project is within the West End historic district and includes a Historic Preservation Board review. The project received Certificate of Appropriateness on August 11th, 2021.

9. Is in conformance with the Comprehensive Plan, Portland's Plan 2030

The project is in keeping with the stated goals around affordability, equity, authenticity (preserving the historic building), and furthers the policy of creating complete neighborhoods. The project takes advantage of a central, downtown location near transit and walkable services.

Goals and policies of both the state and the city, as described in the strategic plans that comprise the Portland Comprehensive Plan, relevant to the proposed map amendment have been included below. The reuse of the Mercy buildings align with these vision statements and goals through the ability for adaptive reuse of existing and historic structures in an urban infill neighborhood, provide the opportunity for a complete neighborhood by allowing a mixture of uses within a dense, residential neighborhood and increasing the services provided within a walking and transit radius. The historic, walkable character of the neighborhood is maintained with the existing historic protections and the reuse of existing historic structures.

Vision Statements

- Equity: We will be a state and national leader in achieving a more equitable city.
- Sustainable: Portland has been built and rebuilt to endure; we will balance our historic fabric, sound infrastructure, and the best of new technology and design for the future.
- Sustainable: Portland will grow in order to sustain our community, infrastructure, and economy.
- Sustainable: Growth should respect and seek to preserve our spectacular natural resources.
- Authentic: The uniqueness and integrity of our neighborhoods will be maintained and enhanced.

Environment

- Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation.
 - Continue to develop land use policies which support complete neighborhoods.
 - Encourage landowners and developers to incorporate sustainable design, materials, and practices in rehabilitation of historic resources and in new construction.

An Enduring City – Historic Preservation

- Stabilize and enhance historic areas of the city by ensuring quality investment in existing structures and compatible infill development.
- Ensure an appropriate balance of continuity and change as Portland grows and evolves.
 - Encourage investments in historic structures
 - Foster partnerships
 - Balance multiple objectives

A Livable City: Housing

- Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.
- Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a

means of supporting complete neighborhoods.

- Pursue policies to enable people who work in Portland to have the option to live in Portland.
- Encourage quality, sustainable design in new housing development.
 - o Remove housing barriers
 - o Leverage underused properties
 - o Support age-friendly housing options
 - o Adapt affordable housing

An Accessible City – Transportation

- Promote multi-modal accessibility, enabling residents and visitors of all ages and abilities to participate fully in the social and economic life of the community.

Future Land Use

- Complete Neighborhoods
- Reinforce the Center

10. The subdivider has adequate financial and technical capacity

As noted above, the applicant has provided evidence of financial and technical capacity (Attachment G, H).

11. Wetland/Water Body Impacts

Project is not located within a watershed of any pond or lake or within 250 feet of any wetland, great pond or river.

12. Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater

The proposed project is an urban infill site. There are no anticipated impacts to groundwater supplies.

13. Flood-Prone Area

Per the FEMA flood maps, the site is not located in a flood zone.

14. Stormwater Management

Based on the amount of impervious surface, it is staff's determination that the project is required to comply with the Maine DEP Chapter 500 and Section 5 of the Technical Manual for stormwater management. This requires compliance with the Basic, General, and Flooding Standards. The Applicant has provided a detailed Erosion and Sedimentation Control plan to meet the Basic Standards. The project will require a Stormwater Maintenance Agreement, which will be recorded along with the subdivision plat post-approval.

15. Shore Frontage

The parcel does not have shore frontage. No river, stream or brook within or abutting the proposed subdivision.

D. SITE PLAN REVIEW STANDARDS

(14-526 Site Plan Standards)

Impact on surrounding street systems – There are two curb cuts for the project – one on State Street and one on Spring Street – with an emergency vehicle access on Winter Street. The proposal keeps one curb cut on State Street for entry/exit to the Morrison House surface parking areas. Overall, traffic impacts are reduced from the current use. Staff and the applicant propose to keep the on-street parking on State Street as existing with metered parking appropriate for high turn-over uses and the ability for residents to park overnight.

Access, Circulation – Two curb cuts are to remain for the site, located on State and Spring streets, respectively. An additional emergency access alley is provided from the parking woonerf to Winter Street which crosses the property line and will service emergency vehicles exiting the site. Staff reviewed this design which does not include a curb cut but instead mountable curb and a “no parking” area in front of the alley. The emergency access alley was revised to use the pedestrian pavers rather than vehicular pavers to provide visual cues discouraging vehicles from using the alley to access/exit the site.

EV charging equipment is indicated on the Utility Plan (P7) and does not interfere with parking or circulation. The electrical conduit will be a secondary line pulled from the interior mechanical room.

The woonerf design relies on flush grates for the landscape islands as access points from the parking to the plaza/ building. This condition will require a waiver from Technical Manual standard 4.5.5 requiring protection of landscape areas within surface parking lots.

Loading and Servicing – The applicant proposes to use the existing loading dock area for many services, including resident parking, loading, self-storage parking, and solid waste disposal. Signage is provided to make clear the time limits for parking areas. A parking management plan was also submitted describing how this area will be managed – staff have no further comments (Attachment S).

Curb and sidewalks – The current site plan shows a portion of Winter Street and Spring Street being reconstructed as part of this project. Senior Engineer, Mike Tremblay has the following comments regarding the sidewalks (Attachment 1):

- *All sidewalks along the project frontage should be reconstructed to be ADA-compliant and to meet the City’s technical and material standards. The sidewalks along State Street are in poor condition. The site driveway on State Street is not the City standard brick material in the apron and pedestrian walkway, and is also in poor condition. On Spring Street, sidewalks are in poor condition, with large gaps between bricks, erosion around a tipdown area, etc. The ramps at the corner of State/Spring were completed recently and should not need to be replaced, but we will verify this.*

Public Transit Access – No transit shelter is required; a bus stop and mid-block crosswalk are being provided on Spring Street. The project is within a quarter mile of several existing METRO bus stops (Routes 1, 9A, 9B, 21). City and METRO staff reviewed the design and find it meets the City of Portland Technical Manual requirements as well as METRO requirements.

Vehicular Parking –The applicant has provided a Transportation Demand Management (TDM) plan, traffic analysis, and parking analysis (Attachment S, T). The parking assessment shows the demand to be sixty-eight (68) spaces between the two buildings.

Per Division 20 Off-Street Parking, required parking is calculated as follows:

- 170 residential spaces (1 per 1 residential unit)
- 8 spaces for the medical clinic (1 space/500 sf)
- 35 spaces for self-storage (business over 3,000 sf 1 space/1,000 sf)
- 7 spaces for office/co-work space (1/400 sf).
- The commercial/retail spaces are under 2,000 sf, and thus can potentially waive out of parking requirements; however, if these spaces become restaurant or office uses, additional parking requirements will apply.
- The total required parking is 220 spaces for both buildings.

However, in the B-3 zone, a change of use exempts provision of off-street parking:

Chapter 14, Division 20 Off-street parking & loading: Sec. 14-332.1 Zone specific off-street parking exceptions and modifications.

(e)B-3: No off-street parking shall be required for changes of use.

Technically, both existing buildings include a change of use where no additional parking is required to be provided.

Although the proposed projects are not required to provide additional parking, the applicant proposes two surface parking areas totaling 70 parking spaces. Fifteen (15) of these spaces will be leased to the CHOM properties (71 and 93 Winter), leaving fifty-five (55) parking spaces for 120 and 148 State Street uses.

The assessed peak demand of 68 spaces exceeds the proposed parking of 55 spaces. Staff agree with the findings of the traffic/parking assessment. Tom Errico, traffic consultant, had the following comments (Attachment 2):

- o 70 parking spaces will be provided on-site with 15 spaces being allocated to CHOM, leaving 55 parking spaces for Mercy. Based upon their analysis, there will be a peak demand for 68 parking spaces and thus will be 13 parking spaces short.
- o Mercy's average unadjusted parking demand is 103 parking spaces
- o Mercy peak hour demand is 68 parking spaces

Consideration should be given to the fact that the site currently includes 59 parking spaces which is being increased to 70 spaces for the overall block development.

The project's parking is provided on-site with 70 surface parking spaces - a combination of 49 standard-sized spaces and 21 tandem spaces. Staff reviewed the parking management plan in the case of tandem spaces and highly encourage tandem spaces to be used by tenants within the same building for coordination purposes.

Bike Parking – The applicant will include 54 bicycle parking spaces throughout the site with a combination of outdoor bike hitches and interior storage areas.

Snow Storage – Snow storage plan described in Attachment I, snow will be hauled off-site when needed.

Transportation Demand Management – A TDM plan is included in the submission; the current hospital use has a higher trip generation than the proposed future uses. In preliminary review, Mike Tremblay made these comments ([Attachment 1](#)):

- o *TDM coordinators typically are not charged with managing parking areas on an hour-by-hour basis. The TDM Coordinator has additional responsibilities as outlined in the TDM document. If management of this area is required, it is recommended that the TDM coordinator not be responsible for the day-to-day/hourly management of this area.*
- o *... several interventions would not appear to result in reduced transportation demand. TDM strategies should generally not take "credit" for improvements required by ADA or by the City's technical standards such as sidewalk and ramp improvements. The focus should be on action items that will reduce the number of trips to and from the site, and reduce the site's parking demand.*
- o *The TDM document references that 4 electric vehicle charging stations will be provided. This is positive. DPW encourages the Applicant to make as many spaces as feasible "solar-ready", installing the necessary conduit throughout the parking areas so that charging stations may be added in the future without unnecessary additional cost.*

The TDM plan was revised to separate the strategies described for Morrison House and the Mercy building. Staff find the TDM plan to meet City criteria. Bruce Hyman, Transportation Program Manager, had these comments regarding the TDM ([Attachment 3](#)):

- *The applicant has satisfactorily incorporated changes requested by staff. These changes include modifying the TDM targets and monitoring plan to reflect the full occupancy of Phase I of the overall project, independent of the subsequent phase.*
- *The TDM plan contains a strong menu of TDM strategies, good trip and parking reduction goals and a good multimodal mode share goal for the project.*

Preservation of significant natural features – The proposed project is the redevelopment of a currently developed parcel. Not applicable

Landscape Preservation – Existing landscape adjacent to the building is not proposed to be preserved. The Applicant proposed to preserve the majority of existing street trees on State Street. A landscape preservation plan will be required as a condition of approval per the Technical Manual requirements to protect the existing trees to remain.

Site Landscaping and Buffers – The plan shows a woonerf¹/surface parking area in the middle of the block along with a courtyard area leading to the rear building entrance from Spring Street. Landscaping is also provided as a buffer between the sidewalk and surface parking areas. The street tree contribution will be significant given the limited ability to provide trees/landscape on this dense, urban infill site.

¹ Woonerf: Is a term for common space created to be shared by pedestrians, bicyclists, and low speed motor vehicles.

Surface parking areas are properly buffered from the street with landscape areas. **The landscape/tree islands do not include protection of the landscape area – a requirement of the Technical Manual standard is cited here:**

4.5.5. . . . Landscaping that abuts areas of vehicular use shall be adequately protected and separated from vehicles. Protection should be in the form of curb stops, continuous curbing or guardrails. Curbing and guardrails shall be designed with adequate visibility and durability in order to withstand normal snow plowing operations. Landscaped islands shall be curbed and a minimum of eight feet in width, not including curbing. The incorporation of bioretention into landscaped islands is strongly encouraged.

The applicant proposes a waiver from standard 4.5.5 and provided a Woonerf Tree Maintenance Plan (Attachment V). Staff propose a condition of approval that requires three years of monitoring in consultation with the City Arborist and tree replacement if the woonerf trees do not survive or the applicant may submit a minor site plan application to revise tree planting configurations by incorporating measures to enhance tree survival within the woonerf area.

Street Trees – The site includes six (6) existing street trees – one of which to be removed. The City Arborist noted that the utilities within Spring Street are in conflict with the ability to provide additional street trees. The calculations for the street tree fund contribution are as follows:

- Thirty-six (36) trees are provided within 20' of the public way.
- 120 State – eight (8) residential units require 8 trees, 2 existing to remain, 2 new trees = 4 trees
- 4 trees x \$400 = \$1,600 contribution

- 148 State – one hundred sixty-two (162) residential units require 162 trees, 2 existing to remain
- 162 required – 32 proposed = 130 trees x \$400 = \$52,000 contribution

Water Quality, Stormwater Management and Erosion Control - Lauren Swett, P.E., civil engineering peer reviewer, had the following comments ([Attachment 2](#)):

- o *The project is required to comply with the Maine DEP Chapter 500 and City of Portland Section 5 of the Technical Manual for stormwater management. This includes Basic, General, and Flooding Standards, as well as the Redevelopment Standards for a project like this.*
- o *They will also need to provide a stormwater maintenance agreement for the proposed modular wetland stormwater treatment system.*

Consistency with City Master Plans – See section IV C.

Public Safety and Fire Prevention – The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime.

The spaces between the buildings, woonerf, parking areas are designed with nighttime safety in mind while balancing the light levels appropriate for the residential uses. The woonerf, plaza, and alley meet the illumination level requirements and will have residential units as “eyes on the street.” There are active commercial entrances accessed from the courtyard space to make this space more active.

Public Utilities – The applicant has yet to provide the letter from the Water District showing capacity to serve.

Massing, Ventilation and Wind Impact – The project is not adjacent to any public park or open space. The height of the structure is comparable to surrounding buildings. The proposed buildings are northeast of the existing residential fabric meaning the shadow impact will be minimal on the small-scale abutters for the majority of the day.

Shadow – Not applicable

Snow and Ice Loading – Not applicable

View Corridors – The project is not impacted by the view protection corridors

Historic Resources – The project is within the West End historic district and subject to Historic Preservation Review for the design review. Project was approved for Certificate of Appropriateness with one condition related to the catenary lighting system on August 11, 2021.

Exterior Lighting – The photometrics plan shows lighting levels to meet City requirements. Building and site lighting must comply with Section 12 of the City of Portland Technical Manual in terms of full-cut off, and lumens, and color temperature (Attachment N). **The proposed catenary system will need to have a 13'6" clearance for emergency vehicles and requires final approval from the Historic Preservation staff and if revised, fixtures and photometrics will need to meet the City's standards – this is a condition of approval.**

Noise and Vibration – The HVAC systems are located on the roof and away from abutting residential properties. Historic Preservation review covered the visibility and screening of these systems with regards to the historic character of the buildings. The visual impact on the public right-of-way is undetermined.

Signage and Wayfinding – Not applicable – to be reviewed with future sign permit applications.

Design Standards – Not applicable – Both buildings are existing to remain with minimal exterior changes. The properties are contributing buildings within the West End Historic District and as such, the design review will be conducted by Historic Preservation according to historic design manual standards. The Historic Preservation Board's public hearing on August 11th, 2021 approved the project for Certificate of Appropriateness.

V. INCLUSIONARY ZONING CONDITIONAL USE

With 162 units proposed, the applicant is required by Division 30, Section 14-487 to provide seventeen (17) workforce housing units (on-site or off-site) or pay the fee-in-lieu. Given the project's pending proceeding status, the Inclusionary Zoning requirements in effect prior to the referendum-initiated code amendments that went into effect in late 2020 govern the requirements for this project. The applicant has proposed to provide 17 workforce rental units on site. The Housing Program Manager makes further comment in (Attachment 4):

- *The Applicant has elected to provide seventeen (17) Workforce Units composed of no less than four (4) studio and thirteen (13) one-bedroom units on-site, to satisfy the ordinance's minimum requirements.*

- *As such, the project has met the minimum requirements set forth in Section 14-487.*

VI. PUBLIC COMMENT

As of the writing of this memo, no additional comments were submitted to Planning staff since the second workshop (Attachments PC1-2). It should be noted that the zoning map amendments were approved and adopted by the City Council on 2/22/2021 (Order 164-20/21). A neighborhood meeting for the Site Plan application was held on November 5th, 2020 (Attachment U) with 15 attendees. Generally, there is support for redevelopment of the Mercy campus and optimism for the potential strengthening of the residential neighborhood rather than surface parking and hospital uses. Comments and concerns focused on:

- Traffic and parking impacts on the residential street system – especially curb cut locations and traffic access locations to the redevelopment site and impacts on Winter Street, impacts on nearby school zone
- Parking supply on-site vs. off-site and impacts on surrounding street system
- Lack of family housing, amenities, and consideration for social equity
- Impact of new uses and built character in relation to the existing residential character

VII. 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 August 24, 2021 for application PL-001259-2020 relevant to Portland's technical and design 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 4.5.5 Parking Areas*. The Planning Board [**waives/does not waive**] Technical Manual Section 4.5.5 Parking Areas requiring protection of landscape within parking areas in the form of curb stops, continuous curbing or guardrails.

B. INCLUSIONARY ZONING 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 August 24, 2021 for application #PL-001259-2020 relevant to Portland's Inclusionary Zoning Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] the proposed conditional use for workforce housing meets the standards of Land Use Code Section 14-487 with the following condition(s):

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The Applicant and the City shall enter into an agreed upon Affordable Housing Agreement (AHA) for 17 workforce units integrated with the development, or as an alternative to providing workforce housing units, the applicant may pay a fee-in-lieu for some or all of the required units.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

2. An Affordable Housing Agreement will be filed as a covenant to the property's deed with the Cumberland County Registry of Deeds.

C. SUBDIVISION 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 August 24, 2021 for application #PL-001259-2020 relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the subdivision standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO ISSUANCE OF BUILDING PERMIT

1. Easement and licenses shall be finalized to the satisfaction of the Planning Authority, Department of Public Works, and Corporation Counsel pursuant to the following item:
 - i. Access and Utility Easement from Newheight Redfern, LLC to CHOM
 - ii. Access and Utility Easement from CHOM to NewHeight Redfern, LLC
 - iii. Access and Maintenance Easement from CHOM to NewHeight Redfern, LLC
 - iv. Parking and Sidewalk Easement from CHOM to NewHeight Redfern, LLC
 - v. Access and Utility Easement from Portland Club to NewHeight Redfern, LLC
 - vi. Access easement from NewHeight Redfern, LLC to the City of Portland for bus stop on Spring Street

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

1. A Stormwater Maintenance Agreement for the stormwater drainage system shall be submitted for review by the Planning Authority and Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Please submit final copies to the Planning Authority.

D. SITE PLAN 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 August 24, 2021 for application PL-001259-2020 relevant to the site plan 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 APPLYING FOR BUILDING PERMIT

1. The applicant shall submit the final Construction Management Plan (CMP) to the Planning Authority and Building Authority for review and approval.

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT

2. The Applicant shall submit a tree protection plan to the Planning Authority for the existing trees to remain on State Street for review and approval.
3. The Applicant shall be required to monitor the health of new trees planted within the woonerf area in consultation with the City Arborist for a period of three years beginning on the date the certificate of occupancy is issued and, should the City Arborist find that the new trees show signs of general decline, a minor site plan application to revise tree planting configurations by

incorporating measures to enhance tree survival within the woonerf area shall be submitted to the Planning Authority for review and approval.

4. The Applicant shall submit for review and approval by the Planning Authority the final lighting fixture selection and photometrics plan that meet City of Portland Technical Manual standards for the site lighting proposed in the emergency access alley.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

5. Due to site constraints preventing the planting of required street trees in the right-of-way, the one-hundred seventy (170) street trees as required in Sec. 14-526(2)(b)(iii) of the Site Plan Ordinance cannot be met; the applicant shall contribute to the tree fund of \$400 per tree for one-hundred twenty-six (130) trees x \$400 for a total of \$52,000. The total fee-in-lieu contribution shall be \$53,600.

ATTACHMENTS

Attachments to Memorandum

1. Department of Public Works
2. Civil/Stormwater
3. TDM
4. IZ Conditional Use

Public Comment

PC1 Ginger Raspiller 11.17.20
PC2 George Rheault 2.23.21

Applicant's Submittal

- A. Cover Letter
- B. Application
- C. Right, Title, & Interest
- D. Zoning Assessment
- E. Easements
- F. Waivers
- G. Financial Capacity
- H. Technical Capacity
- I. Conformance with Land Use Ordinance
- J. Stormwater Management Plan
- K. Erosion & Sediment Control Report
- L. Fire Department Letter
- M. Wastewater Capacity
- N. Lighting
- O. Architectural Design Narrative
- P. Utilities
- Q. Construction Management Plan
- R. Solid Waste Disposal
- S. Traffic Parking Analysis, Parking Management
- T. Transportation Demand Management Plan
- U. Neighborhood Meeting Materials
- V. Woonerf Tree Maintenance Plan

Plans

- P1. Cover Sheet
- P2. General Notes
- P3. Boundary & Topographic Survey
- P4. Site Plan
- P5. Site Plan – Interim
- P6. Site Plan – Limits of Construction
- P7. Utility Plan
- P8. Grading Plan
- P9. Site Details – 1
- P10. Site Details – 2

P11. Utility Details – 1
P12. Utility Details – 2
P13. Drainage Details
P14. Erosion Sediment Control Notes
P15. Erosion Sediment Control Details
P16. Landscaping Cover Sheet
P17. Landscape Materials Plan
P18. Landscape Planting Plan
P19. Landscape Site Details
P20. Landscape Details
P21. Landscape Planting Details
P22. Landscape Site Furnishings – 1
P23. Landscape Site Furnishings – 2
P24. Landscape Site Furnishings – 3
P25. Architectural Drawings
P26. Subdivision Plat



Caitlin Cameron <ccameron@portlandmaine.gov>

148 State Street

Mike Tremblay <mtremblay@portlandmaine.gov>

Tue, Nov 10, 2020 at 1:42 PM

To: Caitlin Cameron <ccameron@portlandmaine.gov>

Cc: Tom Errico <thomas.errico@tylin.com>

Caitlin,

Here are my initial comments on 148 State Street:

- All sidewalks along the project frontage should be reconstructed to be ADA-compliant and to meet the City's technical and material standards. The sidewalks along State Street are in poor condition. The site driveway on State Street is not the City standard brick material in the apron and pedestrian walkway, and is also in poor condition. On Spring Street, sidewalks are in poor condition, with large gaps between bricks, erosion around a tipdown area, etc. The ramps at the corner of State/Spring were completed recently and should not need to be replaced, but we will verify this.
- The curb ramp at the corner of Spring/Winter streets are the wrong material, is in poor condition, and lacks a detectable warning panel. This ramp should be replaced in coordination with sidewalk work.
- Sidewalks on Winter Street will be required to be reconstructed as part of the 73 and 91 Winter Street projects. The site plan calls for new granite curb at an existing curb cut, and a mountable curb at locations along Winter Street. The sidewalk reconstruction work should be coordinated with this curb work along Winter Street.
- The Applicant should provide a summary of on-street parking spaces before and after construction, organized by street, including any additional parking, parking to be removed, or parking restriction change.
- Turning templates should be provided for the loading dock. The loading area appears to be crowded, and maneuvers appear to be difficult.
- The loading/parking area, called out on the site plan to be managed by a TDM coordinator, appears to be shared between self-storage users, solid waste, and overnight residential parking. While the traffic and parking analysis document suggests spaces will be seamlessly shared between uses, the site plan indicates that residential uses will only be able to park from 6pm-6am. While we are in favor of encouraging shared parking between uses, DPW believes that these spaces (as a whole, or at the very least in large part) should not be included in the site's residential parking analysis. The parking spaces are too sparsely available for residents to use. A 6pm-6am time period may be suitable for visitor parking, but residents that use these spaces will almost certainly be significantly restricted based on these time limits, to the point where street parking will be more convenient. Additionally, the tandem spaces in this area, if leased to separate units, would create an additional inconvenience, even if managed. If these spaces are wholly removed from the residential parking supply, as recommended by DPW, the supply is reduced to 47 spaces, 12 fewer than the 59 spaces calculated.
- TDM coordinators typically are not charged with managing parking areas on an hour-by-hour basis. The TDM Coordinator has additional responsibilities as outlined in the TDM document. If management of this area is required, it is recommended that the TDM coordinator not be responsible for the day-to-day/hourly management of this area.
- DPW will expand comment on the TDM document at a later date. In general, the strategies identified are positive; however, several interventions would not appear to result in reduced transportation demand. TDM strategies should generally not take "credit" for improvements required by ADA or by the City's technical standards such as sidewalk and ramp improvements. The focus should be on action items that will reduce the number of trips to and from the site, and reduce the site's parking demand.
- The TDM document references that 4 electric vehicle charging stations will be provided. This is positive. DPW encourages the Applicant to make as many spaces as feasible "solar-ready", installing the necessary conduit throughout the parking areas so that charging stations may be added in the future without unnecessary additional cost.
- State Street is scheduled to be paved in 2022. Utility work, and any necessary curb work, should be completed in 2021.

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852





Caitlin Cameron <ccameron@portlandmaine.gov>

144 State Street

Lauren Swett <lswett@woodardcurran.com>

Thu, Nov 12, 2020 at 10:00 AM

To: Caitlin Cameron <ccameron@portlandmaine.gov>

Hi Caitlin,

I have the following preliminary comments for [144 State Street](#).

- The project is required to comply with the Maine DEP Chapter 500 and City of Portland Section 5 of the Technical Manual for stormwater management. This includes Basic, General, and Flooding Standards, as well as the Redevelopment Standards for a project like this.
 - The project has included a detailed erosion and sedimentation control plan to address the Basic Standards. One catch basin is proposed on the 91 Winter Street site, connecting drainage from that site to the overall system. That lot is to remain gravel, to be developed in the future, and I would suggest that an erosion and sedimentation control measure be left in place either in or around the basin to ensure that there is no long-term erosion from the gravel site.
 - The project is providing stormwater treatment to address the redevelopment standard. The Stormwater report also notes that 0.1 acres of new impervious surface is being proposed on the site, which would also trigger the General and Flooding Standards. The report notes that stormwater management will be provided using a proprietary modular wetland system. Additional information on this system, including sizing calculations showing how the system will provide treatment for this site should be provided. I believe that in this case, channel protection volume would be required, so the Applicant should show how this is being provided. A bypass of the system should also be provided.
- A 12" stormdrain connection is proposed in Spring Street. A connection of this size must be provided via a manhole.
- The Applicant has requested utility ability to serve confirmations. Confirmation should be provided when received.
- The extent and timing of impact on Winter Street should be clarified. The Site Plan shows gravel surface for the 73 and 91 Winter Street lots, with only minor curb changes on Winter Street. An interim site plan has been provided that shows loam and seed on the 73 and 91 Winter Street lots, as well as reconstruction of sidewalk to brick on Winter Street. And a third site plan for limits of construction appears to show the existing sidewalk remaining, however street trees and curb ramps have only been shown on this plan. The utility plan shows electrical infrastructure within the Winter Street sidewalk. Please clarify the timing and extent of impact in this area.

If there are any questions, let me know.

Thanks,

Lauren

All Woodard & Curran consulting employees are currently working from home. I do not have regular access to mail or other deliveries made to the office. You can still reach me via email or at my direct or cell phone numbers.

Lauren Swett, P.E.*

Technical Manager

Woodard & Curran

[41 Hutchins Drive](#)[Portland, Maine 04102](#)

Phone: (207)558-3763 (direct)

(207)219-3591 (cell)

144 State (Mercy) - PL_001259-2020

Lauren Swett <lswett@woodardcurran.com>
To: Caitlin Cameron <ccameron@portlandmaine.gov>

Thu, Jun 17, 2021 at 10:22 AM

Hi Caitlin,

The Applicant has responded to my comments adequately. They have revised their site layout and are now reducing impervious surface on the site.

They are still waiting for their confirmation of utility ability to serve. They will also need to provide a stormwater maintenance agreement for the proposed modular wetland stormwater treatment system. I believe both of these items are typically conditions of approval.

Please let me know if there are 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.

PL1529-2020: Mercy Hospital/Morrison House Redevelopment TDM Plan

Bruce Hyman <bhyman@portlandmaine.gov>

Fri, Jun 18, 2021 at 3:21 PM

To: Caitlin Cameron <ccameron@portlandmaine.gov>

Good afternoon, Caitlin,

I've reviewed the revised TDM Plan for the Mercy Hospital/Morrison House Redevelopment. The applicant has satisfactorily incorporated changes requested by staff. These changes include modifying the TDM targets and monitoring plan to reflect the full occupancy of Phase I of the overall project, independent of the subsequent phase.

The TDM plan contains a strong menu of TDM strategies, good trip and parking reduction goals and a good multimodal mode share goal for the project.

Please don't hesitate to contact me if you have any questions.

Bruce

--

Bruce Hyman
Transportation Program Manager

Department of Planning & Urban Development
389 Congress Street
Portland, Maine 04101
(207) 874-8717 phone

bhyman@portlandmaine.gov
<http://www.portlandmaine.gov/1363/Transportation-Division>
<http://www.portlandmaine.gov>

Yes! Transportation's Good Here



To: Caitlin Cameron, Urban Designer, Planning & Urban Development Department

From: Victoria Volent, Housing Program Manager, Housing & Community Development Division

Date: July 26, 2021

Subject: 144 State Street – Inclusionary Zoning Conditional Use

Please note, 144 State Street is entitled to consideration under Division 30 regulations in effect as of the review conducted by the Planning Board during their November 17, 2020 Workshop meeting.

All developments of ten (10) units or more are conditional uses subject to Planning Board review on the condition that they comply with the requirements set forth in Division 30, Section 14-487 of the Zoning Ordinance.

Division 30, Section 14-487, Ensuring Workforce Housing, requires at least ten percent (10%) of the dwelling units in the development shall meet the definition of Workforce Housing units for sale or for rent. The ordinance under Section 14-487 e 3 also requires the number of bedrooms in the units shall be 10% of the total number of bedrooms in the development.

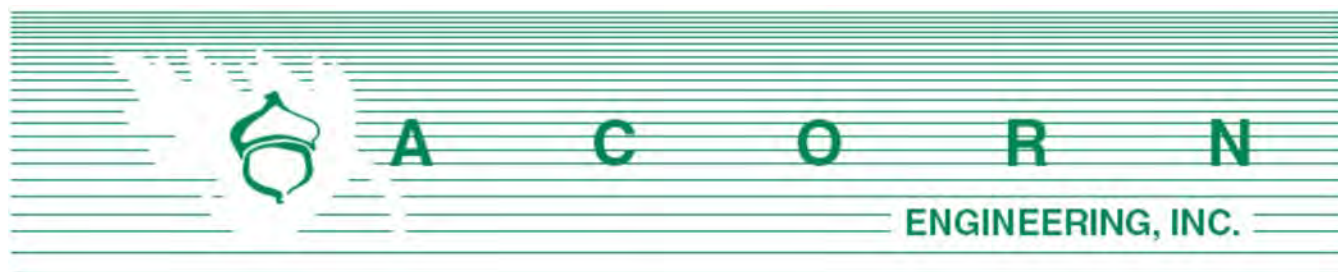
The development located at 144 Street proposes the renovation of 120 State Street to include 162 units of rental housing, and the renovation of 148 State Street to include 8 units of rental housing. Together, the 170 units would include thirty-seven (37) studio units, one hundred thirty-one (131) one-bedroom units, and two (2) two-bedroom units. As dwelling units for rent, the designated Workforce Units would be restricted to households earning up to 100% of Area Median Income (AMI). Based on the requirements outlined in Section 14-487, the development is required to provide; a minimum of seventeen (17) workforce units with no less than four (4) studio and thirteen (13) one-bedroom units; or pay a fee-in-lieu of \$1,878,313 (17 X \$108,786). The Applicant has elected to provide seventeen (17) Workforce Units composed of no less than four (4) studio and thirteen (13) one-bedroom units on-site, to satisfy the ordinance's minimum requirements. As such, the project has met the minimum requirements set forth in Section 14-487.

Staff recommends the Planning Board Approve this Conditional Use provided the Applicant and the City enter into an agreed upon Affordable Housing Agreement (AHA) for 17 workforce units integrated with the rest of the development, or as an alternative to providing workforce housing units, the project may pay a fee-in-lieu for some or all of the required units before a Building Permit may be issued.

The Affordable Housing Agreement will outline the details of the affordability restrictions placed on the Workforce Units and will be filed as a covenant to the property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

Sincerely,

Victoria Volent
Housing Program Manager



Planning and Urban Development Department
 Planning Division
 City of Portland, Maine
 389 Congress Street, 4th Floor
 Portland, ME 04101

September 15, 2020

Subject: Level III Site Plan/Subdivision Application – 120 and 148 State Street
 Mercy Hospital Redevelopment

To Caitlin Cameron,

On behalf of NewHeight Redfern, LLC we are pleased to submit the accompanying package of materials related to the proposed redevelopment of the existing Mercy Hospital at 120 and 148 State Street.

The proposed project site is comprised of two parcels, Chart 45, Block C, Lot 7 (120 State Street) and Chart 45, Block C, Lot 6 (148 State Street), encompassed by State, Spring, and Winter Streets. The Owners recently submitted a map and text amendment application to change the zoning district from R6 Residential Zone to the B3 Downtown Business Zoning District with height limitations along Winter St. The site is currently comprised of the existing Mercy Hospital complex which includes multiple additions throughout the years, surface parking, and a loading dock area. The project includes the subdivision of the Chart 45, Block C, Lot 7 into three parcels to facilitate redevelopment of the existing hospital building and two future affordable housing projects. Adaptive reuse of the historic hospital building will create 167 new residential units and the Morrison House will create 8 new residential units with associated common areas, office, and fitness room, as well as self-storage, commercial/retail space, and a medical clinic. The applicant is also working with Community Housing of Maine (CHOM), a Portland-based, non-profit affordable housing developer to transfer the two proposed outparcels along Winter St. The two CHOM projects will be permitted separately.

Portions of the existing Mercy building will be removed to make way for a shared woonerf. The woonerf, although unique, is not new Portland or the development team. The European urban planning technique creates a multi-modal courtyard with a level shared walking and driving space. Combined with extensive landscaping and playful design it will create an inviting community space.

We are pleased to submit an application which will increase the available housing stock consistent with the City's Comprehensive Plan, provide onsite Workforce Housing, implement stormwater treatment, improve the Winter Street streetscape, sidewalk reconstruction, street tree plantings and provide community space in the West End.

NewHeight Redfern LLC and the design team look forward to your review of this exciting project.

Sincerely,



William H. Savage, P.E.
Project Manager
Acorn Engineering, Inc.

Documents:

- Section A: Cover Letter
- Section B: Level III Final Site Plan Application & Checklist
- Section C: Right, Title, Interest (Deed)
- Section D: Zoning Assessment
- Section E: Easements
- Section F: Waivers
- Section G: Financial Capacity
- Section H: Technical Capacity
- Section I: Conformity with Land Use Ordinance
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Wastewater Capacity Letter
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utilities
- Section Q: Construction Management Plan
- Section R: Solid Waste
- Section S: Traffic and Parking Analysis
- Section T: Traffic Demand Management

Drawings:

- Civil Site Plan Set
- Landscaping Plan Set
- Architectural Plan Set



Right, Title, or Interest

The Quitclaim Deed with Covenant is attached to this section providing the applicant with Right, Title and Interest in the property.

DLN: 1002040088241

QUITCLAIM DEED WITH COVENANT

DLN# _____

MERCY HOSPITAL, a.k.a. NORTHERN LIGHT MERCY HOSPITAL, a Maine non-profit corporation with a principal place of business in Portland, Cumberland County, Maine, for consideration paid, grants to **NEWHEIGHT REDFERN LLC**, a Maine limited liability company with a principal place of business in Portland, Cumberland County, with a mailing address of 167 Newbury Street, Suite 503, Portland, ME 04101, Maine, with quitclaim covenant, the land in **Portland**, Cumberland County, Maine, described as follows:

PARCEL 1 (102 STATE STREET): A certain lot or parcel of land, with the buildings thereon, lying on the southerly side of Spring Street in said Portland described as follows

Beginning at a point of intersection of the northeasterly sideline of Winter Street with the southeasterly sideline of Spring Street;

Thence N48°34'00"E along the southeasterly sideline of said Spring Street 125.93 feet to the southerly line of land now or formerly of Town Houses at Eaton Shaw Block Condominiums (Cumberland County Registry of Deeds ("CCRD") Book 27136, Page 174);

Thence the following courses and distances along said Town Houses at Eaton Shaw Block Condominiums:

S38°02'31"E 65.99 feet;

N49°42'19"E 82.20 feet;

S40°38' 15"E 15.59 feet;

N49°21'45"E 63.93 feet to the southwesterly sideline of State Street;

Thence S40°10'00"E along the southwesterly sideline of said State Street 125.89 feet to land now or formerly of State Street Housing Preservation Corporation (CCRD Book 21735, Page 205);

Thence S49°51'30"W along the northerly line of said State Street Housing Preservation Corporation 269.62 feet to the northeasterly sideline of Winter Street;

Thence N40°11'30"W along the northeasterly sideline of Winter Street 203.81

MAINE REAL ESTATE TAX PAID

feet to the point of beginning.

THE ABOVE DESCRIBED PARCEL 1 IS SUBJECT TO the following recorded in CCRD:

1. Rights and easements as set forth in an instrument from Mercy Hospital to Central Maine Power Company and New England Telephone and Telegraph Company dated August 22, 1966, CCRD Book 2978, Page 31.
2. Rights and easements set forth in an instrument from Mercy Hospital to Central Maine Power Company and New England Telephone and Telegraph Company dated March 6, 1968, CCRD Book 3046, Page 716.
3. Easement Deed from Mercy Hospital to Central Maine Power Company dated November 21, 1977, CCRD Book 4171, Page 66.
4. Terms and conditions set forth in a deed from the City of Portland to Mercy Hospital dated December 18, 1980, CCRD Book 4925, Page 317 and noted as: "The Mercy Hospital, its successors and assigns, will not discriminate on the basis of race, color, creed, sex, or national origin in the sale, lease or rental, or in the use or occupancy of the property described herein or any improvements erected or to be erected thereon, or any part thereof. Said covenant is to run with the land in perpetuity."
5. The following matters shown on a plan entitled "ALTA/ACSM Land Title Survey, 102, 120 (AKA 144) & 148 State Street, Portland, Cumberland County, Maine made for Mercy Hospital and Eastern Maine Healthcare Systems," dated February 27, 2013, revised September 20, 2013, prepared by Owen Haskell, Inc.:
 - a. Pavement and curbing encroach .5 feet +/- onto northerly abutter;
 - b. Overhead wires crossing premises from Winter and Spring Streets; and
 - c. Note 3 regarding location of utilities.

PARCEL 2 (120 STATE STREET, A/K/A 144 STATE STREET, AND 148 STATE STREET): A certain lot or parcel of land, with the buildings thereon, lying on the southwesterly side of State Street in said Portland described as follows:

Beginning at a point of intersection of the southwesterly sideline of State Street with the northwesterly sideline of Spring Street;

Thence S48° 56' 10" W along the northwesterly sideline of said Spring Street 270.49 feet to the northeasterly sideline of Winter Street;

Thence N 40° 09' 30" W along the northeasterly sideline of said Winter Street 400.49 feet to land now or formerly of the Portland Club;

Thence N 50° 12' 30" E along land of said Portland Club 272.95 feet to the southwesterly sideline of said State Street;

Thence S 39° 47' 50" E along the southwesterly sideline of said State Street 394.48 feet to the point of beginning

THE ABOVE DESCRIBED PARCEL 2 IS SUBJECT TO the following recorded in CCRD:

1. Rights and easements from Mercy Hospital to Central Maine Power Company and New England Telephone and Telegraph Company as set forth in an instrument dated March 6, 1968, CCRD Book 3046, Page 716.

2. Terms and conditions set forth in a deed from the Portland Renewal Authority to Mercy Hospital dated June 4, 1975, CCRD Book 3692, Page 343, as affected by a Certificate of Completion by the Portland Renewal Authority dated March 22, 1982, CCRD Book 4934, Page 96 and noted as: "FIFTH: The Grantee agrees for itself and any successor in interest not to discriminate upon the basis of race, creed, color, or national origin in the sale, lease, or rental or in the use or occupancy of the property hereby conveyed or any part thereof or of any Improvements erected or to be erected thereon or any part thereof."

3. Easement Deed from Mercy Hospital to Central Maine Power Company dated November 21, 1977, CCRD Book 4171, Page 66.

4. Easement and Memorandum of Agreement by and between Mercy Hospital and Time Warner Cable of Maine dated November 18, 1998, CCRD Book 15936, Page 165.

5. Easement Deed from Mercy Hospital to Central Maine Power Company and Verizon New England, Inc. dated May 24, 2001, CCRD Book 16391, Page 232.

6. Easement from Mercy Hospital to Central Maine Power Company and Northern New England Telephone Operations, LLC dated September 4, 2010, CCRD Book 28512, Page 45.

7. The following matters shown on a plan entitled "ALTA/ACSM Land Title Survey, 102, 120 (AKA 144) & 148 State Street, Portland, Cumberland County, Maine made for Mercy Hospital and Eastern Maine Healthcare Systems," dated February 27, 2013, revised September 20, 2013, prepared by Owen Haskell, Inc.:

- a. Pavement and parking encroach 3 feet +/- onto northerly boundary;
- b. Overhang 3 feet +/- into Spring Street;
- c. Overhead wires cross onto premises from Spring and Winter Streets;
- d. Granite wall encroaches into right of way of State Street; and
- e. Note 3 regarding location of utilities.

For Grantor's source of title, reference may be had to the deeds recited in Exhibit A attached hereto.

EXHIBIT A

For Grantor's source of title to the above-described premises, reference may be had to the following deeds recorded in the Cumberland County Registry of Deeds:

PARCEL 1 (102 STATE STREET):

- a. Deed from Basil Ballides and Katherine Ballides dated February 14, 1957, recorded in Book 2337, Page 148.
- b. Deed from Freda M. Morrill dated November 10, 1961, recorded in Book 2642, Page 436.
- c. Deed from Aman Maria dated December 12, 1961, recorded in Book 2649, Page 180.
- d. Deed from George H. Hinckley, Guardian of Arthena Wiggin, dated February 1, 1962, recorded in Book 2657, Page 71.
- e. Deed from Fernando P. Giobbi and Margaret O. Giobbi dated April 23, 1962, recorded in Book 2669, Page 105.
- f. Deed from Thomas J. Donahue, Charles R. O'Connell, Jr. and Edith M. O'Connell dated November 10, 1964, recorded in Book 2863, Page 456.
- g. Deed from Sigmund S. Dyro and Mary A. Dyro dated July 30, 1965, recorded in Book 2911, Page 334,
- h. Deed from Marie V. Hetu dated September 30, 1965, recorded in Book 2924, Page 259.
- i. Deed from James A. Desmond, Conservator of Bertha Smite, dated November 3, 1965, recorded in Book 2932, Page 500.
- j. Deed from Mary G. Smith, also known as Mary Morgan Smith, dated March 27, 1970, recorded in Book 3121, Page 446.
- k. Deed from Theodore R. Brownlee dated October 31, 1970, recorded in Book 3149, Page 363.
- l. Deed from the City of Portland dated December 18, 1980, recorded in Book 4925, Page 317.

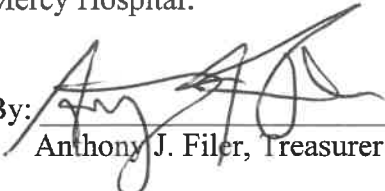
PARCEL 2 (120 STATE STREET, A/K/A 144 STATE STREET, AND 148 STATE STREET):

- a. Deed from Alice A. Oxnard dated June 9, 1948, recorded in Book 1914, Page 495.

- b. Deed from Harriet E. Frates dated October 8, 1948, recorded in Book 1930, Page 450.
- c. Deed from St. Joseph's Convent and Hospital dated January 30, 1950, recorded in Book 1989, Page 3.
- d. Deed from Guy A. Shaw dated October 1, 1952, recorded in Book 2103, Page 238.
- e. Deed from Earle W. Watson and Maybelle C. Watson dated November 30, 1953, recorded in Book 2156, Page 232.
- f. Deed from Raymond L. Baillargeon and Cora M. Baillargeon dated September 5, 1963, recorded in Book 2773, Page 347.
- g. Deed from James B. McKenney and Beatrice M. McKenney dated May 2, 1964, recorded in Book 2821, Page 441.
- h. Deed from John Malconian dated July 1, 1964, recorded in Book 2833, Page 323.
- i. Deed from Samuel Levey and Helen G. Levine dated November 5, 1965, recorded in Book 2932, Page 498.
- j. Deed from Irene L. Fisher dated August 1, 1964, recorded in Book 2942, Page 39.
- k. Indenture with Portland Renewal Authority dated June 4, 1975, recorded in Book 3692, Page 343.
- l. Deed from Robert M. Morrison dated December 2, 1975, recorded in Book 3779, Page 204.

IN WITNESS WHEREOF, Mercy Hospital, has caused the foregoing instrument to be signed in its corporate name and sealed by its undersigned officer, duly authorized, this 25th day of February, 2020.

Mercy Hospital:

By: 
Anthony J. Filer, Treasurer

GFE

STATE OF MAINE

Penobscot County

February 25, 2020

Personally appeared before me the above named Anthony J. Filer, Treasurer of Mercy Hospital, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said non-profit corporation.


Notary Public/Attorney at Law

Jane C. Black
Print or type name as signed

Jane C. Black
Notary Public, State of Maine
My Commission Expires September 13, 2023

SEAL

Received
Recorded Register of Deeds
Feb 27, 2020 01:07:06P
Cumberland County
Nancy A. Lane



ZONING ANALYSIS Relevant Zone(s) B3

All Projects:

	Required	Proposed
Lot Size	None	2.48 acres
Area Per Dwelling Unit	None	0.014
Minimum Street Frontage	15'	400' / 270' / 394'
Front Yard Minimum	N/A	N/A
Front Yard Maximum	5'	21' / 5' / 4.5'
Rear Yard	None	10.5' min
Yard Right	None	1.99' min
Yard Left	None	5.35' min.
Side Street Setback	N/A	N/A
Step Back	30' @ 45' Winter	30' @ 45' Winter
Maximum Lot Coverage	100%	92.2%
Minimum Lot Coverage	N/A	N/A
Maximum Height	85' /45'*	86' (existing)
Open Space	N/A	7.8%
Maximum Impervious Area	100%	92.2%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	TBD	51
Loading Bays	None	2
Other 1		
Other 2		
Other 3		

Summary of Written Easements

Existing Easements

- The following agreements are listed within the deed recorded at the Cumberland County Registry of Deeds:
 - o Easement and Memorandum of Agreement and Mercy Hospital and Time Warner of Maine dated November 18, 1998 and recorded in Book 5936, Pages 65-67.
 - o Easement Deed by Mercy Hospital and Central Maine Power Company dated November 21, 1977 and recorded in Book 4171, Page 66.
 - o Easement Deed by Mercy Hospital and Central Maine Power Company dated September 4, 2010 and recorded in Book 28512, Page 45.
 - o Easement Deed by Mercy Hospital and Central Maine Power Company dated March 6, 1968 and recorded in Book 3046, Page 716.
 - o Easement Deed by Mercy Hospital and Central Maine Power Company dated August 22, 1966 and recorded in Book 2978, Page 31.
 - o Easement Deed by Mercy Hospital and Central Maine Power Company dated May 24, 2001 and recorded in Book 639, Page 232.

Proposed Easements

- The following agreement ~~are~~is proposed as part of the project:
 - o Easement Deed by NewHeight Redfern, LLC and Central Maine Power Company for access and maintenance of proposed electric transformer and/or subsurface utility vault and associated electric utility conduits.



0000490

BK 15936PG 165

EASEMENT AND MEMORANDUM OF AGREEMENT

THE STATE OF MAINE

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF CUMBERLAND

THAT **Mercy Hospital**, a Maine corporation (herein called the "Grantor"), acting herein by and through its duly authorized general manager, in consideration of, and pursuant to, that certain Standard Form of Service and Easement Agreement dated November 18, 1998 (the "Agreement") by and between Grantor, and **Time Warner Cable of Maine** (herein called the "Grantee") and in consideration of One and no/100 Dollars and other good and valuable consideration, which consideration is hereby confessed and acknowledged by the Grantor, has GRANTED, BARGAINED, SOLD AND CONVEYED, and does hereby GRANT, BARGAIN, SELL AND CONVEY, unto the Grantee, its successors and assigns, an easement and right-of-way in, on, over, under, through and across all that certain parcel of land described on Exhibit A hereto and all the improvements now or hereafter situated (said real property, improvements, easements and appurtenances being herein collectively called the "Premises"), and every part and portion thereof (including, without limitation, all improvements and fixtures included therein), for the purposes of (i) providing cable television services to the Premises; and (ii) owning, installing, operating, upgrading, maintaining, relocating, removing and replacing the "Services Delivery System" (which is all wires, cables, poles, conduits, pipes, antennas, signal converters, signal decoders, facilities and equipment on the Premises from time to time which are necessary or desirable, in the opinion of the Grantee, to make Services available to the Premises (said purposes being hereinafter collectively called the "Easement Purposes")).

This Easement and Memorandum of Agreement is executed and delivered by Grantor and Grantee for the purpose of evidencing of record and giving notice of the existence of the Agreement, to which reference is made and the same is incorporated herein as fully and for all purposes as if set forth in this Easement and Memorandum of Agreement in full. If any conflict shall exist between this Easement and Memorandum of Agreement and the Agreement, the latter shall control.

TO HAVE AND TO HOLD said easement and right to serve, together with all the rights and appurtenances thereunto in anywise belonging, unto the Grantee, its successors and assigns, for the duration of the term, including any extensions and renewals, stated in the Agreement; and the Grantor does hereby bind itself, its successors and legal representatives, to warrant and forever defend, all and singular, said easement and right to serve herein granted, unto the Grantee, its successors and assigns, against the claims of all persons whomsoever lawfully claiming or to claim the same, or any part thereof, subject to the matters set forth herein.

BK 15936 PG 166

EXECUTED on this 18 day of Nov 1998.

Mercy Hospital
a Maine corporation
By: [Signature]
Name: Thomas Gruber
Title: Vice President, Clinical Services

THE STATE OF MAINE

COUNTY OF CUMBERLAND

This instrument was acknowledged before me on the 18 day of Nov 1998, by Thomas Gruber, Vice President, Clinical Services of Mercy Hospital, a Maine corporation, on behalf of said Mercy Hospital.

My Commission Expires:

12/6/2002

(SEAL)

[Signature]
Notary Public in and for
the State of Maine
GEORGIA E. JONES
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES
DECEMBER 6, 2002

(Printed Name of Notary)

BK 15936 PG 167

EXHIBIT A

**LEGAL DESCRIPTION OF PREMISES
COVERED BY EASEMENT AND MEMORANDUM OF AGREEMENT**

**MERCY HOSPITAL
144 State Street
Portland, ME 04101**

Legal Description of Premises attached.

**RECEIVED
RECORDED REGISTRY OF DEEDS**

2001 JAN -3 AM 8: 33

CUMBERLAND COUNTY

John B O'Brien

Mercy Hospital, a corporation organized and existing by law and having an office in the City

of Portland, Cumberland County, Maine,
~~(being considered)~~ for consideration paid, grant to CENTRAL MAINE POWER COMPANY, a Maine corporation having its principal office at Edison Drive, Augusta, Maine 04336, the right and easement to erect, bury, maintain, repair, rebuild, operate and patrol electric transmission and distribution wires and/or cables, consisting of suitable and sufficient poles with wires strung upon and extending between the same and/or underground cables buried under the surface, together with all necessary fixtures and appurtenances, over, across and/or under the surface of my land in the ~~Town~~/City of Portland, Cumberland County, Maine, the location of said poles and/or underground cables to be as follows:

for area lighting in Mercy Hospital Parking Lot #1 on land of this Grantor lying on the northeasterly side of Winter Street, specifically, poles #8.1, 8.2, 8.3, 8.4, 8.13 and 8.15 as shown on plan of Blue Rock Industries, Westbrook, Maine titled Mercy Hospital Parking Lot Reconstruction, Lot #1, scale 1" = 10', dated 6/8/77 by G.M.H.. This plan on file at Central Maine Power Company Engineering Office, 162 Canco Road, Portland, Maine.

This location crosses a portion of the premises conveyed to the Grantor(s) by deed of _____, dated _____, 19____, recorded in the _____ County Registry of Deeds, Book _____, Page _____.

Together with the right to cut down, keep trimmed and control such trees, branches and underbrush as the Grantee believes may interfere with the operation and maintenance of its wires and/or cables; the right to restrict the construction of buildings or structures within _____ feet of its wires and/or cables; the right to keep the surface of the ground above said underground cables and other electrical equipment free from structures and growth which, in the judgment of the Grantee, would interfere with or endanger the proper operation or maintenance of said underground cables; and the right to enter upon the Grantor's premises for any and all of the foregoing purposes.

Mercy Hospital has caused this instrument to be sealed with its corporate seal and ~~signed~~ signed in its corporate name by Howard R. Buckley, its Executive ~~(and its authorized agent)~~ of this and Grantor(s), of the premises, and its heirs and assigns, by descent and otherwise rights. Director, hereunto duly authorized

~~WITNESSES~~ _____ and _____ this 21st day of NOVEMBER, 19 77.

Signed, Sealed and Delivered
 in the presence of

Margaret M. Haley

MERCY HOSPITAL

By: *Howard R. Buckley*

Its Executive Director

STATE OF MAINE

Cumberland ss.

Nov. 21

1977

Personally appeared the above-named Howard R. Buckley and acknowledged this instrument to be his free act and deed, ~~in his own right~~ in his said capacity and the free act and deed of said corporation, before me,

MY COMMISSION EXPIRES
 MARCH 14, 1980

Margaret M. Haley
 Notary Public
 Justice of the Peace

STATE OF MAINE

CUMBERLAND, ss.

REGISTRY OF DEEDS

Received at 8 H 30 M A M on FEB 3 1978 and recorded in
 Book 4171 Page 66 Attest

Edward D. Brewster Register

Easement

WO# 300436353

Form 1199, Rev. 07/08

Mercy Hospital, a Maine corporation with a mailing address of 144 State St, Portland, ME, 04101 (Grantor(s)), for consideration given, grants to CENTRAL MAINE POWER COMPANY, a Maine Corporation with an office at 83 Edison Drive, Augusta, Maine 04336, and Northern New England Telephone Operations, LLC, a limited liability company organized under the laws of the State of Delaware, and having its principal place of business at 521 East Moorehead Street, Suite 250, Charlotte, NC 28202, and their respective successors and assigns (collectively Grantees), with warranty covenants, the right and easement to erect, bury, maintain, rebuild, respace, patrol, operate, and remove and do all other actions involving electric and communication distribution equipment and facilities, consisting of poles, wires and cables, anchors, guywires or pushbraces, together with all necessary fixtures and appurtenances over, across and under a portion of the surface of the land of the Grantor(s) in the City/Town of Portland, Cumberland County, Maine. The said equipment and facilities are attached to a line commencing at Pole/Pad Pole 11, Winter Street, Portland and extending to include Pole(s)/Pad(s) Poles 11.1 & 11.2, Winter Street. This easement affects land conveyed to the Grantor(s) in a deed from Robert M. Morrison, dated December 04, 1975, and recorded in the Cumberland County Registry of Deeds in Book 3779 Page 204. This easement is an easement in gross and is not for the sole purpose of serving the Grantor(s) or Grantor's land. The rights granted herein include the right to cut down and trim trees and other vegetation and to use formulations registered with the Environmental Protection Agency or its successor to eliminate vegetation, and modify the growth of trees, which vegetation or growth, in the judgment of Grantees, may interfere with the operation and maintenance of its equipment or facilities; and the right to restrict the construction of buildings, structures and improvements within 15 feet of its equipment and facilities; and the right to keep the surface of ground above its underground cables and other electrical equipment free from structures, improvements and growth which, in the judgment of the Grantees, may interfere with the proper operation or maintenance of said underground cables; and the right to enter upon the land of the Grantor(s) for any and all of the foregoing purposes.

WITNESS the hand(s) and seal(s) of Grantor(s) duly authorized representatives on 9/4, 10.

Signed, Sealed and Delivered in the presence of:

Mercy Hospital

Eileen Skinner
Eileen Skinner, President & CEO

State Of Maine

County Of Cumberland

The above-named Eileen F. Skinner, personally appeared before me this 4th day of September, 2010 and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of said Mercy Hospital.

Robinson R. Poulin
Notary Public/Attorney

Printed Name:

ROBIN R. POULIN
Notary Public, Maine

My Commission Expires My Commission Expires December 3, 2011

SEAL

Received
Recorded Register of Deeds
Feb 09, 2011 08:33:57A
Cumberland County
Pamela E. Lovley

KNOW ALL MEN BY THESE PRESENTS, that MERCY HOSPITAL, a corporation organized and existing by law and having an office in the City

of Portland, in the County of Cumberland

and State of Maine in consideration of One Dollar and other valuable consideration (the sum being less than one hundred dollars) paid by CENTRAL MAINE POWER COMPANY, a Maine corporation and NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY, a New York corporation, the receipt whereof is hereby acknowledged, does hereby give, grant, bargain, sell and convey unto the said Central Maine Power Company and New England Telephone and Telegraph Company, their successors and assigns, the right and easement to construct, erect, rebuild, operate, maintain and remove electric distribution and communication lines for the transmission of electricity and intelligence; together with the necessary poles, wires, cables, cross-arms, braces, anchors, guys and other electrical equipment and appurtenances connected therewith, over, along and across premises owned by the Grantor(s) in the City/Town of Portland, County of Cumberland and State of Maine, along the route as now staked out, extending in a southeasterly direction from pole 27 Spring Street to pole 27.1

Also the right to cut down and keep trimmed and/or spray or treat with a chemical preparation of the Grantee's selection such trees, branches and underbrush as in the judgment of the Grantee, interfere with or endanger the proper operation and maintenance of the lines constructed along the above described location, together with the right to enter upon the Grantor's premises for any and all of the foregoing purposes.

It is understood and agreed that the rights and easements hereby conveyed are to be jointly owned by Central Maine Power Company and New England Telephone and Telegraph Company, their successors and assigns. If either Central Maine Power Company or New England Telephone and Telegraph Company, or the successors or assigns of either, shall relinquish or abandon the rights and easements hereby conveyed, the same shall become the sole property of the remaining company.

TO HAVE AND TO HOLD the above granted rights and easements to the said Central Maine Power Company and New England Telephone and Telegraph Company, their successors or assigns, to their own use and behoof forever.

IN WITNESS WHEREOF, the said Mercy Hospital has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Donald F. Plunkett, its Executive Director, hereunto duly authorized,

and Merle R. Mahany wife (husband) of the said Donald F. Plunkett joining in this instrument as grantor(s) and relinquishing and conveying all (-----) rights by descent and all other rights in the above described rights and easements have hereunto set their hands and seals this March day of 1968.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF

Merle R. Mahany

MERCY HOSPITAL

By Donald F. Plunkett
Its Executive Director

STATE OF MAINE
County of Cumberland

Personally appeared the above named Donald F. Plunkett

and acknowledged the foregoing instrument to be his free act and deed, March 10 in his said capacity and the free act and deed of said corporation, before me, Merle R. Mahany

41-1

STATE OF MAINE

CUMBERLAND, ss.

REGISTRY OF DEEDS

Received at 2 P.M. on JUL 1 1968 and recorded in
Book 3046 Page 716 Attest

Seward P. H. [Signature]

Register

4508

1-58
1-586

13891

31

KNOW ALL MEN BY THESE PRESENTS, that MERCY HOSPITAL, a corporation organized and existing by law and having an office in the City

of Portland, in the County of Cumberland

and State of Maine in consideration of One Dollar and other valuable consideration (the sum being less than one hundred dollars) paid by CENTRAL MAINE POWER COMPANY, a Maine corporation and NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY, a New York corporation, the receipt whereof is hereby acknowledged, does hereby give, grant, bargain, sell and convey unto the said Central Maine Power Company and New England Telephone and Telegraph Company, their successors and assigns, the right and easement to construct, erect, rebuild, operate, maintain and remove electric distribution and communication lines for the transmission of electricity and intelligence; together with the necessary poles, wires, cables, cross-arms, braces, anchors, guys and other electrical equipment and appurtenances connected therewith, over, along and across premises owned by the Grantor(s) in the City/Town of Portland

County of Cumberland and State of Maine, along the route as now staked out, extending in a northeasterly direction from Winter Street to pole 8.1, thence northerly to pole 8.2; another line extending northeasterly from Winter Street to pole 9.1, thence northwesterly to pole 9.2; another line extending westerly from Spring Street to pole 26.1; another line extending southwesterly from State Street to pole 8.1; also another line extending southwesterly from State Street to pole 9.1, thence southerly to pole 9.2, thence southeasterly to pole 9.4.

Also the right to cut down and keep trimmed and/or spray or treat with a chemical preparation of the Grantees' selection such trees, branches and underbrush as in the judgment of the Grantees, interfere with or endanger the proper operation and maintenance of the lines constructed along the above described location, together with the right to enter upon the Grantor's premises for any and all of the foregoing purposes.

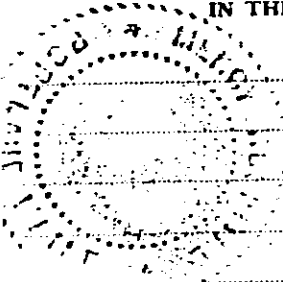
It is understood and agreed that the rights and easements hereby conveyed are to be jointly owned by Central Maine Power Company and New England Telephone and Telegraph Company, their successors and assigns. If either Central Maine Power Company or New England Telephone and Telegraph Company, or the successors or assigns of either, shall relinquish or abandon the rights and easements hereby conveyed, the same shall become the sole property of the remaining company. This easement may be terminated on ninety (90) days written notice.

TO HAVE AND TO HOLD the above granted rights and easements to the said Central Maine Power Company and New England Telephone and Telegraph Company, their successors or assigns, to their own use and behoof forever.

IN WITNESS WHEREOF, the said Mercy Hospital has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Donald F. Plunkett, its Executive Director, hereunto duly authorized,

and ~~the wife (husband) of the said~~
joining in this easement as grantor(s) and relinquishing and conveying all () rights by descent and all other rights in the above described rights and easements have hereunto set their hands and seals this
22nd day of August, 1966.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF



MERCY HOSPITAL

By Donald F. Plunkett
Its Executive Director

P.K. 11-285

STATE OF MAINE

County of CumberlandPersonally appeared the above named Donald F. Plunkett

and acknowledged the foregoing instrument to be his free act and deed, before me, in his said capacity and the free act and deed of said corporation, before me,

Paul R. Mahoney
Justice of the Peace
Hallowell, Maine

STATE OF MAINE

CUMBERLAND, ss.

Received at 9 H - M. U. M on OCT 26 1966 and recorded in
Book 2978 Page 31 Attest

Edward R. H. Jr.
Register

0039564

Corporation Easement Deed

BK 1639 | PG 232

Underground Line Easement

MERCY HOSPITAL, a MAINE corporation with a mailing address of 144 State Street, Portland, ME, 04101 ('Grantor(s)'), for consideration given, grants to CENTRAL MAINE POWER COMPANY, a Maine Corporation with an office at 83 Edison Drive, Augusta, Maine 04336, and VERIZON NEW ENGLAND, INC. A New York corporation with a mailing address of 125 High Street, Boston, Massachusetts, 02110, and their respective successors and assigns (collectively 'Grantees'), with warranty covenants, the right and easement to erect, bury, maintain, rebuild, respace, patrol, operate, and remove and do all other actions involving electric and communication distribution equipment and facilities, consisting of wires, cables, together with all necessary fixtures and appurtenances under the surface of the land of the Grantor(s) in the City/Town of Portland, Cumberland County, Maine. The said equipment and facilities are attached to a line commencing at Pole(s)/Pad(s) 28, Winter Street, Portland and extending to include Pole(s)/Pad(s) 28.1 to serve Grantor(s) and others. This easement affects land or rights conveyed to the Grantor(s) in a deed from Portland Renewal Authority, dated August 22, 1966, and recorded in the Cumberland County Registry of Deeds in Book 2978 Page 31. The rights granted herein include the right to keep the surface of ground above its underground cables and other electrical equipment free from structures, improvements and growth which, in the judgment of the Grantees, may interfere with the proper operation or maintenance of said underground cables; and the right to enter upon the land of the Grantor(s) for any and all of the foregoing purposes.

WITNESS the hand(s) and seal(s) of Grantor(s) duly authorized representatives on May 24, 2001.

Signed, Sealed and Delivered in the presence of:

Witness(es)

Linda Lockart
Printed LINDA LOCKART

MERCY HOSPITAL

Jeffrey Thomas
Jeffrey Thomas
Manager
Jeffrey Thomas

State of Maine

County of Cumberland

The above-named Jeffrey Thomas, personally appeared before me this 24 day of MAY, 2001 and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said MERCY HOSPITAL.

WR# 0004101841 Acct# 441-1670410-001
WO# 041-09695

Beryl C McGrath
Notary Public/Attorney
Printed Name: Beryl C. McGrath
My Commission Expires: 9-23-2006

RECEIVED
RECORDED REGISTRY OF DEEDS
2001 JUN -8 AM 9: 23
CUMBERLAND COUNTY
John B O'Brien

BERYL C. McGRATH
Notary Public, Maine
My Commission Expires September 23, 2006

SEAL

[PROPOSED DEED DRAFT WITH EASEMENTS]

QUITCLAIM DEED WITH COVENANT

Maine Statutory Short Form

KNOW ALL PERSONS BY THESE PRESENTS THAT **NEWHEIGHT REDFERN LLC**, a Maine limited liability company, of Portland, County of Cumberland, State of Maine, for consideration paid, grants to **[WINTER LANDING LLC]**, a Maine limited liability company, of Portland, County of Cumberland, State of Maine, whose mailing address is c/o Community Housing of Maine, Inc., One City Center, 4th floor, Portland, Maine 04101, with **QUITCLAIM COVENANT**, the land in Portland, County of Cumberland, and State of Maine known as 91 Winter Street, Portland, Maine and more particularly described in **Exhibit A** attached hereto and made a part hereof.

IN WITNESS WHEREOF, the said NewHeight Redfern LLC has caused this instrument to be signed and sealed by its duly authorized signatory this _____ day of _____, 20__.

WITNESS:

NEWHEIGHT REDFERN LLC

By: _____
Erin Cooperrider, its Manager

By: _____
Jonathan Culley, its Manager

STATE OF MAINE

COUNTY OF CUMBERLAND

_____, 20__

Then personally appeared the above named Erin Cooperrider, and acknowledged the foregoing instrument to be her free act and deed in said capacity, and the free act and deed of NewHeight Redfern LLC, before me.

Attorney at Law/Notary Public

Printed Name

Exhibit A

[insert legal description of property to be conveyed – with reference to subdivision plan (the “Plan”)]

The property is conveyed subject to, and with the benefit, of the following:

SUBJECT TO the following perpetual easements which are hereby created and reserved:

1. EXCEPTING AND RESERVING to Grantor, its successors and assigns, as an appurtenant easement for the benefit of Grantor’s remaining land (“Grantor’s Remaining Land”), which remaining land is a portion of the land described in a deed from Mercy Hospital, a/k/a Northern Light Mercy Hospital to Grantor dated February 25, 2020, and recorded in the Cumberland County Registry of Deeds at Book 36459, Page 218, such appurtenant easement being specifically the parcel of land shown on the Plan as the sixteen (16’) foot wide emergency access lane between Winter Street and the twenty-two (22’) drive aisle (the “Access Easement Area”), and more particularly described as follows: **[insert legal description of easement area if available]**.

The rights excepted and reserved over the Access Easement Area include the right and easement for ingress and egress by foot and vehicles over and across the Access Easement Area, including the rights of installation, maintenance, repair and replacement of any improvements reasonably necessary or useful to accomplish the foregoing in, over and across the Access Easement Area, including the right to enter onto the Access Easement Area to perform all work reasonably necessary or convenient for exercising such rights, including, without limitation, excavating, grading, re-grading, trenching, and removal of vegetation which would be adverse to or interfere with the utility facilities or the access way. Neither Grantee nor Grantor, their successors and assigns, shall erect or construct any building of any kind within the Access Easement Area, and shall not otherwise unreasonably interfere with the other’s use of the Access Easement Area without the written consent of the other party. Neither Grantor nor Grantee shall park or permit the parking of vehicles or storage any kind within the Access Easement Area. Grantor shall pay for the costs of ordinary maintenance of the Access Easement Area, including all costs of maintenance and upkeep (including snowplowing, sanding and snow and ice removal). Grantee shall pay for the costs of maintaining landscaping of and along the driveway area as is suitable for maintaining an attractive appearance consistent with similar developments. Grantor and Grantee shall share the costs, by an equal division on the basis of one share for each of the properties that are developed and actually using the Access Easement Area, for capital

replacement and repair of shared facilities; **provided, however**, that if by the actions of either Grantor or Grantee (or any of the other owners of properties developed and using the Access Easement Area) the Access Easement Area requires improvement, reconstruction, maintenance or repair (including if required by the City of Portland or other governmental agency in connection with any approvals or permits), the responsible party shall bear the full expense of such improvement, reconstruction, maintenance and repair.

ALSO EXCEPTING AND RESERVING within, over and under the Access Easement Area the right and easement for Grantor or the providing utility or service company, or governmental agency or authority, to install, use, maintain, repair, improve, replace and reconstruct utility lines, services, conduits and similar customary appurtenances within the Access Easement Area for providing any and all types of utility services (including without limitation electrical, telecommunications, sewer, water, and gas) to Grantor's Remaining Land. The costs and expenses for any such facilities and installations which serve more than one property shall be shared equally by the properties using the same, and any such facilities and installations serving only one property shall be the sole cost and expense of the property which is so served.

All parties responsible for payment shall pay their share of costs and expenses within thirty (30) days of the date any statement or invoice showing the actual and verifiable costs relating to such installation, maintenance, repair or replacement is presented for payment. If any such responsible party fails to pay their pro-rata share, such share of the costs and expenses shall constitute a lien upon the property of such responsible party from the date of such statement until paid or otherwise terminated.

2. EXCEPTING AND RESERVING to Grantor, its successors and assigns, as an appurtenant easement for the benefit of Grantor's Remaining Land, the right and easement for Grantor or the providing utility or service company, or governmental agency or authority, to install, use, maintain, repair, improve, replace and reconstruct the necessary and appurtenant utility infrastructure currently located or to be located on the property conveyed hereby and serving Grantor's Remaining Land, including without limitation in the location(s) shown on the Plan.
3. EXCEPTING AND RESERVING to Grantor, its successors and assigns, as an appurtenant easement for the benefit of Grantor's Remaining Land, the right and easement for Grantor to access for all purposes consistent with pedestrian access and parking those portions of the property conveyed hereby upon which parking spaces and sidewalks are located, including without limitation those

parking spaces and sidewalks shown on the Plan (the "Parking and Sidewalk Easement Area"). Such easement shall include the right of Grantor to exclusively control, including the right to lease, the parking spaces located within the Parking and Sidewalk Easement Area, to enter the Parking and Sidewalk Easement Area to perform all work reasonably necessary or convenient for exercising such rights, including, without limitation, excavating, grading, re-grading, and removal of vegetation which would be adverse to or interfere with the rights granted hereby. Neither Grantee nor Grantor, their successors and assigns, shall erect or construct any building of any kind within the Parking and Sidewalk Easement Area, and shall not otherwise unreasonably interfere with the other's use of the Parking and Sidewalk Easement Area without the written consent of the other party.

4. EXCEPTING AND RESERVING to Grantor, its successors and assigns, as an appurtenant easement for the benefit of Grantor's Remaining Land, an access and maintenance easement (the "Access and Maintenance Easement") over that portion of the property conveyed hereby shown on the Plan as the "Access and Maintenance Easement Area". The Access and Maintenance Easement shall include the right of pedestrian access across the Access and Maintenance Easement Area to and from the neighboring property now owned by The Portland Club to Grantor's Remaining Land, and the right to access the Access and Maintenance Easement Area with people, machinery and equipment for the purposes of maintaining, repairing and replacing as necessary the retaining wall on Grantor's Remaining Land immediately adjacent to the Access and Maintenance Easement Area. Neither Grantee nor Grantor, their successors and assigns, shall erect or construct any building of any kind within the Access and Maintenance Easement Area, and shall not otherwise unreasonably interfere with the other's use of the Access and Maintenance Easement Area without the written consent of the other party.
5. SUBJECT TO all general notes, facts and other matters shown on the Plan.

TOGETHER WITH the following perpetual easement:

1. The easement and right of pedestrian and vehicle access to and over the twenty-two (22') drive aisle as shown on the Plan (hereinafter referred to as the "woonerf"), and more particularly described as follows: **[insert legal description of easement area if available]**.

The rights and easement granted hereby over the woonerf include the right and easement for ingress and egress by foot and vehicles over and across the woonerf. Neither Grantee nor Grantor, their successors and

assigns, shall erect or construct any building of any kind within the woonerf except as may be shown on the Plan, and shall not otherwise unreasonably interfere with the other's use of the woonerf without the written consent of the other party. Grantor shall pay for the costs of ordinary maintenance of the woonerf, including all costs of maintenance and upkeep (including snowplowing, sanding and snow and ice removal, and including maintaining any landscaping in the woonerf. Grantee shall lease from Grantor, and pay market rate rent for any parking spaces used in the woonerf.

All of the easements, rights, terms, provisions and covenants reserved, granted, and set forth herein shall run with the land and shall be binding upon and inure to the benefit of and be enforceable by the respective heirs, successors and assigns of Grantor and Grantee.

Request for Waivers

The following waivers are being requested for the proposed project located at 120 State Street.

1. ***Parking drive aisle width*** – Per the City of Portland Technical Manual, Standard Parking Spaces Figure 1-27, the required drive aisle width for 90-degree parking spaces is 24 feet. The project is requesting a waiver to allow for a reduction to a 22-foot drive aisle.
2. ***Landscape Preservation*** – There are six (6) existing trees on the lot along the Winter Street sidewalk / ROW that are in poor condition. We are requesting removal of these trees and a waiver for the 30% preservation of existing trees for the construction of the future buildings along Winter Street. The project is proposing to install new street trees spaced approx. 30 feet on center within the Winter Street sidewalk / ROW where there are currently none to provide replacement for the landscaping to be removed. Additional landscaping is also proposed within the project and along the State Street frontage. Please refer to the Landscaping Plan for additional information.
3. ***Parking Lot Landscaping*** – The project parking area is proposed as a “woonerf” or living street, which incorporates trees, shrubs and plantings within the area. The proposed condition of the woonerf is to provide a flush surface across the area to provide accessible routes and promote pedestrian flow through the space. As such, no curbing is proposed, however the “landscaped islands” provide separation from the parking stalls and incorporates stormwater collection leading to a proprietary modular wetland water quality treatment system.



Financial Capacity

A letter from the Applicant's bank confirming financial capacity is attached to this section.





Christine Grimando, Director
Planning and Urban Development Department
City of Portland
389 Congress Street
Portland, ME 04101

August 24, 2020

Dear Ms. Grimando:

I am writing this letter on behalf of NewHeight Redfern LLC in reference to the site development plan for the Mercy Hospital building.

Machias Savings Bank (MSB) provided the lending for the for the group's purchase of the entire Mercy Campus this past winter. Although NewHeight Redfern LLC is a newly formed entity, MSB has had previous lending experience with the principals of this entity on other large commercial construction projects. They have proven to be a highly qualified, effective, and professional development team.

MSB is aware of their current site application and would be pleased to entertain financing requests from the group for that project as well as other future projects on this site.

If you have any questions and or concerns, please do not hesitate to contact me at 207-561-3937.

Sincerely,

A handwritten signature in cursive script that reads "Francine Cram/mtr".

Francine V. Cram
Senior Vice President
Business Banking Team Leader

Technical Capacity

NewHeight Redfern, LLC is a collaboration between the principals of two Portland-based development firms, Chip Newell and Erin Cooperrider of NewHeight Group, and Jonathan Culley of Redfern Properties.

Most recently, NewHeight Group has developed two high-end condominium projects in Portland, 118 on Munjoy and Luminato, and has a third, Verdante at Lincoln Park, under construction. NHG brought materials from Europe and adapted design ideas from Washington, D.C. to raise the bar for new construction condominiums in Portland. The most recent project, Luminato Condominium, sold out six months prior to construction completion and was honored in 2017 with a Maine Real Estate & Development Association Notable Project award.

Redfern Properties develops, owns, and operates a portfolio of properties that includes the highest quality rental apartments in Portland. Redfern Properties is committed to developing innovative residential properties, and focuses on infill and other “smart-growth” development in creating unique residences and commercial spaces, while making neighborhoods and communities more vibrant and sustainable.

Ryan Senatore Architecture has designed several important multifamily residential projects in Southern and Central Maine, including the nine-story, 139-unit, concrete and steel framed high-rise apartment building known as the Hiawatha (for Redfern Properties). RSA’s residential clients include private developers as well as public housing authorities, and completed projects include both new construction and adaptive reuse of existing historic structures.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting and construction administration. Together, Acorn Engineering, Inc. and Ryan Senatore Architecture have successfully designed and permitted more than 20 level II/III projects in Portland during the past 5 years, including four for Redfern Properties: Munjoy Heights, East Bayside Lofts, The Hiawatha, and 70 Anderson.

ALA is a process-driven, landscape architecture and urban design firm committed to thoughtful, creative intervention at the intersection of environment, economics, art, and culture. ALA has worked on a number of important projects throughout Maine and the U.S. Locally, ALA has been the prime design consultant for the redevelopment of the 500-acre Scarborough Downs property in addition to numerous public and private development projects across Maine. ALA’s clients include private developers, housing authorities, and municipalities.

Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed redevelopment of the existing Mercy Hospital complex has been designed to conform to City standards where possible as well as improve upon existing non-conformities. This project conforms with the majority of the applicable standards of Portland's Land Use Ordinance Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The site is located at the corner of Spring and State Streets. State Street is classified as a minor arterial with an average annual daily traffic volume of approximately 15,550 vehicles per day. Spring Street is classified as a local road with an average annual daily traffic volume of approximately 4,820 vehicles per day (Maine DOT 2017). The project design provides 68 on-site parking spaces. Residents are expected to also use other modes of travel (i.e. walking, bicycle, transit, etc) other than automobiles. As a result, a very insignificant increase in motorized traffic is expected on either State and/or Spring Street.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the majority of design standards of Section 14-526 as demonstrated in the following narrative.

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as seen on the Site Plan.
- (ii) The proposed entrances have been located to provide ample site distance from oncoming traffic on Spring Street.
- (iii) The site does not feature drive up services.

b. Loading and Servicing:

- (i) It is anticipated that deliveries will temporarily load from either the existing loading dock area off State Street or within the proposed parking area off Spring Street.

c. Sidewalks:

- (i) A brick sidewalk exists along both State Street, Spring Street, and Winter Street and will be rebuilt to City standards as part of the project if disturbed.
- (ii) The existing sidewalk not disturbed as part of the project is not in need of rebuilding.



- (iii) The main entrances to the building will be from the proposed parking area. Pedestrian access to the site will be provided by sidewalks and within parking areas. Please refer to the Site Plan, Sheet C-10, for more information.

3. Public Transit Access:

- a. Existing Metro Bus Stop on Spring Street is located directly across the street from the project site. As a result, no transit facility is required for the project.
- b. Not applicable. See a above.
- c. Not applicable. See a above.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) See attached Section S: Traffic and Parking Analysis. Traffic Demand Management strategies will be provided under separate cover.
- (ii) Traffic Demand Management strategies will be provided under separate cover.
- (iii) The amount of parking does not exceed the minimum requirement by more than 10%.
- (iv) The parking space dimensions are in conformance with the Technical Standards. The parking aisle dimensions are not in conformance with the Technical Standards. See attached Section F: Request for Waivers for additional information (reduction from 24' to 22').
- (v) The driveway and parking areas proposed are to be constructed with pavers, bituminous pavement & brick.

b. Location and Required Number of Bicycle Parking Spaces:

- (i) The site will be served by two bicycle hitches within the courtyard near the new building entrance and additional bicycle storage within the building for a minimum total of 54 bicycle parking spaces.

c. Motorcycles and Scooter Parking:

- (i) There are no areas designated for motorcycles or scooters at this time; however, adequate room exists for the storage of these motor vehicles.

d. Snow Storage:

- (i) The Owner will have snow removed from the site when necessary.
- (ii) The Owner will have snow removed from the site when necessary to provide minimum parking requirements an pedestrian circulation.

5. Transportation Demand Management (TDM):

- a. Traffic Demand Management strategies will be provided under separate cover.



- b. Traffic Demand Management strategies will be provided under separate cover.
- c. The TDM shall comply with the City of Portland TDM standards as described in Section 1 of the Technical Manual.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. Not applicable.
- b. Not applicable.

2. Landscaping and Landscape Preservation:

a. Landscape Preservation.

- (i) The few existing trees and vegetation on site are of low value or dead. The project proposes to install new street trees, trees within the proposed parking area and various plantings along the proposed buildings and within the internal parking area. Please refer to the Landscaping Plan for specific information.
- (ii) See attached Section F: Request for Waivers.
- (iii) It is not anticipated that the project will necessitate any tree protection.
- (iv) See attached Section F: Request for Waivers.
- (v) Not applicable.

b. Site Landscaping.

(i) Landscaped Buffers:

- a. The existing loading and servicing areas, exterior dumpsters, storage areas are screened from public sidewalks, streets and adjacent properties by the existing building and retaining walls. The proposed pad mounted transformer will be screen by a combination of fencing and/or landscaping.
- b. The project includes a total of approximately 1,006 lf of frontage improvements along Winter, Spring and State Streets All development subject to required zoning setbacks shall include a minimum of six (6) shrubs per forty-five (45) linear feet of all frontages as measured along the property line, which equates to 134 shrubs. Please refer to the Landscaping Plan for additional information.
- c. Not applicable.
- d. Not applicable.

(ii) Parking Lot Landscaping:

- a. Per Section 4.6 of the Portland Maine Technical Manual, two trees are required (or one (1) tree and three (3) shrubs) per five (5) parking spaces. The project proposes 51 space, which require 20 trees to be installed in the parking area. The project proposes to install



21 trees and additional shrubs and trees planted along the parking and courtyard areas.

- b. There is no proposed area with greater than 40 parking spaces without interrupted pavement.
- c. The project parking area is proposed as a “woonerf” or living street, which incorporates trees, shrubs and plantings within the area. The proposed condition of the woonerf is to provide a flush surface across the area to provide accessible routes and promote pedestrian flow through the space. As such, no curbing is proposed, however the “landscaped islands” provide separation from the parking stalls and incorporates stormwater collection leading to a proprietary modular wetland water quality treatment system.
- d. Not applicable.
- e. See attached Section F: Request for Waivers.

(iii) Street Trees:

- a. Street trees are to be provided every 30 to 45 feet along the Winter Street frontage. A total of approximately 400 ft of frontage improvements along Winter Street are included within this project, which equates to a minimum of nine street trees. The project proposes twelve street trees. The Spring Street frontage currently has no existing street trees, with new street trees proposed at the entrance to the parking area. The landscaped area along State Street in front of the existing building proposes to add and improve the existing landscaping features. Please refer to the Landscaping Plan for additional information.
- b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

- a. Stormwater:
 - (i) The site drainage will not be directed to flow or pond onto adjacent lots. The drainage patterns will be altered to intercept the roof runoff as well as the parking area runoff, with the addition of stormwater management practices to treat and attenuate the flows.
 - (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
 - (iii) The runoff from the site into the City property will not increase from the pre-development condition.
 - (iv) Not applicable.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic standards of MEDEP Chapter 500. Please refer to sections J and K, the Stormwater Management and Erosion & Sedimentation Control Plans, respectively, for more information.
- c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.
- d. Not applicable.



- e. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.
- f. The development will provide for adequate and sanitary disposal of sewage in accordance with Section 2 of the Technical Manual.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. Not applicable.
2. Public Safety and Fire Prevention:
 - a. The site has been designed to promote safe and inviting public access.
 - b. Adequate emergency access has been provided within the parking area, emergency access lane off Winter Street, and along Winter Street, Spring Street and State Street.
 - c. One existing hydrant is located in front of the building on State Street, two existing hydrants are located on Spring Street and one existing hydrant is located on Winter Street, approximately 44 feet from the southwest property corner.
3. Availability and Adequate Capacity of Public Utilities:
 - a. Ability to Serve letters have been sent to the respective utility companies to determine adequate capacity for the project. Responses will be submitted upon receipt.
 - b. The electrical service will be wired underground through coordination with CMP, including relocating portions of the existing Winter Street overhead power lines to go underground along the Winter Street parcel frontage.
 - c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
 - d. The project will be served by connection to the public sewer system within Winter Street, Spring Street (existing connection) and State Street (existing connection).
 - e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the standards of Chapter 500.
 - f. Temporary storage and timely removals of all trash and recyclable materials will be provided.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:
 - a. See attached Section O: Architectural Design Narrative



- b. See attached Section O: Architectural Design Narrative
- c. See attached Section O: Architectural Design Narrative
- 2. Shadows:
 - a. See attached Section O: Architectural Design Narrative
- 3. Snow and Ice Loading:
 - a. The structures will not distribute snow and ice onto adjacent properties.
- 4. View Corridors:
 - a. See attached Section O: Architectural Design Narrative
- 5. Historic Resources:
 - a. The development is located in the West End historic district and therefore will conform to the standards set in Appendix 8 of the Portland Maine Design Manual. The building has yet to go through the historic preservation approval process.
 - b. The development is located within the West End Historic District. Development will be compatible with the character-defining elements of the district in the immediate vicinity.
 - c. There are no known archaeological resources on the site.
- 6. Exterior Lighting:
 - a. Site Lighting.
 - (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan will be provided under separation cover.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) Any architectural or specialty lighting shall be designed to any specific details or attributes only and shall meet the standards of Section 12 of the Technical Manual. Final architectural or specialty light will be submitted under separate cover.
 - (ii) Up-lighting for landscape features and public art shall be designed by a lighting professional and shall be scaled and placed to minimize the visibility and installed in accordance with the standards contained in Section 12 of the Technical Manual. A photometric plan will be provided under separation cover.
 - c. Street Lighting.
 - (i) Streetlighting will conform to specific lighting district requirements, as specified in Section 10 of the Technical Manual. As there are existing street lights on the opposite side of the street, no additional street lights are proposed at this time.



7. Noise and Vibration:

- a. The HVAC system will meet the applicable state and federal emissions requirements and will be enclosed within a roof “penthouse.” See Architectural Plans for additional information.

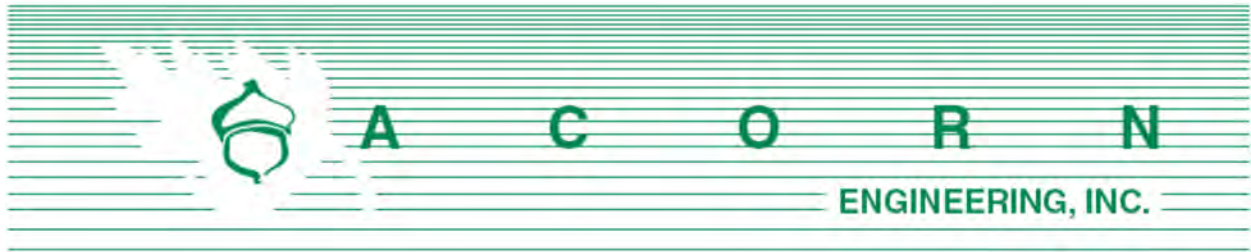
8. Signage and Wayfinding:

- a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is located in the West End Historic District.
 - (ii) See Section S Architectural Design Narrative
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

9. Zoning Related Design Standards:

- a. The project has been designed to meet the standards set forth in the B3 zone and West End Historic District. Please refer to the Site Plan for more information on the Space & Bulk Standards





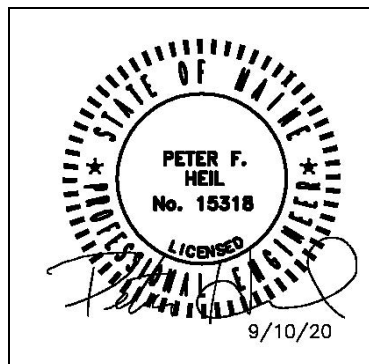
STORMWATER MANAGEMENT **REPORT**

Prepared For:

NewHeight Redfern, LLC
217 Commercial Street, Suite 205
Portland, ME 04101

Prepared By:

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104



September 2020



INTRODUCTION

Acorn Engineering, Inc. has been retained by NewHeight Redfern, LLC to provide civil engineering services for the proposed work located at 120 and 148 State Street, Portland, ME 04101. The site is currently comprised of the existing Mercy Hospital complex, including the Morrison House, with surface parking, landscaping, and a loading dock area. The project proposes to redevelop the existing lot into a mixed-use development, consisting of redevelopment of the existing hospital building and Morrison House and proposes two (2) new residential buildings with exterior parking. The two (2) new residential buildings will be submitted under a separate Site Plan application. The existing hospital building will be redeveloped to include 167 residential units, and the Morrison House to include 8 residential units, with associated common areas, office, and fitness area, as well as self-storage, commercial/retail space, and a medical clinic.

A stormwater analysis was prepared to demonstrate that the project will meet the following requirements of the City of Portland (the City):

- City of Portland Land Use Ordinance Chapter 14, Article V. Site Plan Section 14-523. Required Approvals and Applicability (F) Level III Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

The property consists of approximately 2.48 acres of land in Portland's West End neighborhood. The site is currently comprised of approximately 2.19 impervious area. The proposed project will increase the impervious area by approximately 0.10 acres, including redevelopment of non-roof impervious area greater than 5,000 sf.

EXISTING CONDITIONS

The proposed project site is located on 120 and 148 State Street, bounded by State Street, Spring Street and Winter Street. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc., dated August 4, 2020.

The existing property is covered by approximately 93% impervious surfaces including the existing Mercy Hospital, Morrison House, pavement, and concrete. The existing site has relatively flat slopes, with an approximate 13 foot retaining wall from the parking lot along Winter Street to the loading dock area off State Street.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting and existing impervious surfaces, a field inventory of significant natural features was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The project proposes to redevelop the existing hospital building and Morrison House with future residential buildings along Winter Street with a parking lot and courtyard area in the internal area of the site. Pedestrian access to the site shall be provided off all three adjacent streets. The development will be served by Portland Water District, Department of Public Works (sewer/storm), Unitil (natural gas), CMP (electric), Charter (cable), and Fairpoint (telephone).

The proposed project will increase the site's impervious area by approximately 0.10 acres, including redevelopment of non-roof impervious area greater than 5,000 sf, which triggers the City's water quality requirement. Water quality treatment will be provided by collecting the runoff through a new storm drain system which leads to a proprietary modular wetland system prior to discharging into the combined sewer within Spring Street. The project has been designed to meet Chapter 500 General Standards.

BASIC STANDARDS – EROSION & SEDIMENT CONTROL

The development shall provide erosion and sediment control, inspection and maintenance, and housekeeping standards as specified in the attached Exhibit K: Erosion and Sediment Control Report and that the grading and construction activity will not impede or otherwise alter drainageways so as to have an unreasonable adverse impact on an adjacent downslope parcel.

GENERAL STANDARDS - WATER QUALITY

The development shall provide water quality treatment in accordance with the DEP Chapter 500 General Standards for no less than 50% of the redeveloped impervious area. Water quality treatment will be provided through the use of proprietary modular wetland system, which is an approved system per Appendix B of the Maine Stormwater BMP Manual. Filtration BMPs have been shown to be very effective at removing a wide range of pollutants from stormwater runoff.

The treatment of the impervious & disturbed areas are as follows:

Table 1 – Impervious Area Treatment Table				
Existing Impervious Area (SF)	Total Proposed Impervious Area (SF)	Redeveloped Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	Overall New Imp. Area Treated
95,210	99,767	42,340	28,862	68.2%

As shown above, the project anticipates meeting and exceeding the required treatment for 50% of the redeveloped impervious surfaces as ample stormwater treatment is being provided.



SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

The area within and surrounding the project includes soils types listed in the table below.

Table 2 – Hydrologic Soil Group	
Soils Type	HSG
Hinkley Loamy Sand, 3-8% slopes	A

The HSG for the soils, listed above, show soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained sands, with a high rate of water transmission. Implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance to provide proper stabilization of the site.

Conclusion

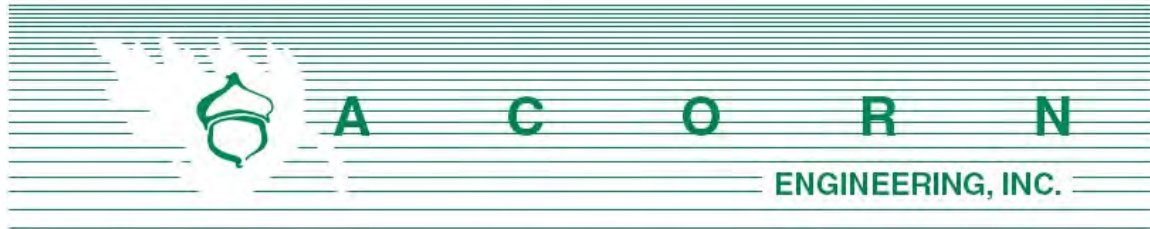
The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way.

Attachments

Attachment A: Soils Map



Att. K



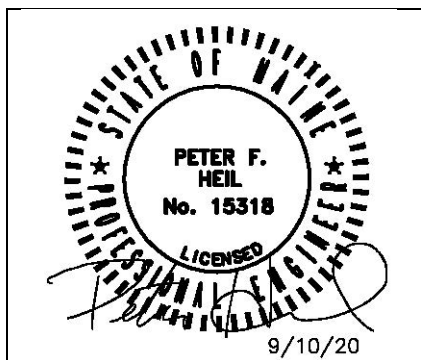
EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

NewHeight Redfern, LLC
217 Commercial Street, Suite 205
Portland, ME 04101

Prepared By:

Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104



September 2020

1.0 INTRODUCTION

Acorn Engineering, Inc. has been retained by NewHeight Redfern, LLC to provide civil engineering services for the proposed work located at 120 and 148 State Street, Portland, ME 04101. The site is currently comprised of the existing Mercy Hospital complex, including the Morrison House, with surface parking, landscaping, and a loading dock area. The project proposes to redevelop the existing lot into a mixed-use development, consisting of redevelopment of the existing hospital and Morrison House buildings and proposes two (2) new residential buildings with exterior parking. The two (2) new residential buildings will be submitted under a separate Site Plan application. The existing hospital building will be redeveloped to include 167 residential units and the Morrison House to include 8 residential units, with associated common areas, office, and fitness area, as well as self-storage, commercial/retail space, and a medical clinic.

The following Erosion and Sedimentation Control Report was developed in accordance with the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1) and the City of Portland Code of Ordinance, Chapter 14, Article V, Section 14-526, as well as the City of Portland Technical Manual. This narrative also meets the standards required in the 2016 Maine DEP's Erosion & Sediment Control BMP's Manual.

2.0 EXISTING CONDITIONS

The proposed project includes a boundary and topographic survey that has been prepared by Owen Haskell, Inc. dated August 4, 2020.

2.1 Existing Soils

Per the attached USDA NRCS Web Soil Survey, the site is mapped with Hinckley loamy sand, 3-8% slopes with a Hydrologic Soil Group A.

2.2 Existing Erosion Problems

The existing site surface is largely impervious and does not show signs of erosion within the property.

2.3 Critical Areas

There were no critical areas identified.

2.4 Protected Natural Resource

There are no known protected natural resources on site.



2.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities or timber harvesting within the project limits within the past 5 years.

2.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any significant timber harvesting within the past five years.

3.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the project, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

3.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

- 3.1.1 Construction activities will be performed in a manner to prevent impact to trees and shrubs within and adjacent to the property that are to remain.
- 3.1.2 Siltation fence, erosion control berm, and/or filter socks shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The sediment barrier shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. 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.
- 3.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.



- 3.1.4 Winter Street and Spring Street shall be swept to control mud and dust as necessary.
- 3.1.5 If a silt fence is used, silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
- 3.1.6 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used, including in any areas where there has been site disturbance, but unworked areas > 7 days. Application rates for seeding are provided at the end of this report.
- 3.1.7 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 3.1.8 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.

3.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

- 3.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4” of loam, limed, fertilized, seeded, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 3.1 of this report.
- 3.2.2 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

4.0 EROSION AND SEDIMENTATION CONTROL PLAN

The Erosion and Sedimentation Control Plan is included within the plan set.

5.0 DETAILS AND SPECIFICATIONS

Erosion Control Details and Specification are included in the plan set.



6.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and 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 shall be protected with overwinter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

6.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

6.2 Mulching

All areas shall be considered to be denuded until 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. Erosion control mix must be applied with a minimum 4-inch thickness. 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 or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

6.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.



6.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall 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 not been loamed, final grading 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 placed prior to the placement of mulch or erosion control blankets. 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.

6.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil 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.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.



6.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following actions shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor 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 contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.



7.0 INSPECTION AND MAINTENANCE

The Contractor has a responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards. Contractor to inspect after a rainfall event, and at least monthly and shall use the City's ESC inspection form.

8.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install perimeter silt fence or erosion control berm and construction entrance.
2. Install all other erosion control devices as necessary throughout the remainder of this schedule.
3. Pave any areas that were disturbed during construction.
4. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
5. Once the site is stabilized and 90% catch of vegetation has been obtained, remove all temporary erosion control measures.
6. Touch up areas without a vigorous catch of grass with loam and seed.
7. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed area to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within seven (7) days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.



9.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

10.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Housekeeping Plan



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.



HOUSEKEEPING PLAN

The following housekeeping plan has is developed in accordance with Maine DEP Chapter 500 Stormwater Management standards. For additional information, reference Appendix C of Chapter 500.

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at: <http://www.maine.gov/dep/spills/emergspillresp/>

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See Chapter 500 Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.



NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

NOTE: Dewatering controls are discussed in the “Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection.”

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and Section 3, above;
- (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;



- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in Section 5, above);
- (k) Potable water sources including waterline flushings; and
- (l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under Chapter 500 does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Section 6, above. Specifically, the Department's approval does not authorize discharges of the following:

- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.

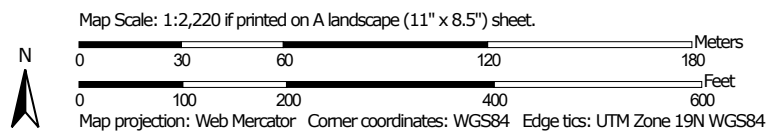
(8) Additional requirements. Additional requirements may be applied on a site-specific basis.



Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey
Page 928

8/26/2020
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
 Survey Area Data: Version 17, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HIB	Hinckley loamy sand, 3 to 8 percent slopes	A	8.5	100.0%
Totals for Area of Interest			8.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

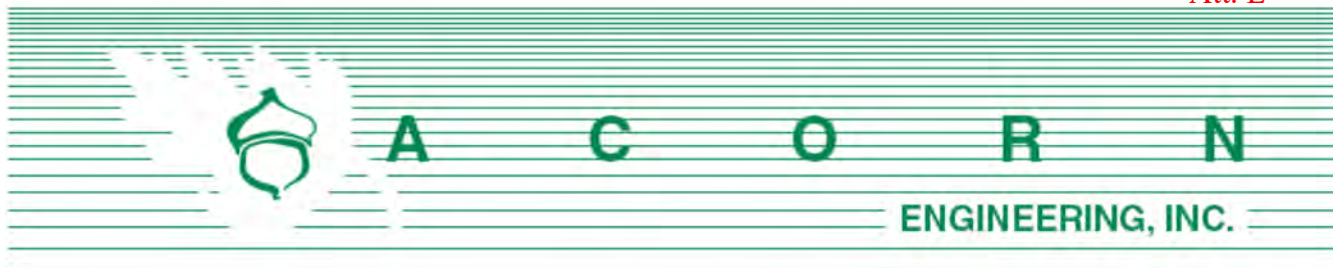
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Chief Robert Thompson
 City of Portland Fire Department
 380 Congress St.
 Portland, ME 04101

September 10, 2020

Subject: 120 and 148 State Street – Mercy Hospital Redevelopment
 Fire Department Checklist

On behalf of NewHeight Redfern, LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of Applicant:

NewHeight Redfern, LLC
 erin@newheightgroup.com
 (207) 720-0181

2. Name address, telephone number of Architect:

Ryan Senatore Architecture
 Ryan Senatore
 ryan@senatorearchitecture.com
 (207) 650-6414

3. Proposed uses of any structures [NFPA and IBC classification]

Please refer to attached code review

4. Square footage of all structures

The existing parking lot, landscaping & brick patio area are to be removed to facilitate the proposed structure with the following floor areas:

Mercy Building		
Basement	29,007	sf
Ground Floor	29,313	sf
1 st Floor	27,935	sf
2 nd Floor	23,885	sf
3 rd -5 th Floors	22,300	sf
6 th Floor	12,579	sf
Total	189,619	sf

Morrison House		
1 st Floor	2,407	sf
2 nd Floor	2,434	sf
3 rd Floor	1,482	sf
Total	6,323	sf

5. Elevation of all structures

Based upon the average grade plane defined by the IBC, the existing building height is 86 feet. For additional information, please refer to the building elevations provided by the Architect.

6. Proposed fire protection of all structures

The building shall have NFPA 13 fire protection system (wet) and standpipes in the stairwells to comply with NFPA 14 and Local Authority.

7. Hydrant locations

One existing hydrant is located in front of the building on State Street, two existing hydrants are located on Spring Street and one existing hydrant is located on Winter Street, approximately 44 feet from the southwest property corner. Once received, hydrant flow data from the Portland Water District may be made available to the Fire Department upon request.

8. Water main size and location

There are existing mains located on Winter Street, Spring Street, and State Street. The redeveloped Mercy Hospital building proposes to continue to utilize the existing services currently servicing the building. No new services to the existing building are proposed at this time. The two (2) new residential buildings (Buildings A-1 and A-2) along Winter Street are proposing to tap two different 6" fire water service lines and two different 2" domestic water service lines for a total of four different connections off of the existing main on Winter Street.

9. Access to all structures [min. 2 sides]

Access to the proposed structure is provided directly on the northeast along State Street, southeast along Spring Street and southwest within the proposed parking area.

10. The Architect has provided code summaries (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The portion of the parcel to be developed has frontage along both State Street, Spring Street and Winter Street, with the following public street widths available:

- State Street (Northeast): 99 feet
- Spring Street (Southeast): 50 feet
- Winter Street (Southwest): 40 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.



City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: Not applicable, the proposed parking area will have two-way access off Spring Street, with an emergency access lane accessed from Winter Street. The fire access lane shall have a minimum clear width of 16 ft without obstructions. The fire access lane has been designed to allow a ladder truck to circulate from Winter St into the interior parking drive aisle and vice versa. The curb along Winter St will be an angled mountable curb as used elsewhere throughout the City.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: As outlined in #9 above, the parcel's geometry allows for at least two sides of access along public streets (State Street and Spring Street), as well as access to the other two side of the building within the parking and loading dock areas. In addition, the building has an existing a sprinkler system.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development provides for safe and efficient access along the public street for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The existing buildings have exterior doors within 50' of a Fire Department access route, along both State Street and Spring Street. Access is also provided from the parking lot and loading dock areas.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: There are no proposed overhead obstructions between the street and proposed building, meeting the required 9-foot clearance height minimum.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: See Section O: Architectural Design Narrative



3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The applicant will work with the City's Public Works Division to assign street addresses and numbering to meet City Standards.

Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.



Code Review

8/28/2020

Mixed Use Apartment Building - Mercy Hospital Renovation, Portland, Maine

IBC 2015

NFPA 101 2018

7 floors above grade

502.1

Sprinklers

NFPA 13

NFPA 13

Fire Alarm

Monitored Fire Alarm Required (include alarm device on deck)

Monitored Fire Alarm Required

Smoke and CO Detectors

Smoke and CO detectors required

Smoke and CO detectors required

Occupant Load

T 1004.1.1

7.3.1.2

Basement = 25,879 Storage (500 gsf/oc) = 52

Basement = 25,879 Storage (500 gsf/oc) = 52

Basement Circulation = 3251 Storage (500 gsf/oc) = 7

Basement Circulation = 3251 Storage (500 gsf/oc) = 7

Ground Floor = 15,330 Storage (500 gsf/oc) = 31

Ground Floor = 15,330 Storage (500 gsf/oc) = 31

Ground Floor = 3,849 Clinic (100 gsf/oc) = 39

Ground Floor = 3,849 Clinic (100 gsf/oc) = 39

Ground Floor Circulation = 3396 Storage (200 gsf/oc) = 17

Ground Floor Circulation = 3396 Storage (200 gsf/oc) = 17

Ground Floor = 6,738 Residential (200 gsf/oc) = 34

Ground Floor = 6,738 Residential (200 gsf/oc) = 34

Floor 1 = 22,861 Residential (200 gsf/oc) = 115

Floor 1 = 22,861 Residential (200 gsf/oc) = 115

Floor 1 = 5,074 Commercial (50 gsf/oc) = 102

Floor 1 = 5,074 Commercial (50 gsf/oc) = 102

Floor 2 = 23,885 Residential (200 gsf/oc) = 120

Floor 2 = 23,885 Residential (200 gsf/oc) = 120

Floor 3 = 22,300 Residential (200 gsf/oc) = 112

Floor 3 = 22,300 Residential (200 gsf/oc) = 112

Floor 4 = 22,300 Residential (200 gsf/oc) = 112

Floor 4 = 22,300 Residential (200 gsf/oc) = 112

Floor 5 = 22,300 Residential (200 gsf/oc) = 112

Floor 5 = 22,300 Residential (200 gsf/oc) = 112

Floor 6 = 12,579 Residential (200 gsf/oc) = 63

Floor 6 = 12,579 Residential (200 gsf/oc) = 63

Floor 6 = 1,653 Residential (roof deck 15 gsf/oc) = 111

Floor 6 = 1,653 Residential (roof deck 15 gsf/oc) = 111

Total Building Occupant Load = 1,027**Total Building Occupant Load = 1,027**

Use Group(s)

310.1

Apartments (R2)

30.1

Apartment Building

Assembly

Assembly Under 300 Occupants

M - Retail

Mercantile C (under 3,000 sf)

			306.1	S1 - Storage (moderate hazard)	42.1	Storage - Ordinary Hazard
Constr. Type		T 503		1B - non-combustible protected		II (222) non-combustible protected
Building Height		T 504.3		Sprinkler NFPA13 = 180' max.		
	403.1			Building is NOT a High-Rise as the highest occupied floor is NOT		
				More than 75' above the lowest level of Fire Department Access		
Number of Stories		T 504.4		R2 = 12Stories with sprinkler above podium		
				A2 = 12 Stories with sprinkler		
				M = 12 Stories with sprinkler		
				S1 = 12 Stories with sprinkler		
Building Area		T 506.2		Sprinkler 13 = Unlimited sf max per floor all uses		
Building Elements 1B		T 601		2 hr Structural Frame	30.1.6	Apartments -No Minimum Construction requirements
		T 602		2 hr Bearing Walls Exterior (sep. dist $\geq$ 10')	42.1.6	Storage - No Min requirements
		T 602		2 hr Bearing Walls Exterior (sep. dist $<$ 10')	37.1.6	Storage - No Min requirements
		T 601		2 hr Bearing Walls Interior	12.1.6	Assembly permitted for any occ. load over 5 stories
		T 601		0 hr Non-Bearing Walls Interior		
		T 602		1 hr Non-Bearing Walls Exterior (sep. dist $\geq$ 10')		
		T 602		1 hr Non-Bearing Walls Exterior (sep. dist $<$ 10')		
		705.5		Exterior Wall with $>$ 10' sep. needs rating only from inside		
		T 601		2 hr Floor Construction		
		T 601		1 hr Roof Construction		
Separations						
				A2 and R2 sprinkled = 1hr	T6.1.14.4.1	Assembly and Apartments with Sprinkler = 1 hr
				S1 and R2 sprinkled = 1 hr		Mercantile and Apartments with Sprinkler = 1hr
				A2 and S1 sprinkled = 0 hr		Assembly and Mercantile with Sprinkler = 1 hr
				A2 and M sprinkled = 1 hr		Mercantile and Storage Ordinary with Sprinkler = 1hr
				M and S2 sprinkled = 1 hr		
		708		2 hr Mechanical Shaft $>$ 4 stories		

			1022.1	2 hr Stair Shaft > 4 stories		
			709.1	1 hr Between Dwelling Units (revised below)	30.3.7.2	1/2 hr vertical and horizontal sep. between dwellings
			1018.1	1/2 hr Corridor	30.2.4.4.7	1 hr corridor
			508.2.5	1 hr Boiler Room	T 31.3.2.1.1	0 hr Boiler Room w/sprinklers
			508.2.5	1 hr Trash Room	T 31.3.2.1.1	0 hr Trash Room w/sprinklers
			508.2.5	1 hr Storage Room	T 31.3.2.1.1	1 hr Storage Room w/sprinklers
			508.2.5	1 hr Laundry Room	T 31.3.2.1.1	0 hr Laundry Room w/sprinklers
			715.4	90 minute Stairwell Doors (2hr shaft)		
			715.4	20 minute Apartment Entry Doors (1/2 hr corridor wall)	30.3.6.2.1	20 minute Apartment Entry Doors
Distances and Exits						
			1006.2.1	M uses, sprinkled, under 49 occupants and less than 75' travel		
				Distance to exit, can have a single means of egress		
			1017.2	250' Travel Distance to exits with Sprinklers	30.2.6.2.3	200' Travel distance from apt. door to exit
			1006.2.1	125' Common Path of Travel for R use (75' for M and A)	30.2.5.3.2	50' Common Path of Travel
			1020.4	50' Dead End (20' in A use)	30.2.5.4	50' Dead End
					30.2.6.1.2	125' Travel Distance within Dwelling to Corridor
			403.6.2	Elevator as Means of Egress - required as building is over 4 stories		
				Generator required as Elevator is a MOE		
			3006.2	NOT required as building is not a High-rise and is sprinkled		
Unprotected Openings			T 705.8	15% when exterior wall sep. dist. is 3'>5'		
			T 705.8	25% when exterior wall sep. dist. is 5'>10'		
			T 705.8	45% when exterior wall sep. dist. is 10'>15'		
			T 705.8	75% when exterior wall sep. dist. is 15'>20'		
			T 705.8	Unlimited when exterior wall sep. dist. is 25'>30'		
			T 705.8	Unlimited when exterior wall sep. dist. is >30'		

Parapets		705.11 (ex 6)	Parapets are NOT required when the wall is allowed 25% or more		
			Unprotected openings		
Egress Windows		1030.1	NOT Required at the building has two means of egress		
Elevator Lobbies		3006.2	NOT required as building is not a High-rise and is sprinkled		
Elevator as a MOE			Required and needs back up generator as building is over 4 stories		
Egress Stairs		1009.1	Occ. Load >50 = 44" min width		
		1003.3	Handrails can protrude into stair 4.5" max	7.2.2.2.1.2	Handrails can protrude into stair 4.5" max
		1005.2	Door Swings may not reduce egress width by > 1/2		
		1009.2	80" min headroom	7.2.2.2.1.1(a)	6'-8" min. headroom
		1009.3	7" max. riser	7.2.2.2.1.1(a)	8" max. riser
		1009.3	11" min Tread depth	7.2.2.2.1.1(a)	9" min. tread
		1009.6	12' max. total rise between floors or landings	7.2.2.2.1.1(a)	12' max. height between landings
Ramps		1010.2	1:12 (8%) Max slope	7.2.5.2(a)	1:8 max. slope
		1010.6	60" long landings at top and bottom		
		1010.6	2% max slope of landings	7.2.5.2(a)	1:48 max. cross slope
		1010.8	>6" rise must have handrails on both sides of ramp		
Egress Corridors		1018.2	44" min. when Occ. > 50		
		1018.2	24" min. at service corridors to mechanical equipment		
Sound		1207.2	STC > 50 at walls and floors/ceilings		
		1207.3	IIC > 50 at walls and floors/ceilings		
Energy IECC 2009		T 402.1.1	0.35 Fenestration U-Factor		
Zone 6			R-49 Ceiling		
Residential			R-20 or 13+5c Framed wall		
			R-30 Floor		
			R-19 or 15c Basement wall		
			R-10 to 4ft Slab		

Accessibility			IBC 2015 Chapter 11 - 2% of units to be ANSI TYPE-A, rest are TYPE-B			
			Fair Housing Act Applies			
			Maine Human Rights Act Applies			
			ADAAG applies to Public Spaces			
Plumbing		Retail	Suites under 39 occupants have single unisex bathroom			
			TBD Based on final retail tenant layouts			

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Portland Dept. of Public Works -
Water Resources
212 Canco Road
Portland, Maine 04103



Bradley Roland, P.E.
Water Resources Division
Department of Public Works
212 Canco Road
Portland, ME 04103

Date: _____

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 120 and 148 State Street

Chart Block Lot Number: 45/C/7 and 45/C/6

Proposed Use: Mixed-Use - residential, commercial, commercial, medical clinic

Previous Use: Hospital

Existing Sanitary Flows: 18,169 GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

State Street (24" RCP combined), Spring Street (18" Brick combined),

and Winter Street (12" Brick combined)

Site Category | Commercial (see part 4 below) ☒
Industrial (complete part 5 below) ☐
Governmental ☐
Residential ☒
Other (specify) ☒

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: 207-874-8719

Owner/Developer Name: NewHeight Redfern, LLC

Owner/Developer Address: 217 Commercial Street, Suite 205, Portland, ME 04101

Phone: 207-720-0181

Fax: _____ E-mail: erin@newheightgroup.com

Engineering Consultant Name: Acorn Engineering

Engineering Consultant Address: 65 Hanover Street, Portland, ME 04010

Phone: 207-775-2655

Fax: _____ E-mail: pheil@acorn-engineering.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: Net +21,538 gpd (39,707 proposed - 18,169 exist) GPD

Peaking Factor/ Peak Times: Diurnal

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)

Handbook of Subsurface Wastewater Disposal in Maine

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: N/A
Size of External Grease Interceptor: _____
Retention Time: _____
Peaking Factor/ Peak Times: _____

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: N/A GPD
Do you currently hold Federal or State discharge permits? Yes _____ No _____
Is the process wastewater termed categorical under CFR 40? Yes _____ No _____
OSHA Standard Industrial Code (SIC): _____
(<http://www.osha.gov/oshstats/sicser.html>)
Peaking Factor/Peak Process Times: _____

Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.



CITY OF PORTLAND
Department of Public Works
Christopher C. Branch, P.E., Director

Date: August 3, 2021

Re: Wastewater Capacity Authorization

Address: 120 & 148 State Street
 Applicant: NewHeight Redfern, LLC

Planner: Caitlin Cameron

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Mercy Hospital	PWD Records			18,169
Proposed flow				
120 State Street - Mercy Hospital Redevelopment Building				
Multiple Family Dwelling Units	Studio	37	120	4440
Multiple Family Dwelling Units	1-Bedroom	124	120	14880
Multiple Family Dwelling Units	2-Bedroom	1	180	180
Employees at place of employment with no showers	Commercial Space	Estimate 4 Units	Unknown employee size	1000
Medical Clinic	Provided calculation based on size			3457
148 State Street – Morrison House Redevelopment Building				
Multiple Family Dwelling Units	1-Bedroom	7	120	840
Multiple Family Dwelling Units	2-Bedroom	1	180	180
Net Change				+ 6,808
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition and provided information				

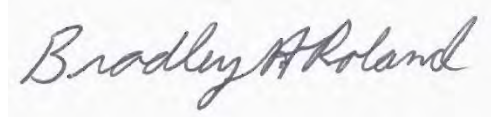
Comments:

The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is suggested.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

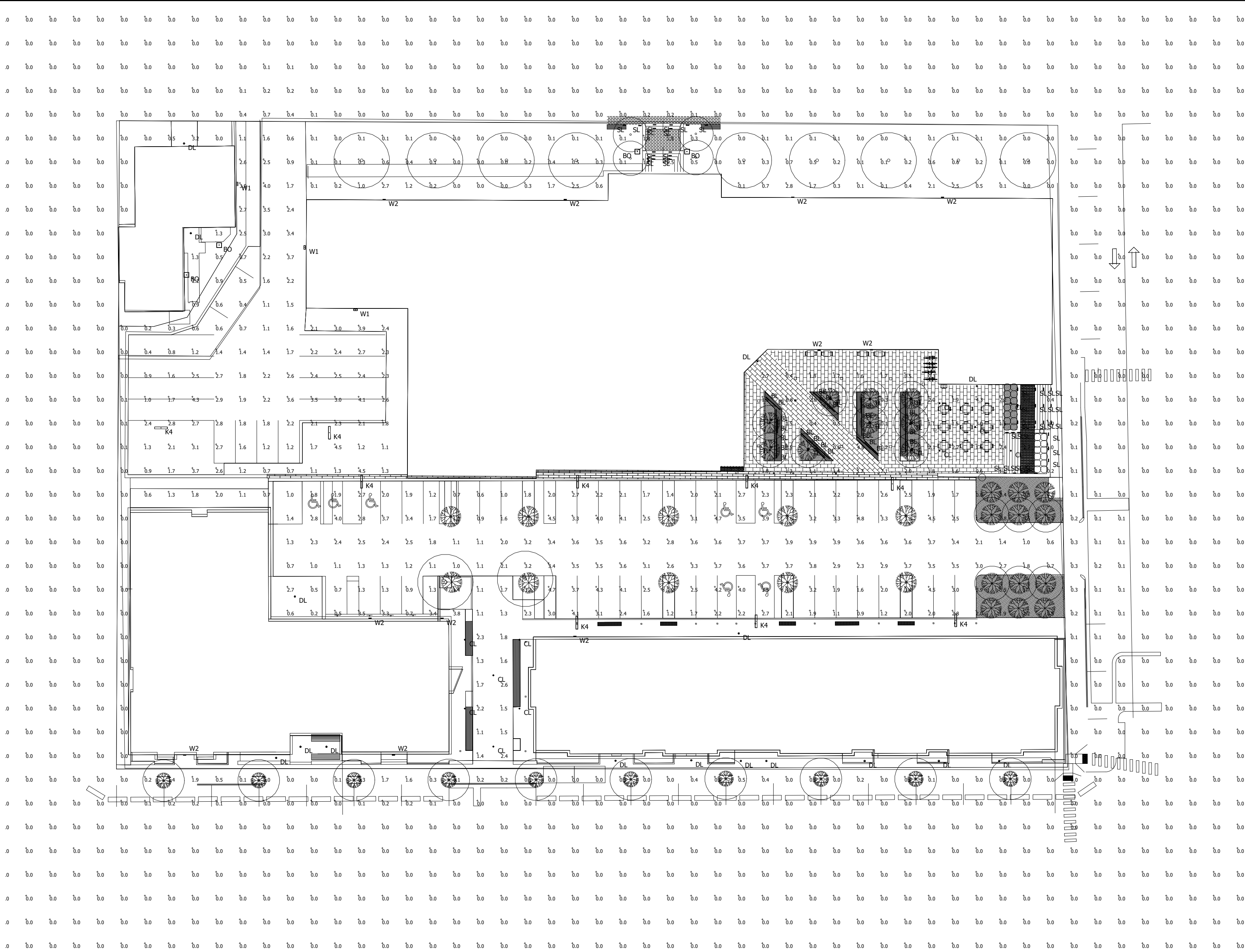
Sincerely,

A handwritten signature in cursive script that reads "Bradley A. Roland". The signature is written in dark ink on a light-colored background.

Bradley A. Roland, P.E.
Senior Project Engineer

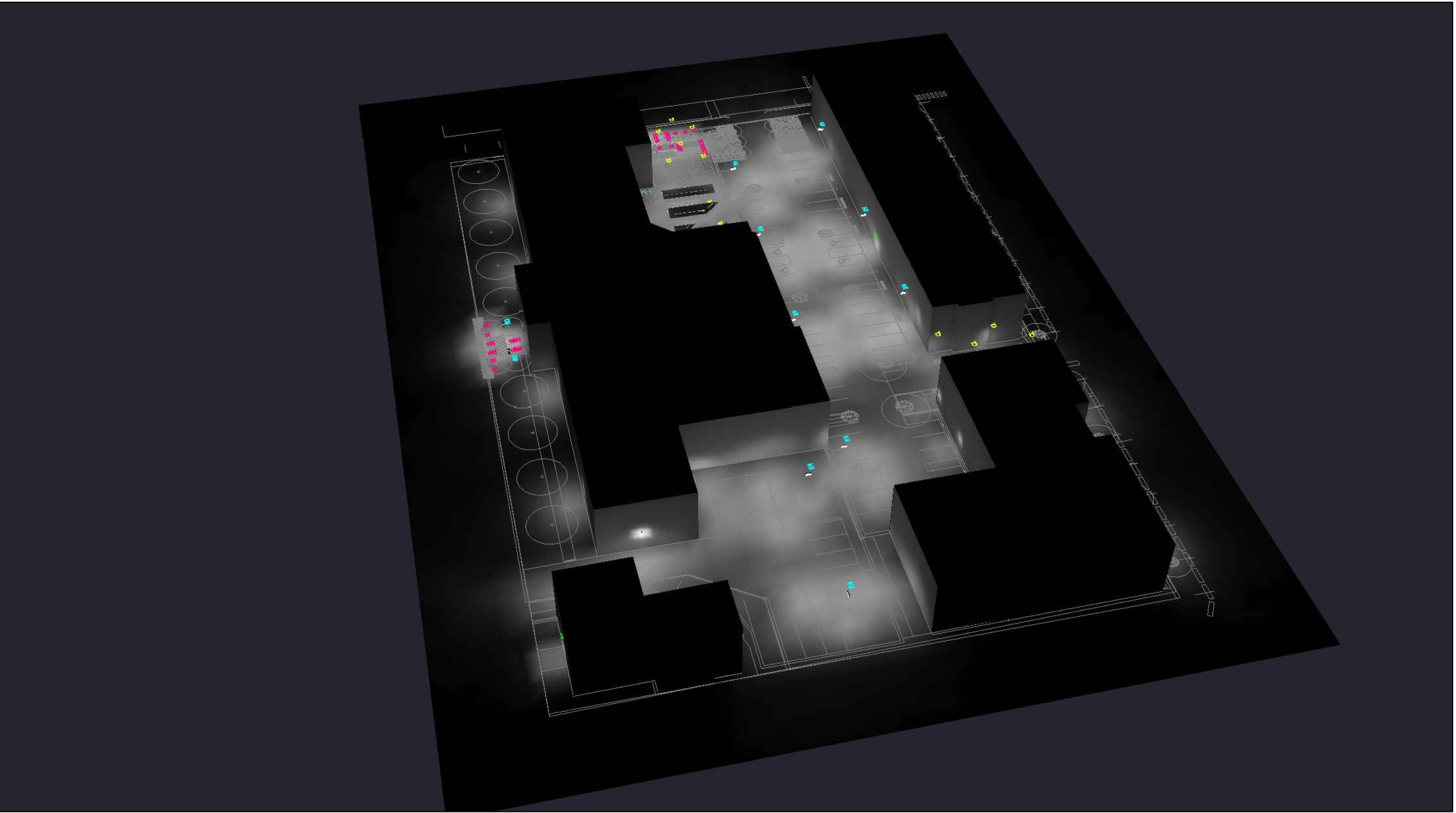
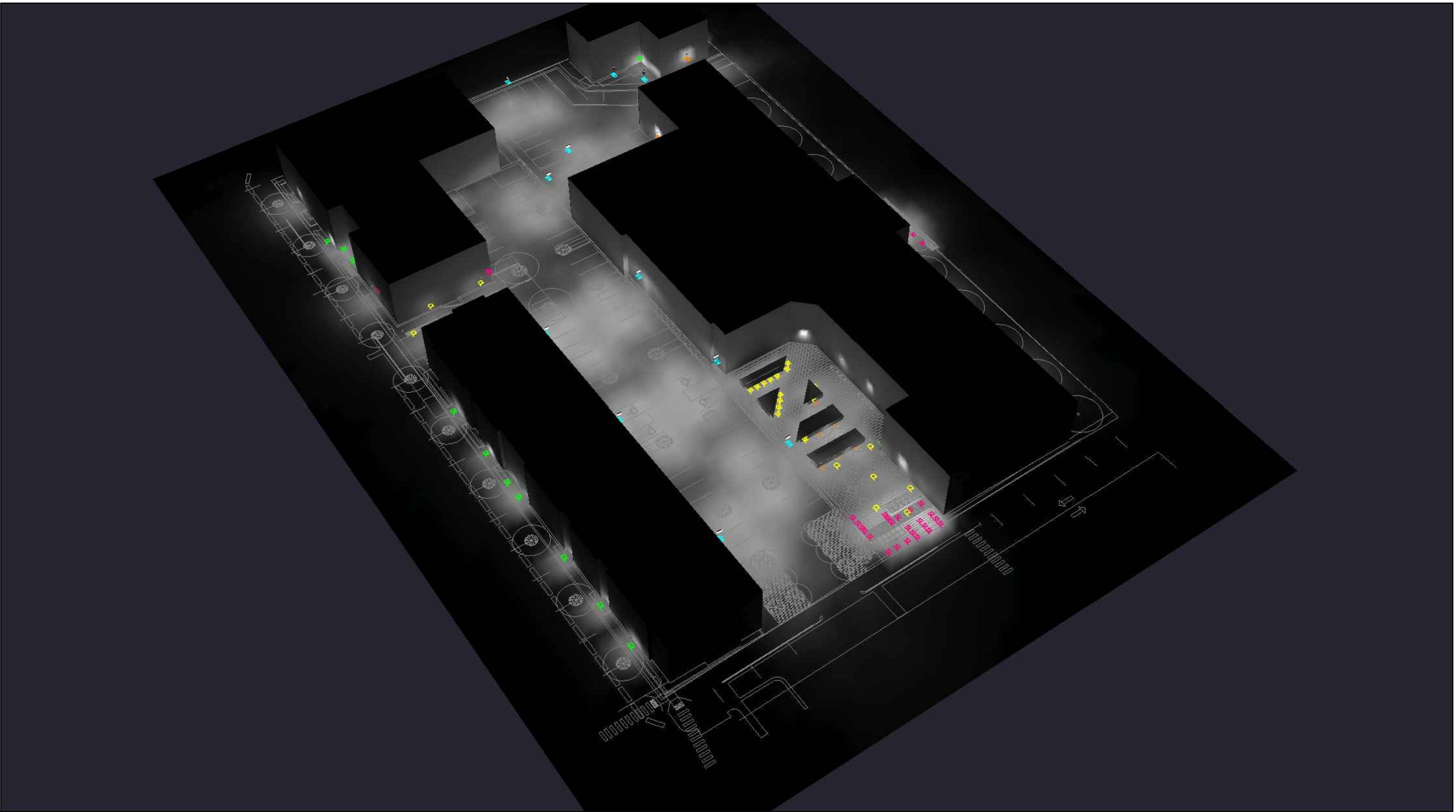
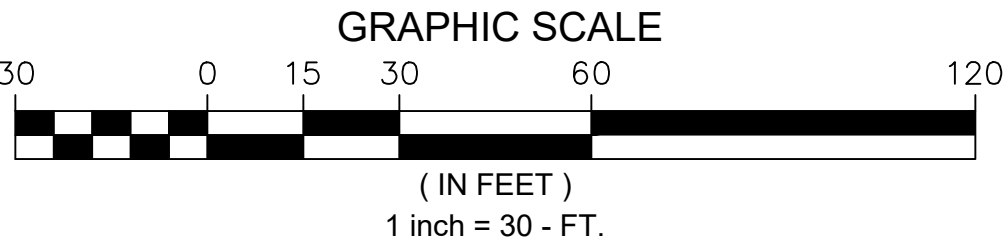
Lighting

Please find attached the photometric plan and cut sheets.



Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
	16	DL	9' - 0" AFG	0.900	664	8	LTR-4RD-H-SL06L-DM1_LTR-4RD-T-SL35K8WDS
	9	K4	20' - 0" AFG	0.900	8516	90	K5X-T4-MO-9030
	37	SL	N/A	0.900	195	10.4	EL807_9L4K_KIT
	9	TL	N/A	0.900	812	10.7	C24F3-9L4K
	3	W1	12' - 0" AFG	0.900	3340	30	WDS-D-24L-30-3K7-3
	11	W2	9' - 0" AFG	0.900	1067	18	PGF1
	27	BL	N/A	0.900	526	0	C-FR-F22B-CC-D24V-108-3500K (Dimmed 50%)
	4	BO	3' - 6" AFG	0.900	568	16	LINEA LN950-LED-VW (3000K)
	12	CL	14' - 0" AFG	0.900	731	10	AR-LED-x54-WFL-12

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.51	4.8	0.0	N.A.	N.A.
Back Parking Area	Illuminance	Fc	2.07	4.3	0.4	5.18	10.75
Courtyard	Illuminance	Fc	1.36	4.8	0.0	N.A.	N.A.
Front Parking Area	Illuminance	Fc	2.58	4.8	0.5	5.16	9.60
Back of Building	Illuminance	Fc	0.42	2.8	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT. 2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS. 3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.				REVISED FROM DRAWING NUMBER(S) R1: 07/21/21 R5: 05/27/21 R2: 09/28/20 R6: 06/22/21 R3: 11/24/20 R7: 07/08/21 R4: 11/30/20 R8: 07/21/21		 Hubbell Lighting, Inc. 701 MILLENNIUM BLVD. GREENVILLE, SC 29607	ON BY: DHK REV BY: DHK QUOTE: N/A	DATE: 09/18/20 08/16/21	CHK BY: N/A SCALE: AS NOTED
TITLE: MERCY PORTLAND, ME SITE PHOTOMETRIC PLAN				DRAWING / DESIGN NO.: 2026981R14					



Date: Aug 16, 2021

Swaney Lighting
PO Box 1597
Scarborough ME 04070
Phone: (207) 883-7100
Fax: (207) 885-9606

Job Name
MERCY HOSPITAL SITE LIGHTING
SLA20-47120
PORTLAND ME

Bid Date
Jul 23, 2021

Submittal Date
Aug 16, 2021



Transmittal

Swaney Lighting

PO Box 1597

Scarborough ME 04070

Phone: (207) 883-7100

From: Therese "TC" Freeman X-103

Project **MERCY HOSPITAL SITE LIGHTING**

Quote# SLA20-47120

Location PORTLAND ME

Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| ☐ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☒ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☐ Review and Comment | |

Type	MFG	Part
BO	HESS AMERICA	LN950-LED-WW-UNV-A-03SRA-**-##
	Item Note: SPECIFY FINISH & ANY OPTIONS REQUIRED.	
BL	TMB	FACTORY ASSEMBLED FLOPPYFLEX FIXTURE SYSTEM
CL	BK LIGHTING	CY-AR-LED-TR-E65-WFL-A9-***-12-C- MT-WC
DL	PRESCOLITE	LTR-4RD-H-SL06L-DM1 / LTR-4RD-T- SL30K8WD-S
K4	Architectural Area Lighting	K51-T4-MO-9030-WIRED120-277V- PS520-188-**
	Item Note: SPECIFY FINISH	
TL	KIM	C24F3/9L3KUV
SL	KIM	EL807/9L3KUV/**
	Item Note: SPECIFY FINISH	
W1	KIM	WDS/D/24L-30/3K7/3/UNV/**
	Item Note: SPECIFY FINISH	
W2	Dual Lite	PGF1*
	Item Note: SPECIFY FINISH	
VR	HESS AMERICA	VR410-2LVC-2-WW-T5-UNV-X-**-DIM
	Item Note: SPECIFY FINISH	
LCP	HCS	CX162S162NM

**Job Name:**

MERCY HOSPITAL SITE LIGHTING

Catalog Number:

LN950-LED-WW-UNV-A-03SRA-**-##

Notes: SPECIFY FINISH & ANY OPTIONS REQUIRED.

Type:**BO**

SLA20-47120

.hess

LINEA LED Specification

The simple linear form of LINEA combined with LED illumination provides a synergy of form and function. High-power LEDs provide a wide asymmetric distribution while generating no light above ninety degrees horizontal. Bollard housing and shaft are single-piece and finished in finely textured paint. All hardware is stainless steel.



Model	Lamp	Color Temperature	Volt	Mounting	Pole	Specify Std. finish	To be verified
						Finish	Option
LN950	LED - Standard output	WW - 3000K	UNV - 120-277V	A - Single Mount 03SRA - 3' Straight Rectangular		SG - Silver Grey	DIM - 0-10vDC Dimming
	HP/LED - High output NW - 4000K			B - Twin Mount		DG - Dark Grey	EF - External Flange
						GG - Graphite Grey	N - None
						BLK - Matte Black	
						BRZ - Dark Bronze	
						CC - Custom RAL Color	

Ordering Information

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Bollard > LINEA

https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA___/

Page 1

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: LN950-LED-WW-UNV-A-03SRA-**- ## Notes: SPECIFY FINISH & ANY OPTIONS REQUIRED.	Type: BO SLA20-47120
------------------------------	--	--	--

.hess

LINEA LED Specification

HOUSING

Single piece bollard consists of one or two integral luminaire heads and shaft fabricated from rectangular 6061 aluminum alloy with radiussed corners. Nominal wall thickness is 0.187" with cross-section of 7.5" x 3.5". LED light engine and driver are housed in self contained weather-proof powerpack enclosure within the bollard and removable with a single fastener. Lens is clear impact-resistant acrylic. LED array is thermally managed using convection and transmission of heat through the use of an aluminum heat sink and the luminaire housing. All hardware is stainless steel.

OPTICS

Each LED light engine consists of five high output multi-chip LED arrays fitted with prismatic lens optics to produce a uniform asymmetric light distribution pattern suitable for pathways and sidewalks. Luminaire emits zero uplight at or above 90 degrees horizontal and qualifies for use in LEED zones LZ1, LZ2, LZ3, and LZ4. Color temperature may be 3000K or 4000K.

ELECTRICAL

Standard output: Integral LED driver is housed in luminaire head. Each luminaire head consumes 16 watts at 350 mA. Twin mount bollard with two heads consumes 32 watts. Input voltage range is 120v - 277v AC, 50-60 Hz. LED driver shall be UL recognized.

High output: Integral LED driver is housed in luminaire head. Each luminaire head consumes 33 watts at 700 mA. Twin mount bollard with two heads consumes 66 watts. Input voltage range is 120v - 277v AC, 50-60 Hz. LED driver shall be UL recognized.

LED DELIVERED LUMENS / BUG RATING Per Luminaire Head

Standard Output:

3000K - 568 delivered lumens / Bo-Uo-G1

4000K - 659 delivered lumens / Bo-Uo-G1

High Output:

3000K - 1061 delivered lumens / Bo-Uo-G2

4000K - 1216 delivered lumens / Bo-Uo-G2

NOTE : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of HessAmerica. Consult factory for more current technical data.

MOUNTING

Flangeless mounting is standard. Optional external flange mounting available on request.

WEIGHT: 20lbs

FINISH

Standard finishes are finely textured matte silver grey metallic, dark grey, graphite grey, matte black, or dark bronze. Special colors available on request.

CERTIFICATION

CSA/US Certified for Wet Locations

WARRANTY

Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Bollard > LINEA
https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA_/

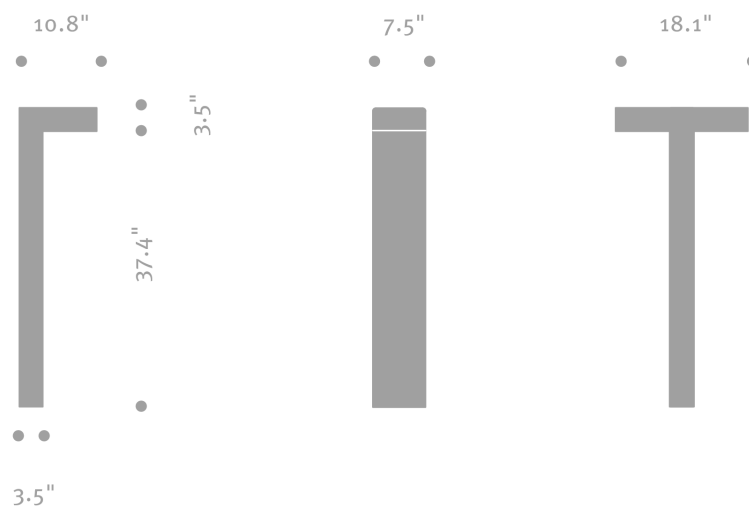
Page 2



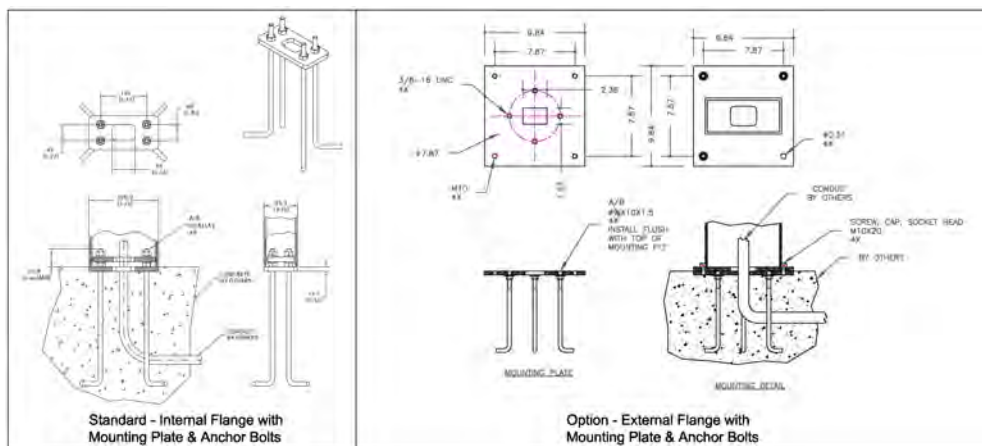
.hess

Additional information

Dimensions



Mounting detail



Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Bollard > LINEA
https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA_/

Page 3

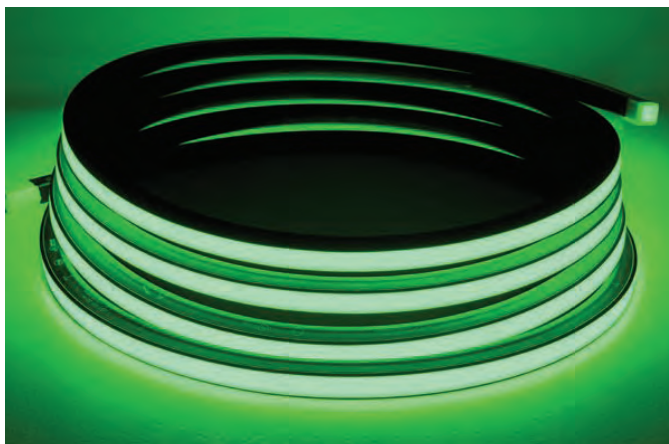
Submitted by Swaney Lighting		Catalog Number:	Type:
	Job Name: MERCY HOSPITAL SITE LIGHTING	LN950-LED-WW-UNV-A-03SRA-**- ## Notes: SPECIFY FINISH & ANY OPTIONS REQUIRED.	BO SLA20-47120

This page intentionally left blank for printing purposes



FloppyFlex®

SINGLE COLOR | FLAT 160° | FTB and STS LED NEON



Description

FloppyFlex Flat single color is flexible 24V LED neon available in several colors or color temperatures of white. The minimum side-to-side or front-to-back bend diameter is 300 mm. Features a homogenous LED surface without "skittles" effect.

Features

- Super bright with homogenous lighting surface
- Smooth, beautiful dimming, DMX control via FloppyDrive
- Wide beam angle
- Wide range of accessories for joining, terminating, mounting, powering
- Easy to use and install
- 300 mm minimum side-to-side or front-to-back bend diameter
- Unlimited and unprecedented possibilities

Applications

Installation, architectural, digital signage, gameshows, arcades, signs, film and television sets, theme parks, bars and clubs, cruise ships, creating words, indirect applications, and scenic elements

Available Connectors

Injection Molded Power Feed and End cap connectors, fully customizable for no-hassle installations. PVC IP67, Silicone IP68.

Double Molded IP68 Power Feed and End cap connectors, suitable for submersible applications. PVC only - not available for silicone versions.

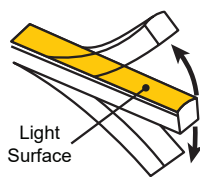
EZ-Connect power feeds and end caps allow for easy onsite terminations with IP67 ratings, and allow for the End, Side, Middle, or Bottom power feed entry.

Flame Resistant — UV Resistant — Solvents Resistant
Saltwater Resistant — IP67 Protection — IK08 Protection

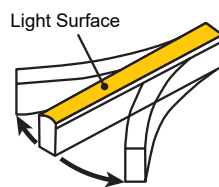
Certifications

With factory-installed connectors.

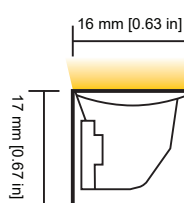
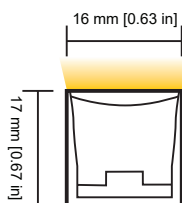
cULus Listed, CE, TUV and RoHS compliant and passes rigorous environmental, optical, mechanical, and electrical testing.



Front-to-Back Versions



Side-to-Side Versions



Exclusive Distribution — The Americas, Europe, and Asia
Innovative, Performance-Driven Show Technology Since 1983


Job Name:
 MERCY HOSPITAL SITE LIGHTING

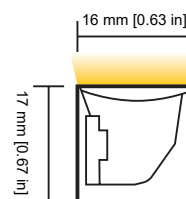
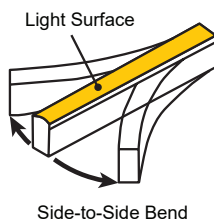
Catalog Number:
 FACTORY ASSEMBLED
 FLOPPYFLEX FIXTURE SYSTEM
 Notes:
Type:**BL**

SLA20-47120

FloppyFlex®

**SINGLE COLOR | FLAT 160° | STS
 LED NEON**
Flat Side-to-Side White PVC Specification

Part Number		FFFH21K	FFFH27K	FFFH3K	FFFH35K	FFFH4K	FFFH57K
Type		Dimmable Fixed White					
LED Color		2100K	2700K	3000K	3500K	4000K	5700K
CCT		2238±102K	2725±145K	3045±175K	3465±245K	3985±275K	5669±355K
Lumen/m		400	400	400	450	450	400
Lumen/ft		122	122	122	137	137	122
CRI		82-87					
Beam Angle, Average (50%)		116°					
Cut & Connect Unit Length		55.6 mm [2.19 in]					
Number of Units Per Meter		18					
LED Quantity Per Unit		6					
LED Quantity Per Meter		108					
Base Color		White					
Housing		PVC					
Minimum Bend Diameter		300mm/11.81 in.					
Bending Direction		Side-to-Side (STS)					
Connectors & Hardware		Factory molded connectors, Field attachable connectors, Aluminum mounting channels					
Operating Voltage		24 VDC					
Wiring		2-Wire					
Power Consumption		12 W/m					
Max Fixture Runs	Single end feed	10 m [32.8 ft]					
	Double end feed	20 m [65.6 ft]					
Control		DMX-512 via FloppyDrive 2X2, Dimmable MLV LED Driver, Non-dimmable AC/DC LED Driver					
Installation Temperature		0 to 45 °C [32 to 113°F]					
Operating Temperature		-20 to 45 °C [-4 to 113 °F]					
Mounting Surface Temperature		60 °C [140 °F] Max.					
Storage Temperature		-20 to 60 °C [-4 to 140 °F]					
Dimensions (WxHxD)		16 mm x 17 mm x variable [0.63 in x 0.67 in x variable]					
Ingress Protection		IP67 with Molded connectors, IP68 with Double Molded connectors, IP67 with EZ-Connect connectors					
Listing		UL2108 Class 2, UL2108 Non Class 2, UL676, CE-EMC, IS 10322					
Warranty		3 Years					


Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

 Los Angeles
 +1 818.899.8818

 London
 +44 (0)20.8574.9700

tmb
 www.tmb.com

 New York
 +1 201.896.8600

 Beijing
 +86 10.8492.1587

 Toronto
 +1 519.538.0888

**Job Name:**

MERCY HOSPITAL SITE LIGHTING

Catalog Number:FACTORY ASSEMBLED
FLOPPYFLEX FIXTURE SYSTEM

Notes:

Type:**BL**

SLA20-47120

FloppyFlex®

MOLDED FLAT CONNECTORS IP67 PVC OR IP68 SILICONE

**Molded Bottom Entry Connection**

Connects FloppyFlex Flat to power supply with pre-installed end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.

**Molded Side Entry Connection**

Connects FloppyFlex Flat to power supply with pre-installed side feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.

**Molded End Entry Connection**

Connects FloppyFlex Flat to power supply with pre-installed end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.

**Molded End Cap**

Pre-installed termination protection of FloppyFlex Flat, IP67.

**Molded End Entry Connection**

Connects two pieces of FloppyFlex Flat together with a flexible cable, IP67

Cable length available in 0.3 - 1 m.

Maximum 8 jumpers per 20 m

Maximum 4 jumpers per 10 m

**Molded T-Feed Connection**

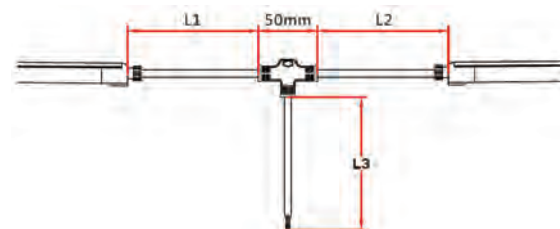
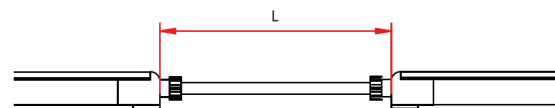
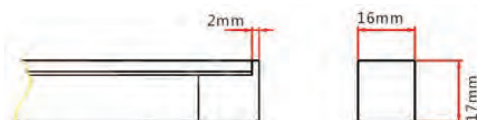
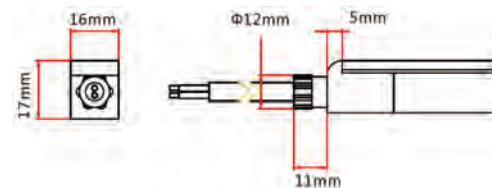
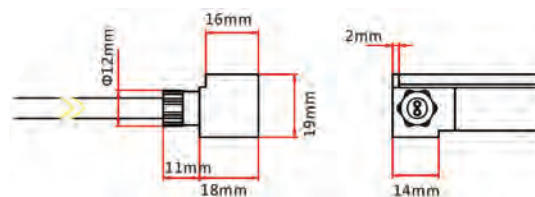
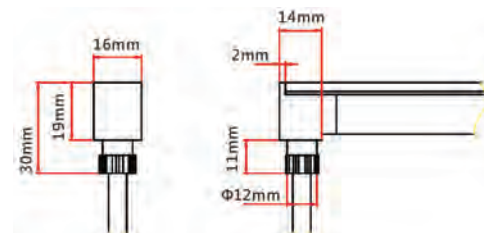
Connects two pieces of FloppyFlex Flat together with powered T-joint, IP67.

L1 and L2 length available in 0.15-0.5 m.

L3 length available in 0.3 - 1 m

Maximum 8 T-Feeds per 20 m

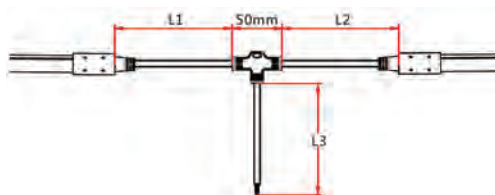
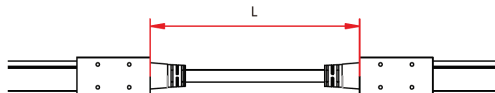
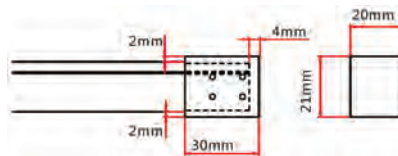
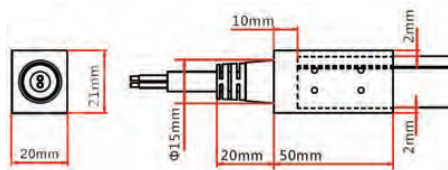
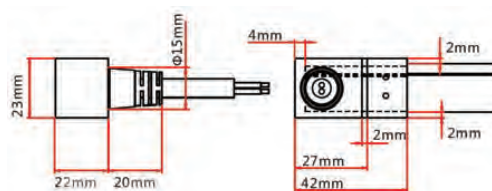
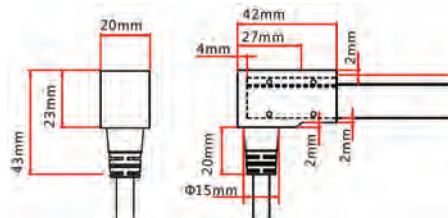
Maximum 4 T-Feeds per 10 m



Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

Los Angeles
+1 818.899.8818London
+44 (0)20.8574.9700
tmb
www.tmb.com
New York
+1 201.896.8600Beijing
+86 10.8492.1587Toronto
+1 519.538.0888





FloppyFlex®

EZ-CONNECT FLAT CONNECTORS IP67 PVC OR SILICONE



EZ-Connect Bottom Entry

Connects FloppyFlex Flat to power supply with user-installable end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



EZ-Connect Side Entry

Connects FloppyFlex Flat to power supply with user-installable side feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



EZ-Connect End Entry

Connects FloppyFlex Flat to power supply with user-installable end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



EZ-Connect End Cap

User-installable termination protection of FloppyFlex Flat, IP67.



EZ-Connect End Entry

Connects two pieces of FloppyFlex Flat together with a flexible cable, user-installable, IP67.

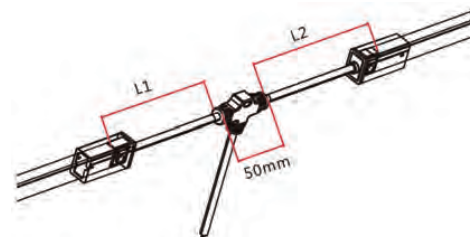
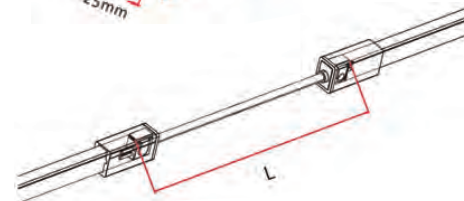
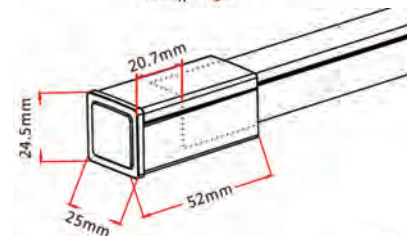
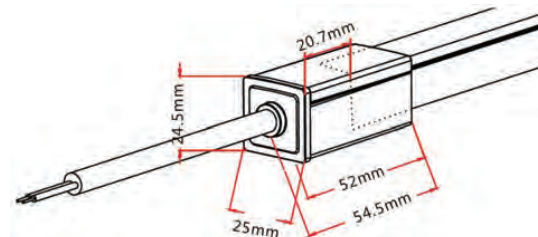
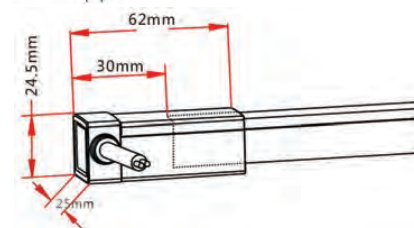
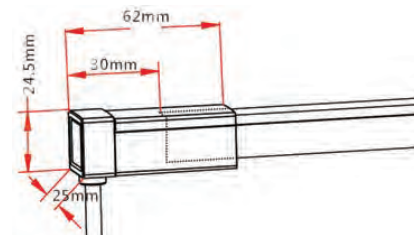
Cable length available in 0.3 m, 1 m, and 3 m.



EZ-Connect T-Feed

Connects two pieces of FloppyFlex Flat together with powered T-joint, user-installable, IP67.

L1 and L2 length available in 0.3 m.
L3 length available in 1 m



Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

Los Angeles
+1 818.899.8818

London
+44 (0)20.8574.9700

tmb
www.tmb.com

New York
+1 201.896.8600

Beijing
+86 10.8492.1587

Toronto
+1 519.538.0888



FloppyFlex®

MINI TOOL KIT ASSEMBLY TOOLS



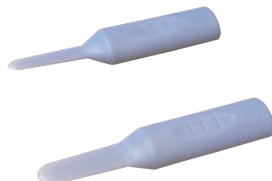
The FloppyFlex Mini Tool Kit includes the tools needed to properly cut and terminate FloppyFlex LED Neon with EZ-Connect field-installable connectors. Correct installation ensures proper electrical contact, IP rating integrity, and warranty compliance.

Includes cutter, insertion spreaders, and grippers.

We recommend using these tools for optimum installation results and reduced risk of damage to the product.



Cutter



Insertion Spreaders



Grippers

Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

 Los Angeles
 +1 818.899.8818

 London
 +44 (0)20.8574.9700

tmb
www.tmb.com

 New York
 +1 201.896.8600

 Beijing
 +86 10.8492.1587

 Toronto
 +1 519.538.0888



FloppyFlex®

DRIVERS



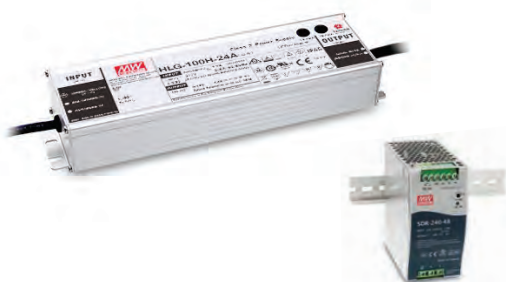
FloppyDrive DIN Rail Mount

- DMX dimming for 12 or 24V LED Tapes, Neons, and other low voltage systems of all types. Perfect for FloppyFlex and FloppyTape.
- Two 12V or 24V 2-, 3-, 4-, or 5-wire outputs
- Addressing, monitoring and reporting of all functions, via RDM
- 1200Hz flicker-free refresh rate
- Pluggable Terminal Block (PTB) screw terminals for bare-wire, installation flexibility
- More information and full specification sheets at <https://tmb.com/proplex-floppydrives>



FloppyDrive 4x2 24V PortableMount

- DMX Control for FloppyFlex LED neon, FloppyTape LED tape, and other 24 VDC LED neon or tape systems. (Max. length of runs per output varies with neon or tape product.)
- Two 24 VDC outputs. 12 VDC version also available
- Rugged, tour-ready ProPlex "Blue Box" PortableMount chassis. Packaged for extreme conditions. Shock-mounted circuitry. Advanced thermal management
- Color LCD Display with easy-function control buttons for easy setup and configuration
- Heavy-duty yoke for truss mounting. Optional RackMount Kit available.
- RDM functionality for complete system monitoring and addressing via RDM
- 2-, 3-, and 5-wire (1-, 2-, and 4-channel) versions also available
- More information and full specification sheets at <https://tmb.com/proplex-floppydrives>



Mean Well 24 VDC LED Drivers

- High efficiency 24VDC LED drivers in DIN Rail and stand-alone with multiple wattage configurations
- IP-rated units available.
- Fixed or dimmable output. Dimming available via 1-10VDC, 10V PWM signal, resistance, or built-in potentiometer.

Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

Los Angeles
+1 818.899.8818

London
+44 (0)20.8574.9700

tmb
www.tmb.com

New York
+1 201.896.8600

Beijing
+86 10.8492.1587

Toronto
+1 519.538.0888

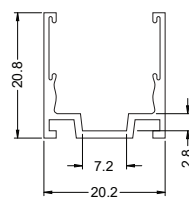


FloppyFlex®

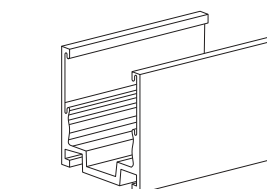
SELF-LOCKING ALUMINUM PROFILE V3 FFACKF*MV3



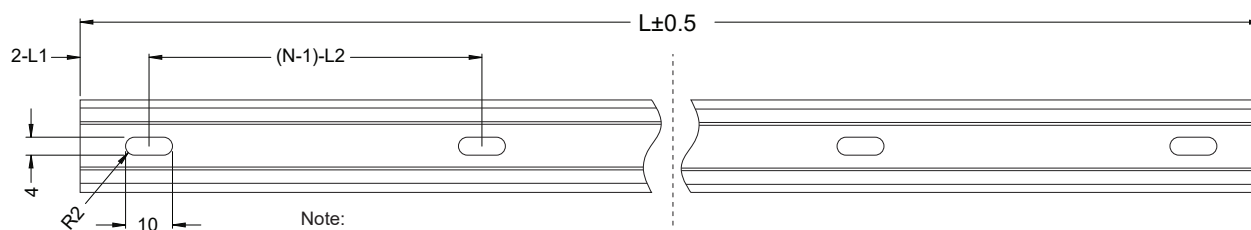
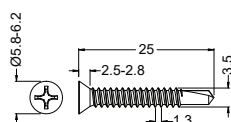
Versatile self-locking profile can be used to mount FloppyFlex Flat LED neon in any orientation including overhead at any angle. Extruded 6063 aluminum construction with elastic serrated grip tape hold the FloppyFlex neon firmly through varying temperatures of -20 to +70 °C.



Tolerance: ±0.2 mm



Dimensions in millimeters



Note:

1. 2-L1 refers to two of symmetric L1 in each piece of profile
 2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile
- "N" hereby stands for its corresponding "Hole Number" in the table below.

Part Number	Length	L1	L2	Slotted Hole	Number of Holes
FFACKF20MMV3	20 mm [0.787 in]	10 mm [0.39 in]	N/A	4x10 mm [0.16x0.39 in]	1
FFACKF.5MV3	500 mm [19.68 in]	50 mm [1.97 in]	200 mm [7.87 in]	4x10 mm [0.16x0.39 in]	3
FFACKF1MV3	1000 mm [39.37 in]	100 mm [3.93 in]	200 mm [7.87 in]	4x10 mm [0.16x0.39 in]	5
FFACKF2MV3	2000 mm [78.74 in]	100 mm [3.93 in]	200 mm [7.87 in]	4x10 mm [0.16x0.39 in]	10

Exclusive Distribution – The Americas, Europe, and Asia

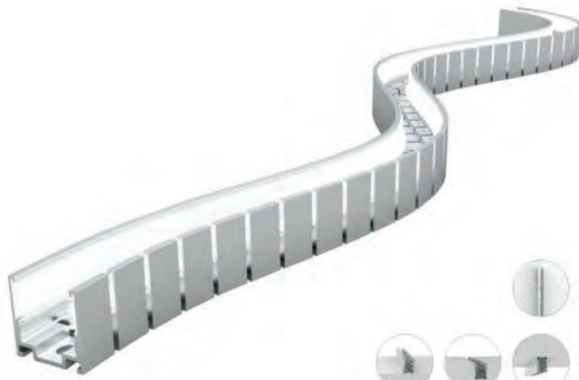
sales@tmb.com

Los Angeles
+1 818.899.8818London
+44 (0)20.8574.9700
tmb
 www.tmb.com
New York
+1 201.896.8600Beijing
+86 10.8492.1587Toronto
+1 519.538.0888

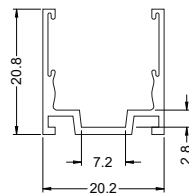
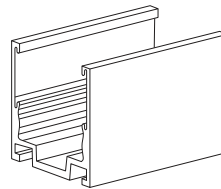


FloppyFlex®

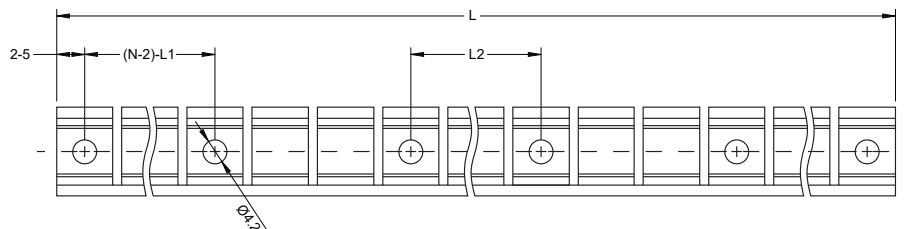
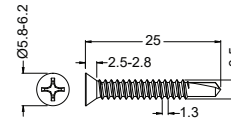
FLEXIBLE SELF-LOCKING ALUMINUM PROFILE FFACFLKF*M



Flexible self-locking profile can be used to mount FloppyFlex Flat STS LED neon in custom freeform curves while maintaining clamping force. May be mounted in any orientation including overhead at any angle.

Tolerance: ± 0.2 mm

Dimensions in millimeters

**Note:**

1. 2-5 refers to two of symmetric 5 mm in each piece of profile
 2. (N-2)-L1 refers to (N minus two) of symmetric L1 in each piece of profile
- "N" hereby stands for its corresponding "Hole Number" in the table below.

Part Number	Length	L1	L2	Screw Hole	Number of Holes
FFACFLKF.5M	500 mm [19.68 in]	116.5 mm [4.59 in]	23.3 mm [0.92 in]	Ø4.2 mm [0.17 in]	6
FFACFLKF1M	1000 mm [39.37 in]	116.5 mm [4.59 in]	58.2 mm [2.29 in]	Ø4.2 mm [0.17 in]	10

Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

 Los Angeles
 +1 818.899.8818

 London
 +44 (0)20.8574.9700

www.tmb.com

 New York
 +1 201.896.8600

 Beijing
 +86 10.8492.1587

 Toronto
 +1 519.538.0888

Submitted by Swaney Lighting		Catalog Number: FACTORY ASSEMBLED FLOPPYFLEX FIXTURE SYSTEM Notes:	Type: BL SLA20-47120
	Job Name: MERCY HOSPITAL SITE LIGHTING		

This page intentionally left blank for printing purposes

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: CY-AR-LED-TR-E65-WFL-A9-***-12-C-MT-WC Notes:	Type: CL SLA20-47120
------------------------------	--	--	--

ARTISTAR - CATENARY (INTEGRAL TRANSFORMER)	IP66 RATED
---	-------------------

DATE:	PROJECT:	TYPE:
-------	----------	-------

CATALOG NUMBER LOGIC:



**Please see Adjust-e-Lume photometry to determine desired intensity.*
***Accommodates up to 2 lens/shielding media.*

CATALOG NUMBER LOGIC

Example: CY - AR - LED - TR - e65 - MFL - A9 - BZW - 12 - 11 - C - MT - WC

MATERIAL

(Blank) - Aluminum B - Brass S - Stainless Steel

SERIES

CY - Catenary

FIXTURE

AR - ArtiStar

SOURCE

LED - with Integral Dimming Driver

HOUSING

TR - Integral Transformer

LED TYPE

e64 - 7W LED/2700K e66 - 7W LED/4000K

e65 - 7W LED/3000K e74 - 7W LED/Amber

OPTICS

NSP - Narrow Spot (13°) MFL - Medium Flood (23°)

SP - Spot (16°) WFL - Wide Flood (31°)

ADJUST-E-LUME OUTPUT INTENSITY*

A9 (Standard), A8, A7, A6, A5, A4, A3, A2, A1

FINISH (See page 2 for full-color swatches)

Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER) Specify Stnd. finish

Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRI, CRM, HUG, MDS, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR)

Also available in RAL Finishes

Brass Finishes (MAC, POL, MIT)

Stainless Steel Finishes (MAC, POL)

LENS TYPE

9 - Clear (Standard) 12 - Soft Focus** 13 - Rectilinear**

SHIELDING

11 - Honeycomb Baffle**

CAP STYLE

C - Flush Lens

D - 45° Less Weephole (Internal use only)

E - 90° Less Weephole (Internal use only)

F - 90° Flush Lens

INPUT VOLTAGE

MT - 120-277 VAC Input

OPTION

WC - Supplemental Wire Clamp

B-K LIGHTING

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF B-K LIGHTING, INC. AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IS STRICTLY FORBIDDEN.

03/28/2020 SKU - 1334
SUB-2813-00

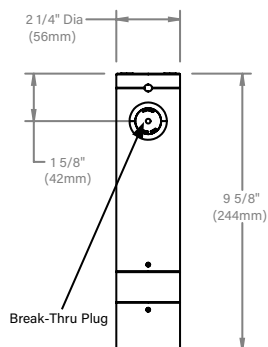
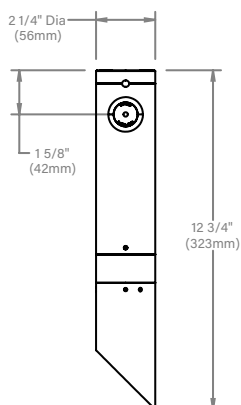
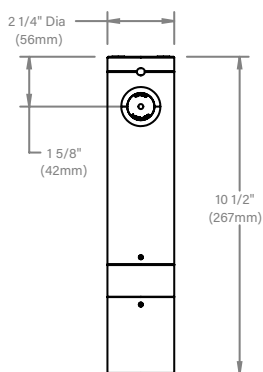
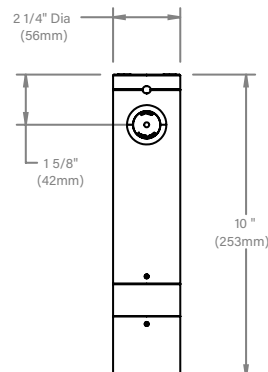
**ARTISTAR - CATENARY (INTEGRAL TRANSFORMER)**

IP66 RATED

DATE:

PROJECT:

TYPE:

EPA $\approx 0.15\text{ft}^2$ **"C" CAP**EPA $\approx 0.19\text{ft}^2$ **"D" CAP**EPA $\approx 0.16\text{ft}^2$ **"E" CAP**EPA $\approx 0.15\text{ft}^2$ **"F" CAP**

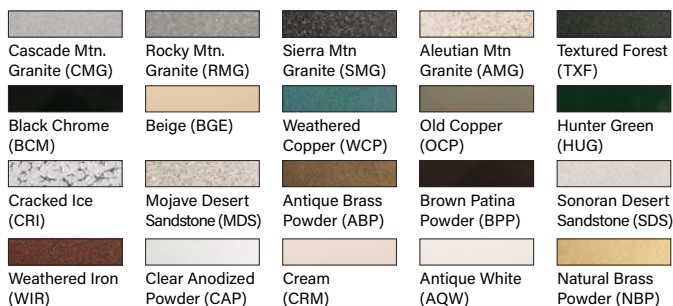
* EPA shown includes fixture body

* Fixture Weight (LIST BELOW)

	"C" CAP	"D" CAP	"E" CAP	"F" CAP
ALUMINUM	2.53IBS	2.65IBS	2.59IBS	2.55IBS
BRASS	5.86IBS	6.24IBS	6.05IBS	5.93IBS
STAINLESS	5.57IBS	5.93IBS	5.75IBS	5.63IBS

STANDARD FINISHES

[Click Here](#) to view larger, full-color swatches of all available finishes on our website.

PREMIUM FINISHES**B-K LIGHTING****MADE IN THE USA**559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF B-K LIGHTING, INC. AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IS STRICTLY FORBIDDEN.

03/28/2020 SKU - 1334
 SUB-2813-00

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: CY-AR-LED-TR-E65-WFL-A9-***-12-C-MT-WC Notes:	Type: CL SLA20-47120
------------------------------	--	--	--

ARTISTAR - CATENARY (INTEGRAL TRANSFORMER)

IP66 RATED

DATE:

PROJECT:

TYPE:

Accessories (Configure separately)

SPECIFICATIONS

ELECTRICAL	WATTAGE	7W LED
	ADJUST-E-LUME	Integral electronics allows dynamic lumen response at the individual fixture. Indexed (100% to 25% nom.) lumen output. Maintains output at desired level or may be changed as conditions require. Specify factory preset output intensity.
	WIRING	PVC coated, 18AWG, 150V, 60°C rated and certified to UL1838 standard. Anti-Wicking Connector prevents "wicking" through conductor insulation.
	TRANSFORMER	Integral, electronic transformer. 105-300VAC primary voltage. 50/60Hz. Non Dimming. 20VA maximum load.
PHYSICAL	MATERIALS	Furnished in copper-free aluminum (6061-T6), brass (360) or stainless steel (304).
	BODY	Unibody design is fully machined from solid billet and provides enclosed, water-proof wireway and integral heat sink for maximum component life. High temperature, silicone 'O' Ring provides water-tight seal.
	CAP	Fully machined and accommodates up to two (2) lens or louver media.
	LENS	Shock-resistant, tempered glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment.
	LED	Integrated solid state system and modular design with electrical quick disconnects is scalable for field upgrade and maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements and exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components. Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, overvoltage, open-circuit, and short circuit protected. Inrush current limited to <250mA (non-dimming). Conforms to Safety Std. C22.2 No. 250.13-12.
	OPTICS	Interchangeable, color-coded OPTIKIT modules permit field changes to optical distribution.
	BREAK-THRU PLUG	To create watertight seal, factory-installed break-thru plug must be used with round jacketed cable with a diameter of .130" min to .450" max (by others).
	INSTALLATION	Machined aluminum clamp for use with 1/4" O.D. stainless steel aircraft cable (by others).
	HARDWARE	Tamper-resistant, stainless steel hardware.
	OPTION	Supplemental wire support clamp provides extra strain relief.
	FINISH	StarGuard, our 15-stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating and is RoHS compliant. Powder coat or metal finish options available for brass material and metal finish option only for stainless steel material.
	WARRANTY	5-year limited warranty.
	CERTIFICATION & LISTING	UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ ANSI Standards. RoHs compliant. Suitable for indoor or outdoor use and in wet locations. IP66 Rated. Made in USA with sustainable processes.



B-K LIGHTING

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF B-K LIGHTING, INC. AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IS STRICTLY FORBIDDEN.

03/28/2020 SKU - 1334
SUB-2813-00

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: CY-AR-LED-TR-E65-WFL-A9-***-12-C-MT-WC Notes:	Type: CL SLA20-47120
------------------------------	--	--	--

LAMP & DRIVER DATA (e64, e65, e66, e74)

DATE:	PROJECT:	TYPE:
-------	----------	-------

CATALOG NUMBER LOGIC:

DRIVER DATA	Input Volts	InRush Current	Operating	Dimmable	Operation Ambient Temperature
	12VAC/DC 50/60Hz	<250mA (non-dimmed)	700mA	Magnetic Low Voltage Dimmer	-22°F-194°F (-30°C - 90°C)

LM79 DATA				L70 DATA		OPTICAL DATA			
BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	Minimum Rated Life (hrs.) 70% of initial lumens (L ₇₀)		Angle	CBCP	Delivered Lumens	Multiplier
e64	2700K	80	7	50,000		13°	5993	456	0.87
	2700K	80	7	50,000		16°	4546	445	0.87
	2700K	80	7	50,000		23°	1726	397	0.87
	2700K	80	7	50,000		31°	1131	399	0.87
e65	3000K	80	7	50,000		13°	6131	466	0.89
	3000K	80	7	50,000		16°	4650	455	0.89
	3000K	80	7	50,000		23	1766	406	0.89
	3000K	80	7	50,000		31°	1157	409	0.89
e66	4000K	80	7	50,000		13°	6889	524	
	4000K	80	7	50,000		16°	5225	511	
	4000K	80	7	50,000		23°	1984	456	
	4000K	80	7	50,000		31°	1300	459	
e74	Amber	80	7	50,000		13°	3,927	299	0.57
	Amber	80	7	50,000		16°	2,978	291	0.57
	Amber	80	7	50,000		23°	1,131	260	0.57
	Amber	80	7	50,000		31°	741	262	0.57

OPTICS

Optic	Angle
NSP - Narrow Spot	13°
SP - Spot	16°
MFL - Medium Flood	23°
WFL - Wide Flood	31°

B-K LIGHTING

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF B-K LIGHTING, INC. AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IS STRICTLY FORBIDDEN.



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____
TYPE: _____ PROJECT: _____
CATALOG #: _____

LITEISTRY™

FEATURES

- 4" architectural LED downlight delivering 600 – 4000 lm
- Five beam distributions from 0.3 to 1.2 Spacing Criteria
- Quiet reflector appearance with superior 50° optical cutoff
- 2700K – 5000K, 80+ and 90+ CRI options
- Available for New Construction (non-IC), IC and Chicago Plenum applications
- Variety of dimming protocol options including 0–10V, DALI, DMX, Lutron Forward Phase and EcoSystem
- NX Distributed Intelligence™ wired and wireless controls capability available



RELATED PRODUCTS

- [LTR-4RD-RFH Retrofit](#)
- [LTR-4RD SpectraSync](#)
- [4" LITEISTRY Family](#)
- [LTR-4RD PowerHUBB](#)

SERVICE PROGRAMS



CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Standard Non-IC, Chicago Plenum and IC options
- Painted black durable steel platform with pre-installed bar hangers
- Pre-wired junction box with snap-on covers for easy access
- Snap-in connection from driver compartment allows easy installation
- Light Engine connections use plenum rated (CMP) cable

OPTICS

- Visually pleasing 50° cutoff to source and source image
- The light distribution is free of distracting bright spots or pixelation and the perimeter has a smooth transition
- Optical grade silicone lens integral to light engine
- High purity spun aluminum reflector, self-flanged
- Flush Mount flange option with mud-in ring available
- Large selection of anodized finishes and colors
- Painted cones and flange options available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >55,000 hours (TM-21)
- Universal voltage 120V–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection, RoHS compliant
- Flicker free 0-10V dimming with 1% or <1% performance
- DALI, DMX, and Lutron Forward Phase and EcoSystem options
- Integral and remote emergency controller and battery pack options available
- NX or Lutron Vive control options available
- Refer to additional spec sheets for information on [SpectraSync™ Tunable White or Dim-to-Warm](#) or [PowerHUBB™ PoE enabled](#) solutions

INSTALLATION

- Accommodates ceiling thickness up to 2"
- Universal adjustable mounting brackets also accept 0.5" EMT conduit or 1.5" or 0.75" lathing channel (by others) or Prescolite accessory bar hangers (B24 or B6)
- Light Engine/Driver fully serviceable from above or below the ceiling

CERTIFICATIONS

- cCSAus certified to UL 1598
- Suitable for wet locations, covered ceiling, EM/ EMR: Suitable for damp locations.
- EM/EMR: Certified under UL 924 standard for emergency lighting and power equipment
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring
- ENERGY STAR® certified models available (See list and additional information on page 7)
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction. Materials under Trade Agreements effective 6/6/2020. See [Buy American Solutions](#).

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	600-4000
Wattage Range	8-52
Efficacy Range (LPW)	90-99*
Reported Life (Hours)	L90 / >55,000
Input Current (mA)	65-433 (120V)

*Based on Specular, 35K, 80 CRI

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: LTR-4RD-H-SL06L-DM1 / LTR-4RD-T SL30K8WD-S Notes:	Type: DL SLA20-47120
------------------------------	--	---	--



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

☐ = Service Program



Click icons for a list of Stocked or Quick-Ship options

ORDERING GUIDE

Example: LTR-4RD-H-SL10L-DM1-LTR-4RD-T-SL35K8MD-S

CATALOG #

HOUSING

LTR-4RD-H						
Aperture/Shape/Function	Lumen Package	Lumen Output	Driver Options	Control Options	Voltage	Housing Options
LTR-4RD-H 4" Round Downlight New Construction Housing	SL Standard Lumen 06L 600 10L 1000 15L 1500 ML Medium Lumen 20L 2000 25L 2500 30L 3000 HL High Lumen 35L 3500 40L 4000		DM1 0-10V Dimming to 1% DM01 0-10V Dimming to < 1% DMX DMX with RDM dimming to < 0.1% ² DALI DALI Dimming to 1% 2DM Lutron Hi-Lume 2-wire Dimming to 1% (120V Forward Phase only) ² EDM Lutron Hi-Lume EcoSystem Dimming to 1% ²	NXE NX Enabled, Dual SmartPorts ³ NXWE NX Wireless Enabled ³ NXWD NX Wireless Enabled, Dual SmartPorts ³ LV Lutron Vive Enabled, 0-10V (requires 0-10V driver) LVE Lutron Vive Enabled, EcoSystem, (requires EDM)	Standard 120-277V 34 347V ⁶	CP Chicago Plenum ^{7,9} IC IC rated ^{8,9} EM Emergency Battery Pack with integral test switch and indicator light ⁹ EMR Emergency Battery Pack with remote test switch and indicator light ⁹ DTS Device Transfer Switch with Dimming Bypass ^{9,11} GTD Generator Transfer Device ⁹ F Fuse

TRIM

LTR-4RD-T				
Aperture/Shape/Function	Lumen Package	CCT	CRI	Distribution
LTR-4RD-T 4" Round Downlight Light Engine/Trim Assembly	SL Standard Lumen ML Medium Lumen HL High Lumen	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K ¹	8 80+CRI 9 90+CRI	VNR Very Narrow (0.3 SC/20") ¹³ NR Narrow (0.4 SC/29") MD Medium (0.7 SC/44") WD Wide (0.9 SC/61") XW Extra Wide (1.2 SC/78")

TRIM CONTINUED

Reflector Finish	Reflector Color	Flange Color Options	Lower Trim Options	Reflector Options
Finish not applicable with painted reflectors (WC or BC)	Standard Clear	Standard matches reflector color	EM Pre-punched reflector for EM integral test switch and indicator	AM Antimicrobial Coating ⁵
S Specular	CG Champagne Gold	WT White Flange ⁴	FM Flush Mount Mud-in Ring ¹⁰	
SS Semi-Specular	BL Black	BT Black Flange ⁴	WF Wide Flange	
MFC American Matte™	LW Light Wheat			
VS Softglow®	PW Pewter			
VSS SoftSheen™	WC Painted White Cone and Flange			
	BC Painted Black Cone and Flange			

Accessories

- ☐ **B24** Set of two (2) 24" bar hangers for T-bar ceilings
- ☐ **B6** Set of two bar hangers for ceiling joist up to 24" centers
- ☐ **FMR4-R** Flush Mount Mud-In Ring Accessory, 4" Round
- ☐ **LiteGear** LiteGear® Inverter, 125VA-250VA
- ☐ **LPS Series** LightPower Micro-Inverter, 20VA-55VA
- ☐ **MOR4-R-WH** Metal Oversized Ring, 4" Round, White (8.25" outside diameter)
- ☐ **MOR4-R-BL** Metal Oversized Ring, 4" Round, Black (8.25" outside diameter)
- ☐ **LTR-SCA4-__** Sloped Ceiling Adapter, 4", White ¹²

Notes:

- 1 5000K available in 80+ CRI only.
- 2 2DM, EDM, DMX available in 10L-35L.
- 3 NX requires DM1 driver option.
- 4 WT not needed for WC, BT not needed for BC.
- 5 AM available with WC or Specular Clear (S or SWT). Consult factory for other colors.
- 6 347V requires DM1 driver option; not available in 06L or with Controls F, DTS, GTD, EM, EMR.
- 7 CP available up to 20L; not available with DMX, Controls, or EMR options.
- 8 IC available up to 20L; not available with Controls options.
- 9 Housing options (except Fuse) not available in combination.
- 10 Flush Mount Flange (FM) requires FMR accessory (sold separately).
- 11 DTS available with DM1, DM01, DALI, or EDM; not available with LVE.
- 12 Specify slope angle 5°-35° in 5° increments. Not available with EM, WF, or FM options.
- 13 VNR available up to 30L.

Submitted by Swaney Lighting		Catalog Number: LTR-4RD-H-SL06L-DM1 / LTR-4RD-T SL30K8WD-S Notes:	Type: DL SLA20-47120
	Job Name: MERCY HOSPITAL SITE LIGHTING		



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

CONTROLS

NX Distributed Intelligence™ Lighting Controls:

Supports applications in a variety of deployment options- wired, wireless, hybrid. Integrates with and enables a wide array of luminaires including those with SpectraSync™ Color Tuning Technology.



NX INTEGRATED CONTROLS REFERENCE								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wired								
NXE	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ¹
NX Networked – Wireless								
NXWE ²	N/A	Yes	Yes	No	No	Yes	Yes	No ³
NX Networked – Wired/Wireless								
NXWD	N/A	Yes	Yes	No	No	Yes	Yes	Requires NXBTC/R ^{1,3}

1 NXBTC/R needs to be plugged into an available NX SmartPort™ on the fixture network

2 Programming via App requires factory assistance

3 To program NXWE option, need to consult factory. If connected to an area controller, programming can be done from that

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: LTR-4RD-H-SL06L-DM1 / LTR-4RD-T SL30K8WD-S Notes:	Type: DL SLA20-47120
------------------------------	--	---	--



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PERFORMANCE DATA TABLE

Performance data provided below is for 3500K, 80 CRI with Specular Clear reflector finish/color

Lumen Package	Nominal Lumens	Distribution	"Delivered Lumens"	Watts	LPW
06L	600	Very Narrow	691	7.6	91
		Narrow	785	7.8	101
		Medium	726	7.8	93
		Wide	664	7.8	85
		Extra Wide	644	7.8	83
10L	1000	Very Narrow	1132	11.8	96
		Narrow	1255	12.0	105
		Medium	1160	12.0	97
		Wide	1062	12.0	89
		Extra Wide	1030	12.0	86
15L	1500	Very Narrow	1623	17.2	94
		Narrow	1795	18.6	97
		Medium	1660	18.6	89
		Wide	1519	18.6	82
		Extra Wide	1474	18.6	79
20L	2000	Very Narrow	2032	22.4	91
		Narrow	2238	22.5	99
		Medium	2152	22.5	96
		Wide	2059	22.5	92
		Extra Wide	2028	22.5	90
25L	2500	Very Narrow	2447	28.6	86
		Narrow	2985	27.8	107
		Medium	2760	27.8	99
		Wide	2526	27.8	91
		Extra Wide	2451	27.8	88
30L	3000	Very Narrow	2855	35.9	80
		Narrow	3583	34.6	104
		Medium	3313	34.6	96
		Wide	3032	34.6	88
		Extra Wide	2941	34.6	85
35L	3500	Narrow	4280	42.9	100
		Medium	3957	42.9	92
		Wide	3622	42.9	84
		Extra Wide	3514	42.9	82
40L	4000	Narrow	4885	51.5	95
		Medium	4517	51.5	88
		Wide	4134	51.5	80
		Extra Wide	4011	51.5	78

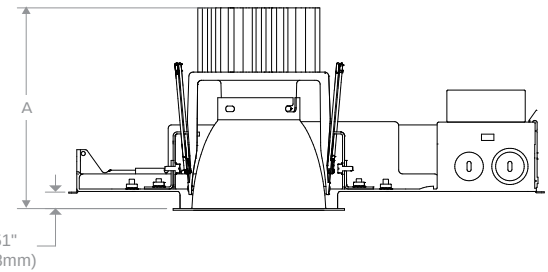
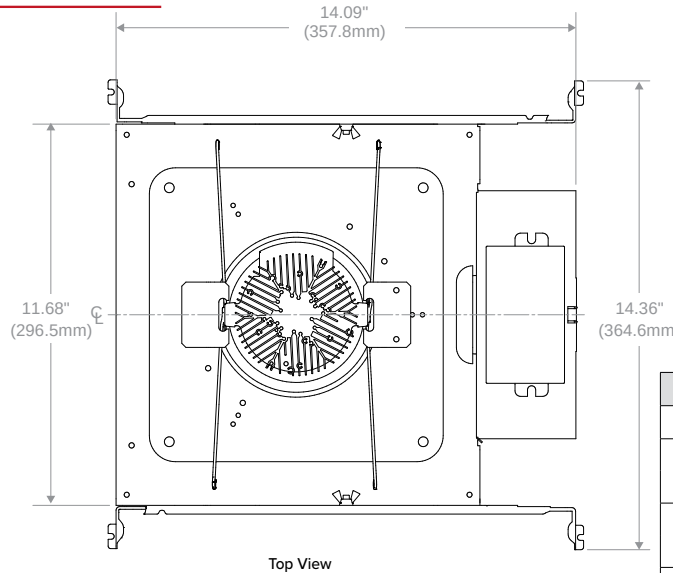
**LTR-4RD**

LITE|STRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

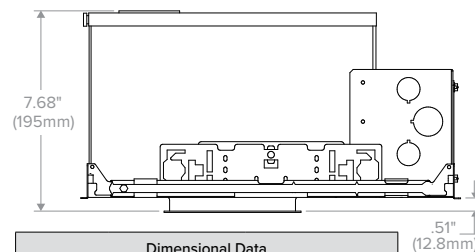
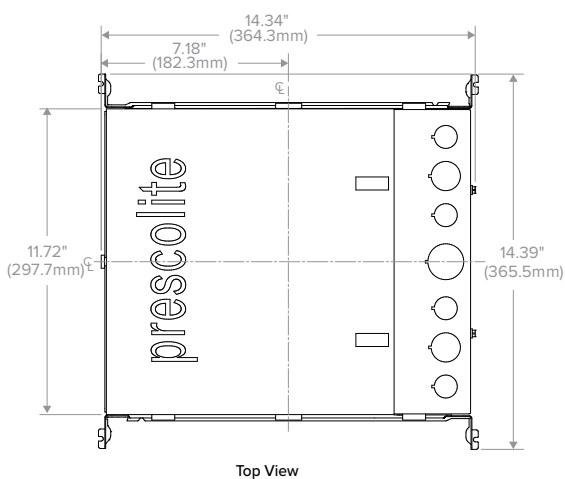
TYPE: _____ PROJECT: _____

CATALOG #: _____

DIMENSIONS

Dimensional Data			Lumen Package	"A"
Aperture	4.00" (101.6mm)		06L-15L	4.97" (126.2mm)
	5.25" (133.4mm)		20L-30L	6.15" (156.2mm)
Flange:	4.50" (114.3mm)		35L-40L	7.33" (186.2mm)
	5.00" (127.0mm)			
Ceiling Cutout:	5.12" (130.0mm)			
	5.12" (130.0mm)			
Ceiling Thickness:	0.50" to 2.00" (12.7mm to 50.8mm)			
	0.50" to 1.75" (12.7mm to 44.6mm)			

SCA Sloped Ceiling Adapter accessory available, see [LTR-SCA specification sheet](#) and [installation instructions](#) for dimensional data and other details.

LTR-4RD-H New Construction

Dimensional Data		
Aperture	4.00" (101.6mm)	
	5.25" (133.4mm)	
Flange:	4.50" (114.3mm)	
	5.00" (127.0mm)	
Ceiling Cutout:	5.12" (130.0mm)	
	5.12" (130.0mm)	
Ceiling Thickness:	0.50" to 2.00" (12.7mm to 50.8mm)	
	0.50" to 1.75" (12.7mm to 44.6mm)	

SCA Sloped Ceiling Adapter accessory available, see [LTR-SCA specification sheet](#) and [installation instructions](#) for dimensional data and other details.

LTR-4RD-H IC/CP


Job Name:
 MERCY HOSPITAL SITE LIGHTING

Catalog Number:
 LTR-4RD-H-SL06L-DM1 / LTR-4RD-T
 SL30K8WD-S

Notes:

Type:

DL

SLA20-47120

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: LOCATION:

TYPE: PROJECT:

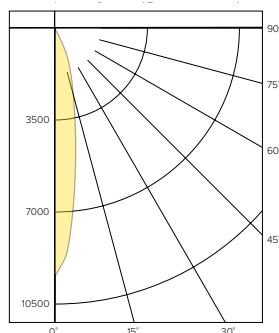
CATALOG #:

PHOTOMETRY**LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8VNR-S****LUMINAIRE DATA**

Test No.	20.01331
Description	2000 lm, Very Narrow, 3500K, 80 CRI
Delivered Lumens	2032
Watts	22.4W
Efficacy	91
Mounting	Recessed
Spacing Criterion	0.3
Beam Angle (FWHM)	20

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2011	99.0
0-60	2032	100.0
0-90	2032	100.0
0-180	2032	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	9388
5	7360
15	2780
25	1073
35	198
45	20
55	0
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	3489
55°	0
65°	0
75°	0
85°	0

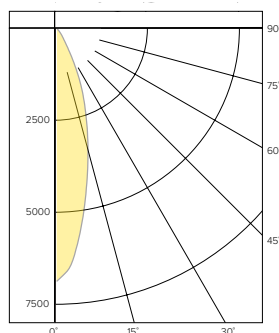
*Candela/Square Meter

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8NR-S**LUMINAIRE DATA**

Test No.	19.00532
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	2238
Watts	22.5W
Efficacy	99.3
Mounting	Recessed
Spacing Criterion	0.4
Beam Angle (FWHM)	29

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2208	98.6
0-60	2237	99.9
0-90	2238	100.0
0-180	2238	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	6877
5	6035
15	3284
25	1313
35	260
45	26
55	3
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4535
55°	645
65°	292
75°	0
85°	0

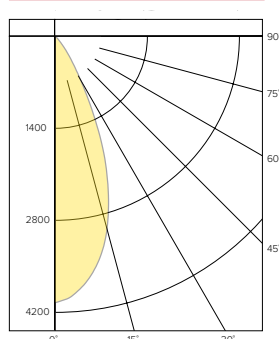
*Candela/Square Meter

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8MD-S**LUMINAIRE DATA**

Test No.	19.00533
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	2152
Watts	22.5W
Efficacy	95.6
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	44

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2113	98.2
0-60	2151	99.9
0-90	2152	100.0
0-180	2152	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	4053
5	3893
15	3037
25	1493
35	366
45	34
55	3
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5931
55°	645
65°	292
75°	0
85°	0

*Candela/Square Meter

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

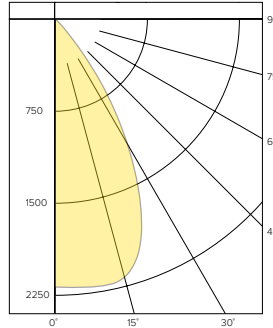
CATALOG #: _____

PHOTOMETRY CONTINUED**LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8WD-S****LUMINAIRE DATA**

Test No.	19.00534
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	2059
Watts	22.5W
Efficacy	91.6
Mounting	Recessed
Spacing Criterion	0.9
Beam Angle (FWHM)	61

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1983	96.3
0-60	2056	99.8
0-90	2059	100.0
0-180	2059	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	2201
5	2210
15	2051
25	1504
35	692
45	169
55	10
65	3
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	11338
55°	1075
65°	584
75°	477
85°	0

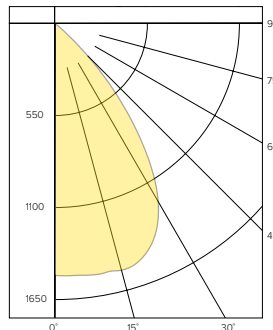
*Candela/Square Meter

LTR-4RD-H-ML20L-DM1 / LTR-4RD-T-ML35K8XW-S**LUMINAIRE DATA**

Test No.	19.00535
Description	2000 lm, Extra Wide, 3500K, 80 CRI
Delivered Lumens	2028
Watts	22.5W
Efficacy	90.2
Mounting	Recessed
Spacing Criterion	1.2
Beam Angle (FWHM)	78

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1794	88.5
0-60	2025	99.8
0-90	2028	100.0
0-180	2028	100.0

POLAR GRAPH**CANDELA DISTRIBUTION**

Degree	Candela
0	1235
5	1252
15	1392
25	1454
35	1010
45	256
55	6
65	2
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	44656
55°	1290
65°	584
75°	231
85°	477

*Candela/Square Meter

LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9
Multiplier	0.94	0.98	1.00	1.01	1.02	0.81	0.84	0.85	0.85

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

REFLECTOR FINISH MULTIPLIER (Based on Clear (Standard) Color)

Option	Specular (S)	Semi-Specular (SS)	American Matte (MFC)	Softglow (VS)	Softsheen (VSS)
Multiplier	1	1	0.984	0.888	0.938

REFLECTOR COLOR MULTIPLIER (Based on Semi-Specular (SS) Finish)

Option	Clear (Standard)	Champagne Gold (CG)	Black (BL)	Light Wheat (LW)	Pewter (PW)	White Cone (WC)	Black Cone (BC)
Multiplier	1	0.974	0.444	0.861	0.915	0.984	0.442

Multiply FINISH x COLOR to calculate other reflector finish and color combinations. Example: SoftGlow Pewter (VSPW) = 0.888 (VS) x 0.915 (PW) = 0.813



Job Name:
MERCY HOSPITAL SITE LIGHTING

Catalog Number:

LTR-4RD-H-SL06L-DM1 / LTR-4RD-T
SL30K8WD-S

Notes:

Type:**DL**

SLA20-47120

**LTR-4RD**

LITEISTRY 4" ROUND DOWNLIGHT

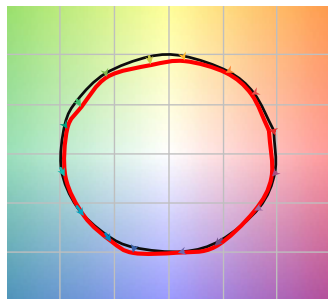
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

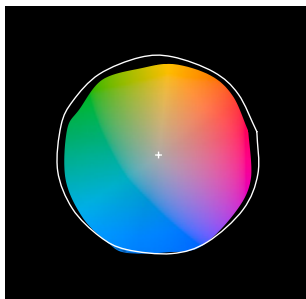
TM-30 DATA

COLOR VECTOR GRAPHIC
3500K, 90 CRI



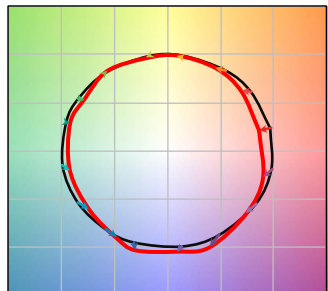
— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 90 CRI



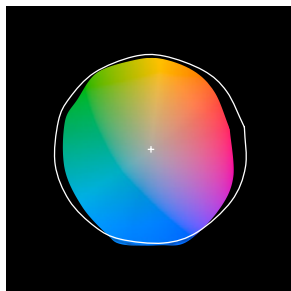
TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_t	84	88
R_g	95	95
CCT (K)	3411	3419
D_{uv}	0.0015	0.0042
x	0.4120	0.4147
y	0.3974	0.4052
CIE R_a	84	93
CIE R_g	11	62

COLOR VECTOR GRAPHIC
3500K, 80 CRI



— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 80 CRI



HUBBELL
Lighting

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: LTR-4RD-H-SL06L-DM1 / LTR-4RD-T SL30K8WD-S Notes:	Type: DL SLA20-47120
------------------------------	--	---	--



LTR-4RD

LITEISTRY 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

WATTAGE DATA		
Lumen Output	Nominal Lumens	Wattage
06L	600	8
10L	1000	12
15L	1500	19
20L	2000	23
25L	2500	28
30L	3000	35
35L	3500	43
40L	4000	52

* Wattage may vary based on configuration and options selected

ADDITIONAL INFORMATION

DIMMING COMPATIBILITY CHART		
Dimming Driver	Manufacturer	Web Link
DM1 /DM01	Lutron DDTV	http://bit.ly/1jSvZg
DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9
EDM	Lutron	http://bit.ly/1vtjHA1
2DM	Lutron	http://bit.ly/1S4WjXK

DMX

See instruction sheet on www.prescolite.com for connection & installation information.

Central Inverters

For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

LiteGear: www.dual-lite.com/products/litegear_lg_series

LPS Series: www.dual-lite.com/products/lps

ENERGY STAR®

For a list of certified models, click on the ENERGY STAR® MODELS link or visit www.energystar.gov.

All product and company names, logos and product identifiers are trademarks ® or registered trademarks ® of Hubbell Lighting, Inc. or their respective owners. Use of them does not necessarily imply any affiliation with or endorsement by such respective owners.

Submitted by Swaney Lighting		Catalog Number:	Type:
	Job Name: MERCY HOSPITAL SITE LIGHTING	LTR-4RD-H-SL06L-DM1 / LTR-4RD-T SL30K8WD-S Notes:	DL SLA20-47120

This page intentionally left blank for printing purposes

Submitted by Swaney Lighting		Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: K51-T4-MO-9030-WIRED120-277V-PS520-188-** Notes: SPECIFY FINISH	Type: K4 SLA20-47120
------------------------------	--	--	--	--

Kick™ – K5 Medium Scale

TYPE

FEATURES

- Integral Motion Sensor
- wiScape enabled
- IDA approved
- 20kV/10kA surge protection
- ANSI C136.41 receptacle
- IES Type II, III and IV distributions
- 3000K , 4000K, 5000K CCT
- Integral thermal protection
- 0-10V dimming ready
- IP66 optical system
- 120-277, 347 and 480VAC input
- Staggered twin mounting
- ANSI C136.31-2010 4G Rated



3000K and warmer CCTs only
MO-XX30 configurations only

ORDERING CODE

1	2	3	4	5	6	7	8	9	10
Model	Optics	Optical Finish	Light Engine	Controls	Fuse	Voltage	Mounting	Mounting Options	Fixture Finish

1. MODEL

5" wide luminaire

- K51 Single fixture**
- K52 Two fixtures 180° apart
- K53 Three fixtures 90° apart
- K54 Four fixtures 90° apart

2. OPTICS

Distribution Type, see "Luminaire Performance" on page 3

T2 IES Type II

T3 IES Type III

T4 IES Type IV

3. OPTICAL FINISH

Standard white or may choose one. See

'Luminaire Performance' on page 3 for detail.

MO Optics in Matte Black finish^{OS}

FO Optics in fixture finish

4. LIGHT ENGINE

See 'Luminaire Performance' on page 3 for detail, 70 CRI

- 18050 18,000 nominal lumens, 5000K CCT, 174 watts
- 18040 18,000 nominal lumens, 4000K CCT, 174 watts
- 18030 18,000 nominal lumens, 3000K CCT, 174 watts
- 12050 12,000 nominal lumens, 5000K CCT, 122 watts
- 12040 12,000 nominal lumens, 4000K CCT, 122 watts
- 12030 12,000 nominal lumens, 3000K CCT, 122 watts
- 9050 9,000 nominal lumens, 5000K CCT, 87 watts
- 9040 9,000 nominal lumens, 4000K CCT, 87 watts
- 9030 9,000 nominal lumens, 3000K CCT, 87 watts**

560nm monochromatic amber and or custom lumen package available by request. ¹

5. CONTROL

May choose one

- MCPCR 7-Position Receptacle
- WIR wiScape connectivity
- WIRSC wiScape + motion sensor
- SCP Motion sensor + Photocell ⁴
- SWP SiteSync Pre-commissioned ⁵
- SWPM SiteSync Pre-commissioned + Motion Sensor⁶

SCPREMOTE Handheld commissioning tool ⁴

SWUSB SiteSync loaded on USB flash drive (Windows® operating system only) ⁶

SWTAB SiteSync Windows® based Tablet ⁶

SWBRG SiteSync Wireless Bridge Node ⁶

SW7PR SiteSync 7 Pin on fixture module On/ Off/ Dim, Daylight Sensor 120-480VAC

6. FUSE

May choose one

- SF 120, 277, 347 Volt input
- DF 208, 240, 480 Volt input

7. VOLTAGE

120-277VAC input standard or may choose one

- 347 347VAC input
- 480 480VAC input

8. MOUNTING

Integral Aluminum Pole

- PS510-188 10' luminaire height
- PS512-188 12' luminaire height
- PS514-188 14' luminaire height
- PS516-188 16' luminaire height
- PS518-188 18' luminaire height
- PS520-188 20' luminaire height**

Integral Steel Pole

- PS525-250 25' luminaire height
- PS530-250 30' luminaire height

Tenon Mount

- TA23 Slips over a 2 3/8" / 60mm
Ø x 4" / 102mm tall tenon

Side Mount

- SMK Mounts to the side of a square pole,
K51 only

Wall Mount

- WMK K51 only

9. MOUNTING OPTIONS

Twin mount at staggered heights

Mounting holes for a fixture at 180°, K51...PS5... only, may choose one

- TS8 8' from bottom
- TS10 10' from bottom
- TS12 12' from bottom
- TS14 14' from bottom
- TS16 16' from bottom
- TS18 18' from bottom

Pole Accessories

May choose one

- GFI GFCI receptacle, 24" from top of pole
- RBC Duplex receptacle box with clear cover,
wiring device(s) not included

10. FIXTURE FINISH

Specify Std. finish

- AGN Antique Green
- BL Black
- BLT Matte Black
- CRT Corten
- DB Dark Bronze
- DGN Dark Green
- GT Graphite
- LG Light Grey
- MAL Matte Aluminum
- MDB Bronze Metallic
- MG Medium Grey
- TT Titanium
- WH Arctic White
- WDB Weathered Bronze
- VBU Verde Blue

Premium Color

- SHK Shamrock
- SPP Salt and Pepper
- SFM Seafoam
- WCP Weathered Copper
- RAL RAL 4 digit Color
- CUSTOM Custom Color

¹ Contact factory

⁴ Handheld commissioning tool is required to separately configure or adjust any number of SCP sensors

⁵ Specify group and zone at time of order. See www.hubbellighting.com/sitesync for more details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node.

⁶ When ordering with SiteSync, one of the following interface options must be chosen and ordered separately. Each option contains the SiteSync License, GUI and Bridge Node.



ARCHITECTURAL AREA LIGHTING
17760 Rowland Street | City of Industry | CA 91748
P 626.968.5666 | F 626.369.2695 | www.aal.net
Copyright © 2014 September 4, 2020 11:48 AM

JOB	_____
TYPE	_____
NOTES	_____

| 1 |



Job Name:
MERCY HOSPITAL SITE LIGHTING

Catalog Number:
K51-T4-MO-9030-WIRED120-277V-
PS520-188-**

Notes: SPECIFY FINISH

Type:

K4

SLA20-47120

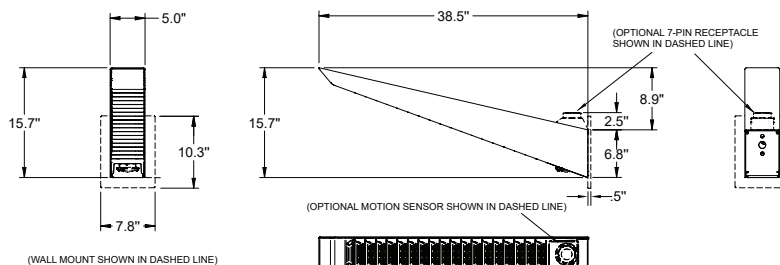
Kick™ – K5 Medium Scale

TYPE

Side Mounted Luminaire

Mounts to the side of 5"/127mm square pole.

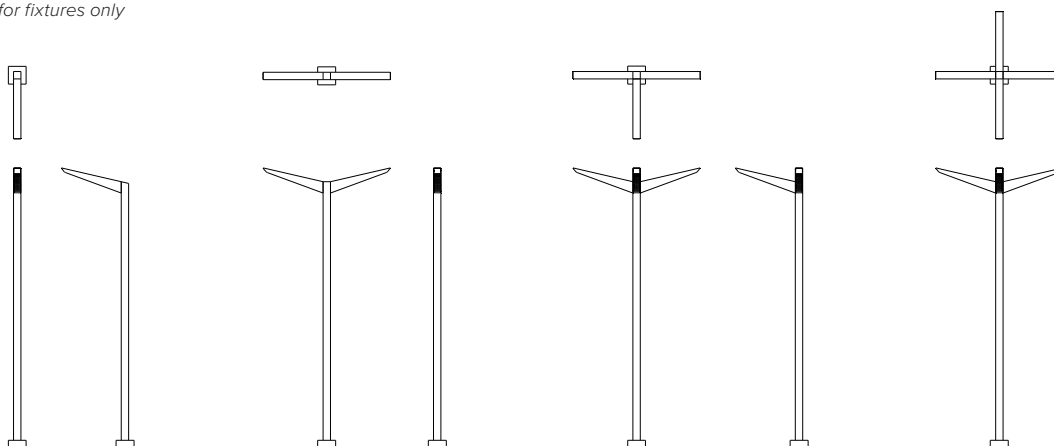
MODEL	K51-...SMK
OVERALL HEIGHT	15.7" / 399mm
OVERALL LENGTH	38.6" / 980mm
OVERALL WIDTH	5" / 127mm
WEIGHT	20 lbs.
EPA	1.4



Integral Pole Luminaire

See page 6 for height and mounting detail

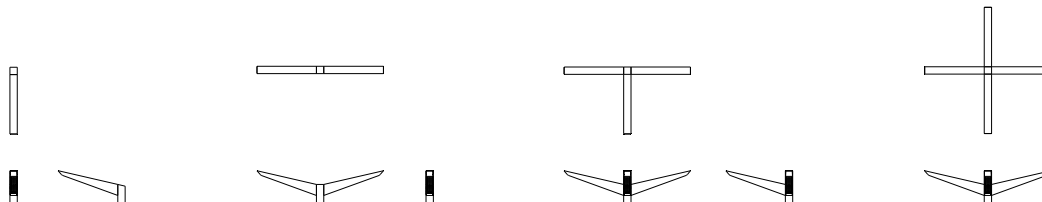
* Weight and EPA for fixtures only



MODEL	K51-...-PS5XX-188	K52-...-PS5XX-188	K53-...-PS5XX-188	K54-...-PS5XX-188
OVERALL LENGTH	43.5" / 1106mm	15.5" / 390mm	49" / 1238mm	82" / 2083mm
OVERALL WIDTH	15.5" / 390mm	82" / 2083mm	82" / 2083mm	82" / 2083mm
WEIGHT	20 lbs.	40 lbs.	60 lbs.	80 lbs.
EPA*	1.4	2.7	3.1	3.1

Tenon Mount Luminaire

Slips over a 2 3/8"/60mm diameter by 4"/102mm tall tenon



MODEL	K51-...-TA23	K52-...-TA23	K53-...-TA23	K54-...-TA23
OVERALL HEIGHT	19" / 483mm	19" / 483mm	19" / 483mm	19" / 483mm
OVERALL LENGTH	43.5" / 1106mm	5" / 127mm	43.5" / 1106mm	82" / 2083mm
OVERALL WIDTH	5" / 127mm	82" / 2083mm	82" / 2083mm	82" / 2083mm
WEIGHT	25 lbs.	40 lbs.	55 lbs.	70 lbs.
EPA	1.8	3.2	3.5	3.5



ARCHITECTURAL AREA LIGHTING
17760 Rowland Street | City of Industry | CA 91748
P 626.968.5666 | F 626.369.2695 | www.aal.net
Copyright © 2014 September 4, 2020 11:48 AM

JOB _____
TYPE _____
NOTES _____

| 2 |

Kick™ – K5 Medium Scale

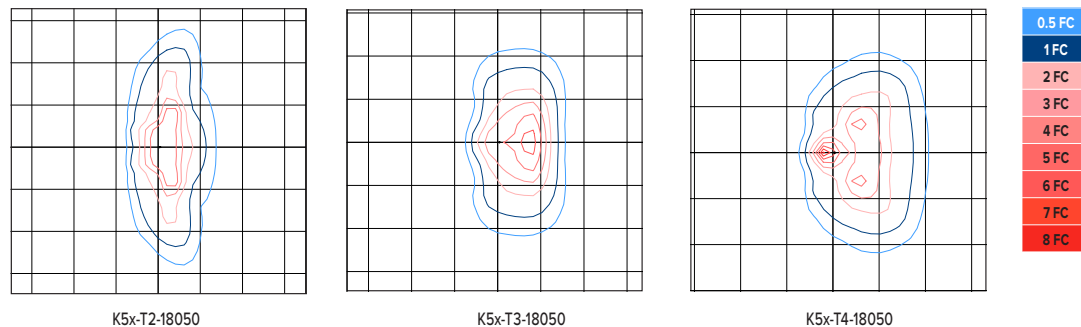
TYPE

LUMINAIRE PERFORMANCE

Configuration				Ordering Code															
Light Engine	Optical Finish	Distribution	Ordering Code	Bright White (5000K)					Neutral White (4000K)					Warm White (3000K)					Average System Watts
				Delivered Lumens	Efficacy (Lm/W)	B	U	G	Delivered Lumens	Efficacy (Lm/W)	B	U	G	Delivered Lumens	Efficacy (Lm/W)	B	U	G	
				18050					18040					18030					
18000 series	Standard White	Type 2	T2	17910	103	3	3	3	17532	101	3	3	3	17006	98	3	3	3	174
		Type 3	T3	17721	102	3	3	3	17347	100	3	3	3	16826	97	3	3	3	
		Type 4	T4	18763	108	3	3	2	18080	104	3	3	2	17537	101	3	3	2	
	Fixture Matched	Type 2	T2-FO	14593	84	3	3	3	14286	82	3	3	3	13856	80	3	3	3	
		Type 3	T3-FO	14497	84	2	3	2	14191	82	2	3	2	13765	79	2	3	2	
		Type 4	T4-FO	15794	91	3	3	2	15460	89	2	3	2	14996	86	2	3	2	
	Matte Black	Type 2	T2-MO	15315	88	3	0	2	14787	85	3	0	2	14343	83	3	0	2	
		Type 3	T3-MO	15153	87	2	0	2	14631	84	2	0	2	14192	82	2	0	2	
		Type 4	T4-MO	15794	91	3	0	2	15249	88	3	0	2	14791	85	3	0	2	
						12050					12040					12030			
12000 series	Standard White	Type 2	T2	13369	109	3	3	3	13087	107	3	3	3	12694	104	3	3	3	122
		Type 3	T3	13228	108	2	3	2	12949	106	2	3	2	12560	103	2	3	2	
		Type 4	T4	13787	112	3	3	2	13496	110	2	3	2	13091	107	2	3	2	
	Fixture Matched	Type 2	T2-FO	10893	90	3	3	3	10664	88	3	3	3	10344	85	3	3	3	
		Type 3	T3-FO	10821	89	2	3	2	10593	87	2	3	2	10275	84	2	3	2	
		Type 4	T4-FO	11789	97	3	3	2	11541	95	2	3	2	11194	92	2	3	2	
	Matte Black	Type 2	T2-MO	10893	90	3	0	2	10664	88	3	0	2	10343	85	3	0	2	
		Type 3	T3-MO	10821	89	2	0	2	10593	87	2	0	2	10275	84	2	0	2	
		Type 4	T4-MO	11789	97	2	0	2	11541	95	2	0	2	11194	92	2	0	2	
						9050					9040					9030			
9000 series	Standard White	Type 2	T2	10103	117	2	3	2	9895	114	2	3	2	9692	111	2	3	2	87
		Type 3	T3	9920	115	2	2	2	9715	112	2	2	2	9462	109	2	2	2	
		Type 4	T4	10437	119	2	3	2	10223	117	2	3	2	9957	114	2	3	2	
	Fixture Matched	Type 2	T2-FO	8171	94	2	3	2	8003	92	2	3	2	7794	90	2	3	2	
		Type 3	T3-FO	8118	94	2	2	2	7951	92	2	2	2	7744	89	2	2	2	
		Type 4	T4-FO	8927	103	2	3	2	8744	100	2	3	2	8516	98	2	3	2	
	Matte Black	Type 2	T2-MO	8171	94	2	0	1	8003	92	2	0	1	7794	90	2	0	1	
		Type 3	T3-MO	8118	94	1	0	1	7951	92	1	0	1	7744	89	1	0	1	
		Type 4	T4-MO	8927	103	2	0	2	8744	101	2	0	2	8516	98	2	0	2	

-MO.ies files should be used for -FO configurations in application layouts.

ISOLINE TEMPLATES 30' Mounting Height



ELECTRICAL CHARACTERISTICS

Ordering Code	LED Current (mA)	System Wattage (W)	Input				Min. Power Factor	Max THD (%)	Dimming Range (V)	Source/Sink Current (mA)	Inrush Current Peak											
			Amps AC								HZ	(A)				T@50% (μs)						
												120	277	347	480	120	277	347	480			
180XX	1000	173	1.4	0.6	0.5	0.4	50/60	>0.9	20	0-10	1	44	131	48	127	190		400	140			
120XX	700	122	1.0	0.4	0.4	0.3																
90XX	500	87	0.7	0.3	0.3	0.2																

ARCHITECTURAL AREA LIGHTING
 17760 Rowland Street | City of Industry | CA 91748
 P 626.968.5666 | F 626.369.2695 | www.aal.net
 Copyright © 2014 September 4, 2020 11:48 AM

JOB _____
 TYPE _____
 NOTES _____


Job Name:
 MERCY HOSPITAL SITE LIGHTING

Catalog Number:
 K51-T4-MO-9030-WIRED120-277V-
 PS520-188-**

Notes: SPECIFY FINISH

Type:

K4

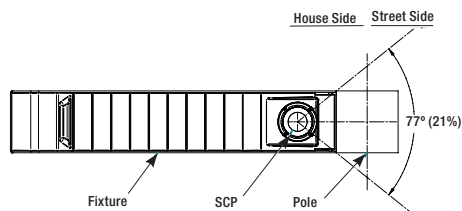
SLA20-47120

Kick™ – K5 Medium Scale

TYPE

SENSOR DETECTION RANGE

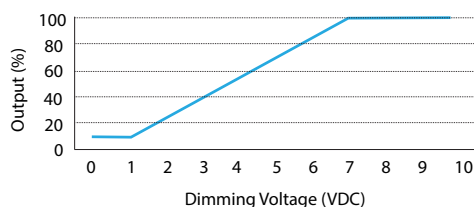
		SENSOR MOUNTING HEIGHT							RATIO
		8'	10'	12'	14'	16'	18'	20'	
COVERAGE DIAMETER	SCP	20'	25'	30'	35'	40'	45'	50'	1:2.5
	WIRSC	16'	20'	24'	28'	32'	36'	40'	1:2



TM-21 LIFETIME CALCULATION

Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
	25	50	60 (TM-21)	75	100	
25	98%	97%	96%	95%	94%	>60Khrs.
40	97%	96%	95%	94%	93%	

DIMMING CURVE



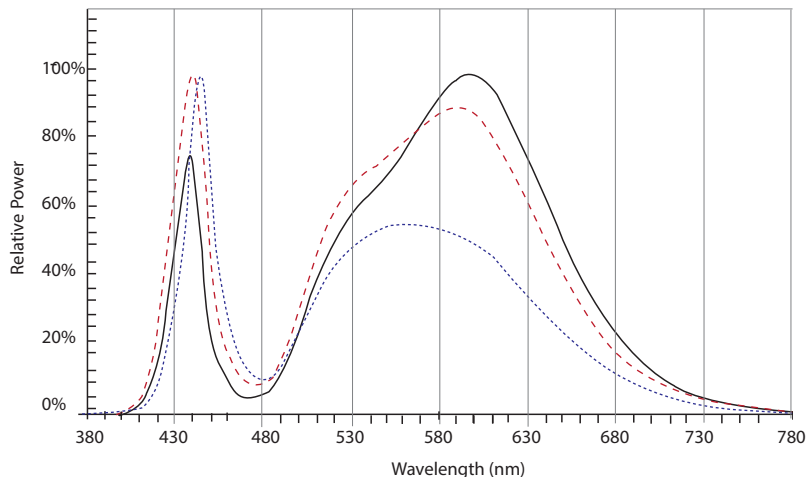
Note: Fixture does not dim to off, fixture dims to 10% minimum output.

COLOR CHARACTERISTICS

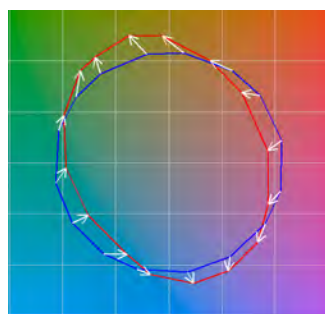
Value	Ordering Code		
	XX30	XX40	XX50
Rf	69	69	71
Rg	99	99	98
CCT(K)	3122	3852	5020
Duv	0.001	0.0004	0.0005
CIE Ra	74	73	74

Note: TM-30 reported at the discrete LED level, not fixture level.

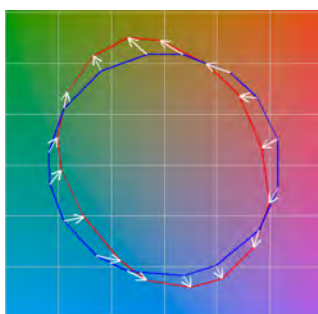
SPECTRAL POWER DISTRIBUTION COMPARISON



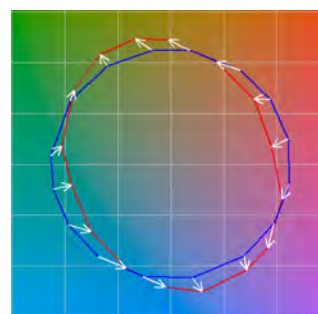
COLOR VECTOR GRAPHIC


 Reference Illuminant
 Series3 Series7
 Test Source
 Series4 Series8
 Series1 Series9
 Series2 Series10

XX30


 Reference Illuminant
 Series3 Series7
 Test Source
 Series4 Series8
 Series1 Series9
 Series2 Series10

XX40


 Reference Illuminant
 Series3 Series7
 Test Source
 Series4 Series8
 Series1 Series9
 Series2 Series10

XX50


 ARCHITECTURAL AREA LIGHTING
 17760 Rowland Street | City of Industry | CA 91748
 P 626.968.5666 | F 626.369.2695 | www.aal.net
 Copyright © 2014 September 4, 2020 11:48 AM

JOB

TYPE

NOTES

| 4 |

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: K51-T4-MO-9030-WIRED120-277V-PS520-188-** Notes: SPECIFY FINISH	Type: K4 SLA20-47120
------------------------------	---	--	--

Kick™ – K5 Medium Scale

TYPE

SPECIFICATIONS

HOUSING

- Housing shroud shall be of fabricated 5052-H32 aluminum alloy with a rear mounting interface that shall be of fabricated 304 stainless steel.
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Each MCPCB and optic shall be sealed to an extruded 6063-T6 aluminum alloy heat spreader and sealed with a continuous one piece injection molded silicone rubber gasket. IP66.
- Patent Pending design of optical array shall independently shield each LED optic across the length of the aperture.
- Optical surfaces shall be painted white unless the optional fixture finish (FO) or matte black finish (MO) is selected.
- Optional matte black finish optics (MO) are required to meet UO classification with zero percent uplight.
- Optional fixture finish optical surfaces (FO) shall not exceed BUG ratings of the standard white finish and shall be greater than or equal to the delivered lumens of the optional matte black optical surface finish (MO).

ELECTRICAL

- Drivers shall be in direct contact with the aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems approved dimmers include Lutron Diva AVTV, Lutron Nova NDTV and NDTV.
- Luminaire shall be capable of operating at

100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.

- Luminaires not configured with a control system or ANSI C136 receptacle option shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Wireless enabled fixtures shall support bi-directional radio frequency (RF) communications utilizing IEEE 802.15.4 operating in the 2.4GHz ISM band.
- Up to 1000' wireless range may be reduced by physical obstructions between lighting fixtures.
- Motion Sensor shall use passive infrared (PIR) sensing technology that reacts to changes in infrared energy (moving body heat) within the coverage area. Careful consideration must be given to obstructions that may block the sensor's line of sight.
- Factory default settings for SCP option shall be:
 - High mode: 10V
 - Low mode: 1V
 - Ramp-up rate: disabled
 - Fade-down rate: disabled
 - Photocell: Off
 - Sensitivity: Full
 - Time Delay: Fade to low: 5 minutes
 - Time Delay: Fade to off: 1 hour

MOUNTING AND INSTALLATION

- Integral pole mount luminaires shall require assembly of fixture(s) to the pole, mounting hardware, anchor bolts and anchor bolt template shall be included. *See page 6 for additional considerations specific to the integral pole.*
- Tenon mount luminaires shall require assembly of fixture(s) to the tenon adapter, mounting hardware shall be included. Tenon adapter shall be secured to the tenon with eight 5/16-18 stainless steel set screws.
- Side mount luminaires shall be supplied

with hardware compatible with AAL mountings.

- Twin mounted staggered height fixtures shall be configured separately.

SERVICING

- Service access to the optical array and driver assembly shall be via a tool-less internal latch and have an audible click.
- Optical array shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the optical array shall be able to be removed for service by lifting the assembly up off the rear hinge and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FINISH

- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- IEC 66262 Mechanical Impact Code IK10
- IDA approved, 3000K and warmer CCTs only.
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 6/06/2020. [See Buy American Solutions.](#)

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:
<http://www.hubbellighting.com/resources/warranty/>



ARCHITECTURAL AREA LIGHTING
 17760 Rowland Street | City of Industry | CA 91748
 P 626.968.5666 | F 626.369.2695 | www.aal.net
 Copyright © 2014 September 4, 2020 11:48 AM

JOB	_____
TYPE	_____
NOTES	_____

| 5 |



Kick™ – K5 Medium Scale

TYPE

SPECIFICATIONS

Integral Pole

MODEL	HEIGHT		SHAFT		WT	MAXIMUM ALLOWABLE EPA (MPH)									
	OVERALL	POLE	SECTION	MATERIAL		85	90	100	105	110	120	130	140	145	150
K5X-PS510-188	10'9" / 3.28m	10'	5"SQ x .188"	ALUMINUM	61	25	25	23	20.5	18.5	15	12.3	10.1	9.1	8.3
K5X-PS512-188	12'9"/3.89m	12'	5"SQ x .188"	ALUMINUM	69	25	22.5	17.8	15.7	14	11	8.7	6.9	6.1	5.4
K5X-PS514-188	14'9"/4.50m	14'	5"SQ x .188"	ALUMINUM	78	20.6	17.9	13.7	11.9	10.4	7.9	6	4.4	3.7	3.1
K5X-PS516-188	16'9"/5.10m	16'	5"SQ x .188"	ALUMINUM	86	16.5	14.1	10.4	8.9	7.6	5.4	3.7	2.3	1.7	1.1
K5X-PS518-188	18'9"/5.71m	18'	5"SQ x .188"	ALUMINUM	95	12.9	10.9	7.6	6.3	5.1	3.2	1.7	0.5	-	-
K5X-PS520-188	20'9"/6.32m	20'	5"SQ x .188"	ALUMINUM	103	9.8	8.1	5.2	4	3	1.3	-	-	-	-
K5X-PS525-250	25'9"/7.85m	25'	5"SQ x .25"	STEEL	427	25	25	19.4	17.1	15.1	11.7	9	6.9	6	5.1
K5X-PS530-250	30'9"/9.38m	30'	5"SQ x .25"	STEEL	507	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4

CONSTRUCTION

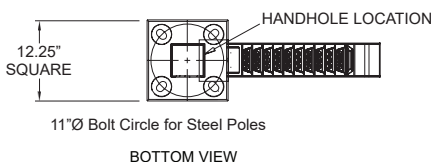
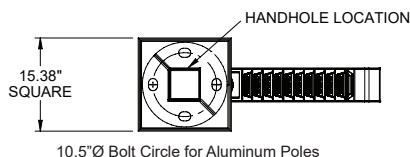
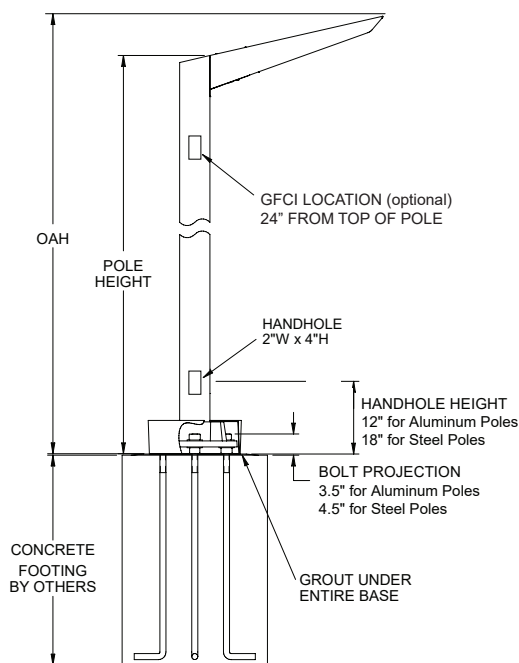
- Aluminum pole bases shall be cast aluminum #356 alloy and be heat treated to a T-6 condition.
- Aluminum pole shafts shall be extruded aluminum 6061 alloy and heat treated to a T-6 condition.
- Aluminum poles shall have a one-piece base cover included standard.
- Steel poles shall be one-piece straight steel with square cross section, flat sides and minimum 0.238" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36).
- Steel poles shall have a two-piece square aluminum base cover included standard.
- All poles shall be supplied with removable top cap.
- All poles shall have a hand hole with mounting provisions for grounding lug located behind a gasket lined cover.
- Anchor bolts shall be 1" x 36" x 4" hot dip galvanized steel, with two galvanized washers and two galvanized nuts per bolt.
- Bolt circle template shall be provided.

WARNINGS

- Caution must be exercised in the selection of a design wind speed when the pole is to be installed in a special wind region (as indicated by the wind map) or in an area where wind speed is unpredictable.
- AAL recommends consulting a local engineer when the pole is to be installed in an area that may be subject to vibration, oscillations, and other fatigue effects which are not covered by the AAL warranty.
- The use of banners or other appendages can severely affect the loading of a pole. No banner or other appendage may be attached to an AAL pole unless approved by AAL.
- If the products are to be used on an existing foundation or on other structures, the customer assumes all responsibility for the structural integrity of the existing foundation, anchorage or structures and all the consequences arising there from.

CAUTION

- Poles should never be erected without the luminaire installed. Warranty is voided if the pole is erected without the luminaire.



ARCHITECTURAL AREA LIGHTING
 17760 Rowland Street | City of Industry | CA 91748
 P 626.968.5666 | F 626.369.2695 | www.aal.net
 Copyright © 2014 September 4, 2020 11:48 AM

JOB

TYPE

NOTES

| 6 |

**KIM LIGHTING**

Spun Copper Bullet C24

120 to 277 Volt Spun Copper LED

revision 11/7/14 • kl_c24led_spec.pdf

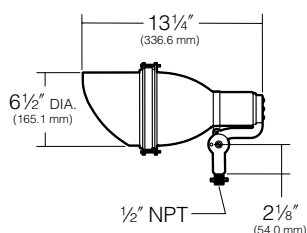
Type:
Job:
Mounting Options:**Approvals:****Fixture Catalog number:**

Fixture

 Ordered Separately from Fixture
 See pages 3-5

Date:
Page: 1 of 5

Specifications



Ordering Information

Fixture	Source
☐ C24S3/9L3KUV ¹	350mA, 11W, 9 LEDs, 3000K
☐ C24S3/9L4KUV ¹	350mA, 11W, 9 LEDs, 4200K
☐ C24S3/9L5KUV ¹	350mA, 11W, 9 LEDs, 5100K
☒ C24F3/9L3KUV ¹	350mA, 11W, 9 LEDs, 3000K
☐ C24F3/9L4KUV ¹	350mA, 11W, 9 LEDs, 4200K
☐ C24F3/9L5KUV ¹	350mA, 11W, 9 LEDs, 5100K

¹S = Spot, ¹F = Narrow Flood, ¹UV = Universal Voltage from 120 to 277V with a ±10% tolerance.

Housing and Shield: Spun copper with cast bronze clamping rings and swivel base.

Swivel: Cast bronze with set screw lock and 1/2" NPT plus solid brass locknut for mounting.

Optical System: High Performance acrylic lens optic securely attached to internal heat sink for maximum thermal dissipation.

Gasketing: Silicone gaskets throughout.

Fasteners: Brass and stainless steel.

Wiring: No. 18AWM rated 105°C.

Driver: Universal Voltage from 120 to 277V with a ±10% tolerance, -40°F. starting temperature. All drivers are Underwriters Laboratories recognized.

Finish: Natural copper and bronze. Will rapidly age to a deep rich bronze color, and may develop areas of patina.

Listed to: UL 1598 Standard for Luminaires - UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CAN/CSA C22.2 No. 250.0 -80 Luminaires, LEDs and drivers are RoHS compliant.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes, Failure to do so may result in serious personal injury.


HUBBELL LIGHTING, INC.



KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.



Spun Copper Bullet **C24**

120 to 277 Volt Spun Copper LED

revision 11/7/14 • kl_c24led_spec.pdf

Type:**Job:****Page: 2 of 5**

Lumen Data

Spectroradiometric

	3000K	4200K	5100K
Correlated Color Temp. CCT (K)	2800 to 3175K	3800 to 4600K	4600 to 5600K
Color Rendering Index (CRI)	≥80	≥75	≥65
Power Factor	>.90	>.90	>.90

Electrical Drive Current

Current	C24		
	Volts -AC	Amps - AC	System Watts
350mA	120	0.09	11
	208	0.06	11
	240	0.05	11
	277	0.04	11

Absolute Lumens

Current	C24		
	Temp.	Spot	Narrow Flood
350mA	3000K	991	625
	4200K	1287	812
	5100K	1442	909

Main Beam Candela and Beam Angle

Current	C24				
	Temp.	Spot	Beam°	Narrow Flood	Beam°
350mA	3000K	7486	15°	2170	30°
	4200K	9722	15°	2819	30°
	5100K	10893	15°	3159	30°

Projected Lumen Maintenance

mA	50,000 hrs	100,000 hrs
350	96.15%	93.48%

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.

**KIM LIGHTING**

Spun Copper Bullet C24

120 to 277 Volt Spun Copper LED

revision 11/7/14 • kl_c24led_spec.pdf

Type:**Job:****Page: 3 of 5**

Mounting Options

Ordered Separately from Fixture

Landscape Light Post by Engineered Products Co.

Cat. No.

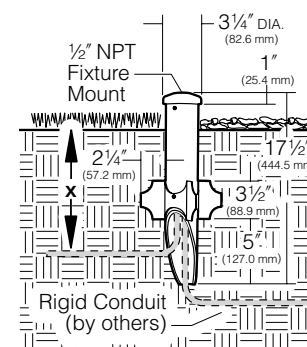
☐ **EP17**☐ **No Option**

PVC fixture molded in black with 1/2" NPT mount is corrosion free and UV resistant. Replaces EMT, conduit connectors and weatherproof boxes. 100% shatter resistant against denting and cracking. Angled bottom to eliminate cable congestion.

17 1/2" post length

NOTE: EP17 should be used with a UL listed fixture and grounding means (i.e., third wire) suitable for use in wet locations.

"X" = required depth of conduit per local codes.



Architectural Junction Box

Cat. No.

Finish

☐ **JB1/BL**

Black

☐ **JB1/DB**

Dark Bronze

☐ **JB1/GR**

Verde Green

☐ **No Option**

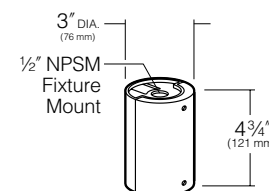
Die-cast aluminum with 1/2" NPSM fixture mount. Internal set screw provided for locking position. Two 1/2" NPSM in bottom, 17 cu in. internal volume. Super TGIC powder coat paint over clear anodizing and titanated zirconium conversion coating.

NOTE: May also be used to hard mount low voltage fixtures.

Application Notes

- Elevates Accent Lights above ground cover to prevent foliage from blocking the light.
- Elevates Path Lights above ground cover to achieve a greater light throw.

CAUTION: Junction box must be installed high enough to avoid contact with soil or standing water.



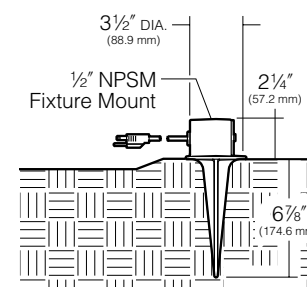
Portable Spear Mount

Cat. No.

☐ **J-25N**☐ **No Option**

Cast iron with 1/2" NPSM fixture mount. Hot dip galvanized finish. 5.5 cu in. splice compartment. (SJTW-A) 3 wire cord and plug.

9' cord length





Spun Copper Bullet C24

120 to 277 Volt Spun Copper LED

revision 11/7/14 • kl_c24led_spec.pdf

Type:**Job:****Page: 4 of 5**

Mounting Options

Ordered Separately from Fixture

Brass In-grade Architectural Junction Box

Cat. No.

- ☐ JBR-2
☐ JBR-3
☐ JBR-21
☐ JBR-24
☐ No Option

Die-cast brass with 1/2" NPSM fixture mount and die-cast cover. Internal set screw provided for locking position. 18 cu in. internal volume.

- JBR-2** (2) 1/2" NPT in bottom
JBR-3 (2) 3/4" NPT in bottom
JBR-21 (2) 1/2" NPT in sides, (2) 1/2" NPT in bottom
JBR-24 (4) 1/2" NPT in sides, (2) 1/2" NPT in bottom

All side taps provided with plugs.

NOTE: May also be used to hard mount low voltage fixtures.

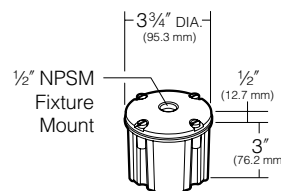
25 Year Limited Warranty:

Solid brass junction boxes are warranted for 25 years, from date of sale, against manufacturing defects and failure due to corrosion.

Application Notes

- Creates a flush-mounted appearance.
- May be cast in concrete for increased stability.

CAUTION: Fixture stem and swivel must not contact soil or standing water. Provide drainage away from junction box.



Brass In-grade Staked Junction Box

Cat. No.

- ☐ JBR30
☐ No Option

JBR30 BRASS IN-GRADE STAKED JUNCTION BOX

Die-cast brass with 1/2" NPSM fixture mount and die-cast cover. Internal set screw provided for locking position. 18 cu in. internal volume.

(2) 1/2" NPT in bottom with (2) 19" long brass stakes

NOTE: May also be used to hard mount low voltage fixtures.

Brass In-grade Staked Junction Box with Cord

Cat. No.

- ☐ JBR32
☐ No Option

JBR32 BRASS IN-GRADE STAKED JUNCTION BOX WITH CORD

Die-cast brass with 1/2" NPSM fixture mount and die-cast cover. Internal set screw provided for locking position. 18 cu in. internal volume. (SJTW-A) 3 wire cord and plug.

(2) 19" long brass stakes with 9' cord

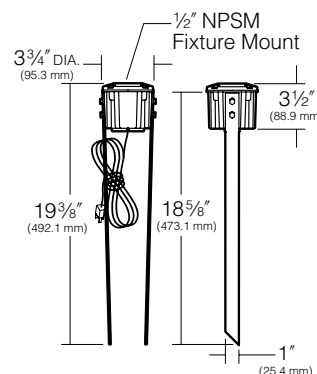
25 Year Limited Warranty:

Solid brass junction boxes are warranted for 25 years, from date of sale, against manufacturing defects and failure due to corrosion.

Application Notes

- Creates a flush-mounted appearance.
- May be cast in concrete for increased stability.

CAUTION: Fixture stem and swivel must not contact soil or standing water. Provide drainage away from junction box.



**KIM LIGHTING**

Spun Copper Bullet C24

120 to 277 Volt Spun Copper LED

revision 11/7/14 • kl_c24led_spec.pdf

Type:**Job:****Page: 5 of 5**

Mounting Options

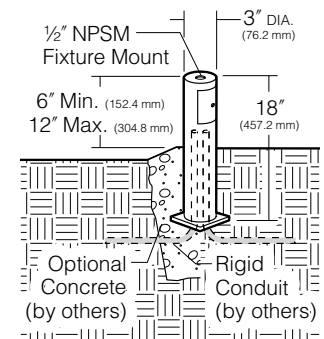
Ordered Separately from Fixture

Stanchion Mount

- Cat. No. Finish
- ☐ **SM18/BL** Black
- ☐ **SM18/DB** Dark Bronze
- ☐ **SM18/GR** Verde
- Green
- ☐ **No Option**

3" O.D. by .188" wall cast aluminum with 1/2" NPSM fixture mount and hand hole with flush cover. Internal set screw fixture lock accessible through hand hole. Internal ground lug supplied with installed lead. Super TGIC powder coat paint over clear anodizing and titanated zirconium conversion coating.

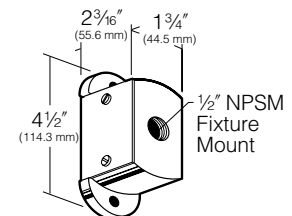
NOTE: May also be used to hard mount low voltage fixtures.

**Surface Mount**

- Cat. No. Finish
- ☐ **J-27N/BL** Black
- ☐ **J-27N/DB** Dark Bronze
- ☐ **J-27N/GR** Verde
- Green
- ☐ **No Option**

Cast aluminum with 1/2" NPSM fixture mount. Internal set screw provided for locking position. 5 cu in. internal volume. Super TGIC powder coat paint over clear anodizing and titanated zirconium conversion coating.

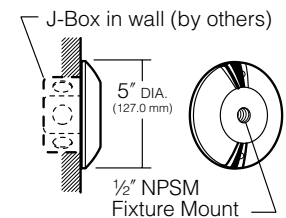
NOTE: May also be used to hard mount low voltage fixtures.

**Brass Architectural Wall Mount**

- Cat. No. Finish
- ☐ **JWBR/NB** Natural Brass
- ☐ **JWBR/VG** Verde Green Patina
- ☐ **No Option**

Die-cast brass with 1/2" NPSM fixture mount. Internal set screw provided for locking position. Canopy attaches to stainless steel wall plate for mounting to any standard electrical outlet box.

NOTE: May also be used to hard mount low voltage fixtures.



Submitted by Swaney Lighting		Catalog Number:	Type:
	Job Name: MERCY HOSPITAL SITE LIGHTING	C24F3/9L3KUV Notes:	TL SLA20-47120

This page intentionally left blank for printing purposes



Wall, Step, Path Light **EL807**

120 / 277 Volt Die-Cast Aluminum LED

kl_el807_spec.pdf

Type:**Job:****Fixture Catalog number:**

 Fixture Mode Finish
Approvals:
Date:
Page: 1 of 2

Specifications

Housing: Die-cast low copper alloy (<0.6% Cu) aluminum with clear anodized finish. Two 1/2" NPT in sides. Housing mounts into concrete, brick, or masonry (non-combustible materials). Internal splice area provided behind lamp plate.

Lens Frame: Die-cast aluminum, with silicone gasket, attaches to housing with two captive 10-32 stainless steel, hex socket cap screws.

Lens: Tempered prismatic glass with silicone gasket, concealed above lens frame opening.

Finish: On lens frame only, each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors are Black (**BL**), Dark Bronze (**DB**), and Verde Green (**GR**).

Optical System: A total of 3 or 9 LED emitters are configured together as a module. Available in 3000K, 4200K, and 5100K.

Driver: Universal Voltage from 120 to 277V with a ±10% tolerance. -40° F. starting temperature. All drivers are Underwriters Laboratories recognized.

ORDERING INFORMATION

Fixture	Source
☐ EL807 / 3L3KUV¹	3.6W, 3 LED's, 3000K
☐ EL807 / 3L4KUV¹	3.6W, 3 LED's, 4200K
☐ EL807 / 3L5KUV¹	3.6W, 3 LED's, 5100K

Fixture	Source
☒ EL807 / 9L3KUV¹	10.8W, 9 LED's, 3000K
☐ EL807 / 9L4KUV¹	10.8W, 9 LED's, 4200K
☐ EL807 / 9L5KUV¹	10.8W, 9 LED's, 5100K

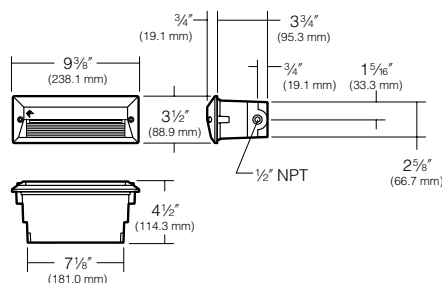
¹ Universal Voltage from 120 to 277V with a ±10% tolerance.

For 5.3W, Max Amps. are .13 for 120V, .080 for 208V, .080 for 240V, .060 for 277V. For 10.8W, Max Amps. are .090 for 120V, .050 for 208V, .040 for 240V, .040 for 277V..

Finish

- ☐ **BL** - Black
☐ **DB** - Dark Bronze
☐ **GR** - Verde Green

Specify Std. finish



Kim Lighting reserves the right to change specifications without notice.

© 2021 KIM LIGHTING | 17760 Rowland Street | City of Industry | CA 91748
 P 626.968.5666 | F 626.369.2695 | www.kimlighting.com |
 January 8, 2021 7:47 AM

Listings and Ratings

UL cUL 1598¹ | 25C Ambient

¹Suitable for wet locations





Wall, Step, Path Light **EL807**

120 / 277 Volt Die-Cast Aluminum LED

revision 2/11/15 • kl_el807_spec.pdf

Type:**Job:****Page: 2 of 2**

Lumen Data

Spectroradiometric

	3000K	4200K	5100K
Correlated Color Temp. CCT (K)	2800 to 3175K	3800 to 4600K	4600 to 5600K
Color Rendering Index (CRI)	≥75	≥70	≥65

ELECTRICAL - Drive Current @350mA (3 LEDs)

Volts -AC	Amps - AC	System Watts
120	0.13	5.3
208	0.08	5.3
240	0.08	5.3
277	0.06	5.3

ELECTRICAL - Drive Current @350mA (9 LEDs)

Volts -AC	Amps - AC	System Watts
120	0.09	10.5
208	0.05	10.5
240	0.04	10.5
277	0.04	10.5

Absolute Lumens (3 LEDs)

Temperature	EL807/3L*K
3000K	61
4200K	71
5100K	78

Absolute Lumens (9 LEDs)

Temperature	EL807/9L*K
3000K	167
4200K	188
5100K	211

Lumens Per Watt (3 LEDs)

Temperature	EL807/3L*K
3000K	11.5
4200K	13.4
5100K	14.7

Lumens Per Watt (9 LEDs)

Temperature	EL807/9L*K
3000K	15.9
4200K	17.9
5100K	20.1

Kim Lighting reserves the right to change specifications without notice.

KIMLIGHTING®

WDS
WALL MOUNTED

FEATURES

- -5° to +10° tilt adjustment
- High performance optics deliver up to 7,500 lumens
- up or down mountable without modification
- Programmable occupancy sensor (dimming)
- NX and SiteSync wireless controls
- 130+ lumens per watt
- UL/cUL listed for wet locations, IP66 Listed



CONTROL TECHNOLOGY

NX DISTRIBUTED INTELLIGENCE™

SPECIFICATIONS

CONSTRUCTION

- Optical housing is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral heat sink. The housing rotates against mounting arm housing to provide -5° to 10° of adjustment with degree markers label. At 0° adjustment, lens is totally concealed from view above horizontal with fixture mounted in the downward position.
- Mounting arm housing is one-piece die-cast, low copper (<0.6%) aluminum alloy with provisions for tilt mechanism. Mounting arm fastens to the mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on the tilt mechanism frees the optical housing to rotate for aiming. Tightening the screws locks the housing and lens frame together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.
- Lens Frame is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral cooling fins to dissipate driver thermal.
- Bracketry and hardware shall be stainless steel.
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat

OPTICS

- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
- Secondary lens is impact resistant 1/8" tempered glass with anti-reflective coating.

INSTALLATION

- Junction box (by others): Standard with steel, quick-mount junction box plate that mounts directly to 4" J-Box.
- Mounting plate is stainless steel and features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

SERVICING

- Housing should hang freely in an open service position for inspection of primary wire connections. Once in service position, the housing can be removed for service by sliding the assembly to the left (for down mounting) or to the right (for up mounting) and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

Wall Director Small

RELATED PRODUCTS

[Wall Director Medium](#)

ELECTRICAL

- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C
- Modular wiring harness in the service area provides user access to the dimming circuitry
- Optional factory programmed dimming profile
- Surge protection: 10,000k in parallel, 20,000k in series
- Wiring: No. 18AWM rated 90°C, wet rating.

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2,855–8,567
Wattage Range	29–74
Efficacy Range (LPW)	89–129
Reported Life (Hours)	L70/60,000
Weight	20 lbs/9.07 kg

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: WDS/D/24L-30/3K7/3/UNV/**	Type: W1
		Notes: SPECIFY FINISH	SLA20-47120



WDS
WALL MOUNTED

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: WDS-D-24L-30-3K7-1-UNV-BLS-PC-EM-SWUSB

CATALOG #

HOUSING

WDS					
Model	Mounting	Source	Wattage	Light Engine	Distribution
WDS WallDirector Small	D Down	24L 24 LEDs	30 30 Watts, 3000 lm	AM ⁶ Amber-595nm Peak	1 Type I
	U ¹ Up		40 40 Watts, 4500 lm	3K7 3000K/70CRI	2 Type II
			60 60 Watts, 6000 lm	3K8 3000K/80CRI	3 Type III
			75 75 Watts, 7500 lm	4K7 4000K/70CRI	4W Type IV Wide
				4K8 4000K/80CRI	4F Type IV Forward
				5K7 5000K/70CRI	WG ² Wall Graze
					SP Spot/Column
					FTD ² Forward Throw Diffuse
					WTD ² Wide Throw Diffuse

Specify Std. finish					
Voltage	Fixture Finish	Control Options	Options	Control Accessories	
UNV 120-277V	BLS Black Gloss Smooth	PC ³ Button Photocell	EM ³ Integral Battery Backup Unit (8W)	SCPREMOTE	SCP configuration tool
347 ^{3, 10} 347V	BLT Black Matte Textured	SCP-8F ^{3, 4, 5, 9} Programmable Occ. Sensor (<9' height)	SF Single Fuse & Fuse holder	SWUSB	SiteSync Software on USB
480 ^{3, 10} 480V	DBS Dark Bronze Gloss Smooth	SCP-20F ^{3, 4, 5, 9} Programmable Occ. Sensor (9' - 20' height)	DF Double Fuse & Fuse holder	SWTAB	SiteSync Windows [®] Tablet
	DBT Dark Bronze Matte Textured	SWP ^{3, 4, 5, 7} SiteSync Wireless Pre-Commission	SCM1 1/2" Surface Conduit Mount	SWBRG	SiteSync Software Bridge Node
	GTT Graphite Matte Textured	NXWE ^{4, 5} NX Wireless Enabled	SCM2 3/4" Surface Conduit Mount		
	LGS Light Grey Gloss Smooth				
	LGT Light Grey Matte Textured				
	PSS Platinum Silver Gloss Smooth				
	VGT Verde Green Matte Textured				
	WHS White Gloss Smooth				
	WHT White Matte Textured				
	Color Option				
	CC ⁸ Custom Color				

Notes:

- Not available with EM option or with SCP,SWPM, NXSPW14 and NXSP14F sensor options.
- WG, FTD, and WTD come with a diffused lens
- Not available with other control options
- Input voltage 120-347V
- Not available in 480V
- Turtle friendly
- Specify group and zone at time of order. See www.hubbellighting.com/sitesync for more details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
- Consult factory for custom color, marine and corrosive finish options
- SCPREMOTE SCP configuration tool needed.
- Not available with 30 watt or 40 watts

Microsoft, Encarta, MSN, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

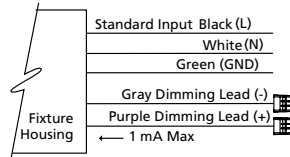


KIMLIGHTING®

SPECIFICATIONS (CONT')

DIMMING:

- Dimming range from 100% to 10% through the use of the standard 0-10V interface on the programmable driver.



- Modular wiring harness in the service area provides user access to the dimming circuitry.
- Dimming circuitry compatible with 0-10V, user-defined control devices.
- Optional factory programmed dimming profile.

BUTTON PHOTOCELL

- Optional universal voltage (120-277V) button photocontrol for dusk to dawn energy savings. Photocontrol is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.

WIRELESS CONTROLS SITESYNC™1

- SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbellighting.com/products/sitesync for more details.

NX DISTRIBUTED INTELLIGENCE™

- Hubbell Control Solutions' NX Distributed Intelligence™ lighting control platform utilizes a Distributed Network Architecture (DNA) that connects intelligent devices including luminaires, controllers, panels, occupancy sensors, photocells, wall switches and dimmers, creating a system with an unmatched level of reliability, scalability and simplicity

OPTIONAL FUSING:

- SF for 120, 277, and 347 Line volts
- DF for 208, 240, and 480 Line volts
- High temperature fuse holders factory installed inside the fixture housing.
- Fuse is included.

OPTIONAL BACKUP BATTERY

- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for 0°C ambient.

CAUTION:

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

CERTIFICATIONS AND LISTINGS

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- IEC 66262 Mechanical Impact Code IK08
- IP66 certified
- RoHS compliant
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/16/2020. [See Buy American Solutions.](#)

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information
- *PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.HubbellLighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928
- Examples:
WDS-D-48L-55-3K7-1-UNV-BLS-PC-SF

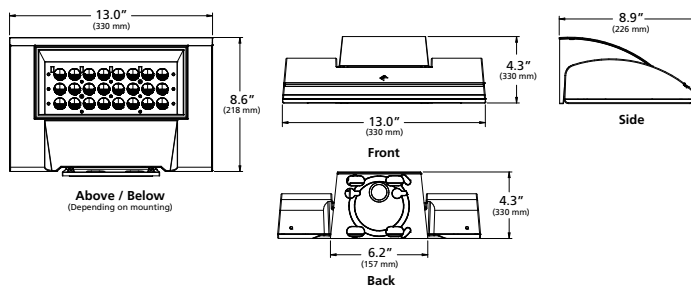
Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: WDS/D/24L-30/3K7/3/UNV/**	Type: W1
		Notes: SPECIFY FINISH	SLA20-47120

KIMLIGHTING

WDS
WALL MOUNTED

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS



Weight: 20 lbs

DELIVERED LUMENS

LEDs #	Drive Current	Lumens Package	Nominal Watts	Lens Options	Distribution	3000K 70CRI				4000K 70CRI				5000K 70CRI						
						Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
							B	U	G			B	U	G			B	U	G	
24L	350mA	3,000	30	Clear	1	3433	1	0	0	119	3519	1	0	0	122	3560	1	0	0	123
					2	3351	1	0	1	116	3436	1	0	1	119	3475	1	0	1	120
					3	3340	1	0	1	116	3424	1	0	1	119	3463	1	0	1	120
					4F	3343	1	0	1	116	3427	1	0	1	119	3466	1	0	1	120
					4W	3267	1	0	1	113	3349	1	0	1	116	3387	1	0	1	117
					SP	3600	3	0	0	125	3691	3	0	0	128	3733	3	0	0	129
				Diffused	WG	3144	1	0	1	109	3223	2	0	1	112	3260	2	0	1	113
					FTD	2855	1	0	1	99	2927	1	0	1	101	2960	1	0	1	103
					WTD	3151	1	0	1	109	3230	1	0	1	112	3267	1	0	1	113
	500mA	4,500	40	Clear	1	4593	1	0	0	111	4708	1	0	0	113	4762	1	0	0	115
					2	4484	1	0	1	108	4596	1	0	1	111	4649	1	0	1	112
					3	4468	1	0	1	108	4581	1	0	1	110	4633	1	0	1	112
					4F	4472	1	0	1	108	4585	1	0	1	110	4637	1	0	1	112
					4W	4370	1	0	2	105	4480	1	0	2	108	4531	1	0	2	109
					SP	4817	3	0	0	116	4938	3	0	0	119	4994	3	0	0	120
				Diffused	WG	4206	2	0	1	101	4312	2	0	1	104	4361	2	0	1	105
					FTD	3819	1	0	1	92	3915	1	0	1	94	3960	1	0	1	95
					WTD	4215	1	0	1	102	4321	1	0	1	104	4371	1	0	1	105


WDS

WALL MOUNTED

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

DELIVERED LUMENS (CONTINUED)

LEDs #	Drive Current	Lumens Package	Nominal Watts	Lens Options	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
						Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
							B	U	G			B	U	G			B	U	G	
24L	725mA	6,000	60	Clear	1	6333	1	0	1	108	6492	1	0	1	111	6566	1	0	1	112
					2	6182	1	0	1	106	6338	1	0	1	108	6410	1	0	1	110
					3	6161	1	0	2	105	6316	1	0	2	108	6388	1	0	2	109
					4F	6166	1	0	2	105	6321	1	0	2	108	6393	1	0	2	109
					4W	6025	1	0	2	103	6177	1	0	2	106	6248	1	0	2	107
					SP	6641	4	0	0	114	6808	4	0	0	116	6886	4	0	0	118
				Diffused	WG	5800	2	0	1	99	5945	2	0	1	102	6013	2	0	1	103
					FTD	5266	1	0	1	90	5398	2	0	1	92	5460	2	0	1	93
					WTD	5812	1	0	1	99	5958	1	0	1	102	6026	1	0	1	103
	925mA	7,500	75	Clear	1	7879	1	0	1	106	8077	1	0	1	109	8170	1	0	1	110
					2	7692	1	0	1	104	7885	1	0	1	107	7975	1	0	2	108
					3	7665	1	0	2	104	7858	1	0	2	106	7948	1	0	2	107
					4F	7672	1	0	2	104	7865	1	0	2	106	7955	1	0	2	107
					4W	7497	1	0	2	101	7685	1	0	2	104	7773	1	0	2	105
					SP	8263	4	0	0	112	8471	4	0	0	114	8567	4	0	0	116
				Diffused	WG	7216	3	0	1	98	7397	3	0	1	100	7482	3	0	1	101
					FTD	6552	2	0	1	89	6717	2	0	1	91	6793	2	0	2	92
					WTD	7231	2	0	1	98	7413	2	0	1	100	7498	2	0	1	101



WDS

WALL MOUNTED

PHOTOMETRY

WDS-D-24L-75-4K7-1

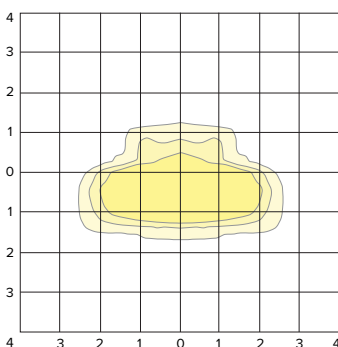
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8077
Watts	74
Efficacy	109.1
IES Type	I
BUG Rating	B1-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7166	88.7%
Downward House Side	912	11.3%
Downward Total	8077	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8077	100%

ISOFOOT CANDLE PLOT



WDS-D-24L-75-4K7-2

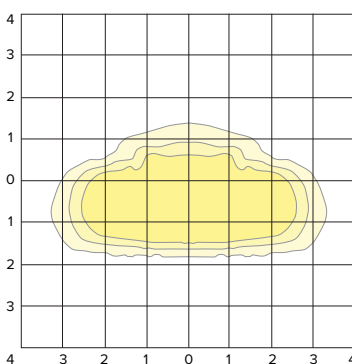
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	7885
Watts	74
Efficacy	106.6
IES Type	II
BUG Rating	B1-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6393	81.1%
Downward House Side	1492	18.9%
Downward Total	7885	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7885	100%

ISOFOOT CANDLE PLOT



WDS-D-24L-75-4K7-3

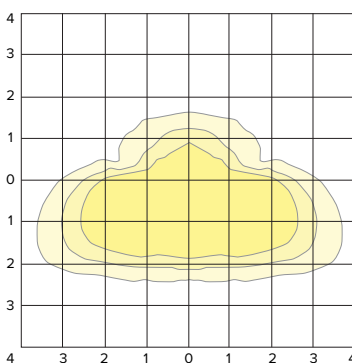
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	7858
Watts	74
Efficacy	106.2
IES Type	III
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6551	83.4%
Downward House Side	1307	16.6%
Downward Total	7858	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7858	100%

ISOFOOT CANDLE PLOT





WDS

WALL MOUNTED

PHOTOMETRY

WDS-D-24L-75-4K7-4F

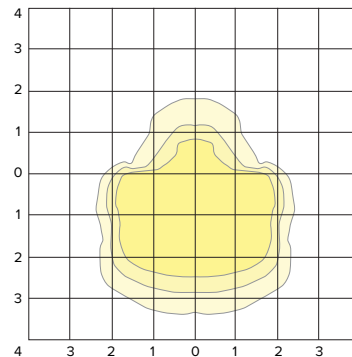
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	7865
Watts	74
Efficacy	106.3
IES Type	III
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6782	86.2%
Downward House Side	1083	13.8%
Downward Total	7865	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7865	100%

ISOFOOT CANDLE PLOT



WDS-D-24L-75-4K7-4W

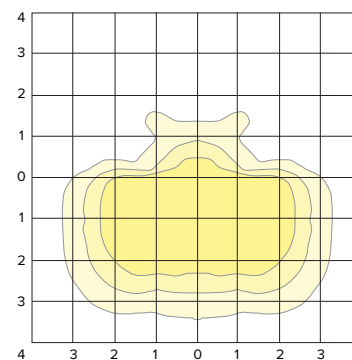
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	7685
Watts	74
Efficacy	103.9
IES Type	III
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6794	88.4%
Downward House Side	892	11.6%
Downward Total	7685	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7685	100%

ISOFOOT CANDLE PLOT



WDS-D-24L-75-4K7-FTD

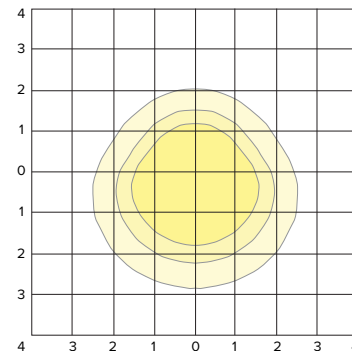
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	6717
Watts	74
Efficacy	90.8
IES Type	III
BUG Rating	B2-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4462	66.4%
Downward House Side	2255	33.6%
Downward Total	6717	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	6717	100%

ISOFOOT CANDLE PLOT





WDS

WALL MOUNTED

PHOTOMETRY

WDS-D-24L-75-4K7-SP

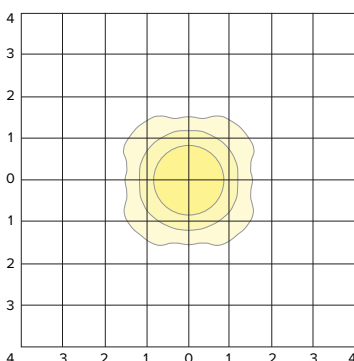
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8471
Watts	74
Efficacy	114.5
IES Type	VS
BUG Rating	B4-U0-G0
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4236	50.0%
Downward House Side	4236	50.0%
Downward Total	8471	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8471	100%

ISOFOOT CANDLE PLOT



WDS-D-24L-75-4K7-WG

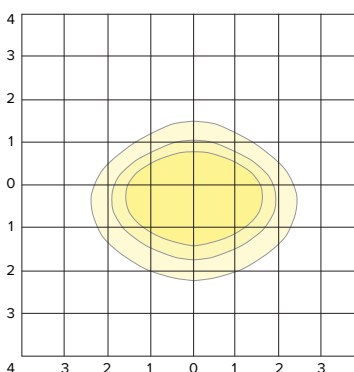
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	7396
Watts	74
Efficacy	99.9
IES Type	I
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4931	66.7%
Downward House Side	2465	33.3%
Downward Total	7396	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7396	100%

ISOFOOT CANDLE PLOT



WDS-D-24L-75-4K7-WTD

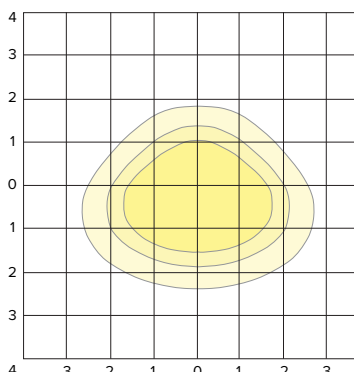
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	7413
Watts	74
Efficacy	100.2
IES Type	I
BUG Rating	B2-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5341	72.1%
Downward House Side	2072	27.9%
Downward Total	7413	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	7413	100%

ISOFOOT CANDLE PLOT



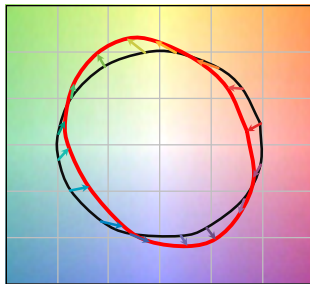
**KIMLIGHTING****WDS**

WALL MOUNTED

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

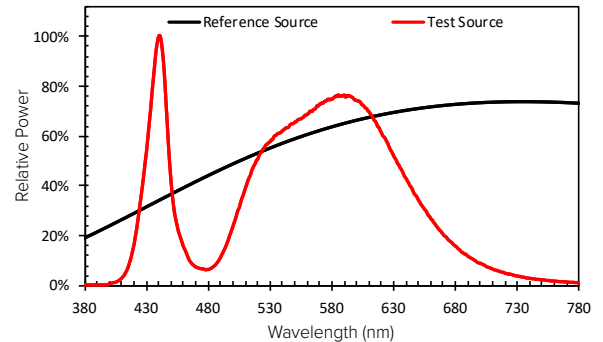
CATALOG #: _____

TM-30 DATA**COLOR VECTOR GRAPHIC**

— Reference Illuminant — Test Source

TEST SOURCE

R _f	68
R _g	99
CCT(K)	3947
D _{uv}	0.0004
x	0.3831
y	0.3793
CIE R _a	72

SPECTRAL POWER DISTRIBUTION COMPARISON**ELECTRICAL DATA**

Drive Current	System Watts	Line Voltage		Amps AC						Min. Power Factor	Max THD (%)	Dimming Range	Dimming			
		VAC	Hz	120	208	240	277	347	480				Source current out of 0-10V		Absolute voltage range on 0-10V (+)	
													Min	Max	Min	Max
350mA	29	120-480	50/60	0.24	0.14	0.12	0.10	0.08	0.06	>0.9	20	10% to 100%	0mA	1mA	0V	10V
500mA	42			0.38	0.22	0.19	0.16	0.13	0.09							
725mA	59			0.48	0.27	0.24	0.21	0.16	0.12							
925mA	74			0.67	0.39	0.34	0.29	0.23	0.17							

TM-21 Lifetime Calculation - Projected Lumen Maintenance (25°C / 77°C)

Ambient Temp.	0	25,000	36,000	50,000	100,000	Reported L70
25°C / 77°F	100%	97%	95%	93%	86%	60khrs
40°C / 104°F	100%	92%	89%	86%	75%	

CRI Lumen Multiplier

CCT	70 CRI	80 CRI	90 CRI
3000K	1	0.9119	0.7033
4000K	1	0.8941	0.734
5000K	1	0.879	0.7712

Amber Multiplier

CCT	Multiplier
5000K	1
AM	0.1727

2700K Multiplier

CCT	Multiplier
5000K	1
2700K	0.897

Submitted by Swaney Lighting		Catalog Number: WDS/D/24L-30/3K7/3/UNV/**	Type: W1
	Job Name: MERCY HOSPITAL SITE LIGHTING	Notes: SPECIFY FINISH	SLA20-47120

This page intentionally left blank for printing purposes

**PGF1****High Performance LED Sconce****FEATURES****Application**

The PGF1 is a maintenance-free indoor/outdoor die-cast architectural LED Sconce. It is wet location listed and offers pathway, perimeter or entry lighting at a mounting height of 8 to 10 feet.

Construction

Housing and mounting plate are constructed of 0.125" die-cast aluminum and the housing is fully gasketed. Lens is acrylic with 95% light transmission to reduce glare. The reflector is electro-polished aluminum with 95% reflectance. Housing is powder coated electro-deposition paint available in 2 colors. The PGF1 includes a field installable full cut-off shield to address "dark sky" compliant requirements. An optional 120VAC photo-control is also available.

Installation

Universal backplate knockouts for mounting to standard 3 1/2", 4" octagonal and 4" square electrical boxes. Backplate mounting is performed using installer supplied hardware. An adhesive-backed neoprene gasket is provided to ensure a waterproof seal. A 1/2" - 1/4 NPT threaded conduit opening is provided at the top of the enclosure and sealed with a closure plug. The housing "snaps" to the back plate by a "pin and socket" arrangement, and is secured with two Phillips head screws.

Electronics

Number of Lamps: 7 High Output LED's
 Lamp Type: Solid State High Output LED's
 Lamp Color: Cool White, 4300K
 Total Lamp Output: 1067 Lumens
 Lumen Maintenance: 50,000 hours
 LED Light Engine: Constant current Driver meets UL1310 class 2 for SSL and FCC Class B, rated for 50,000 hours
 Voltage Input: 120 to 277VAC, 60 Hz.
 Input Power Requirements: 17.7 watts
 Fixture Efficacy: 60.3 Lumens per Watt

Compliances

CSA Certified to UL1598 for use in Wet locations
 Patent No. D627,916

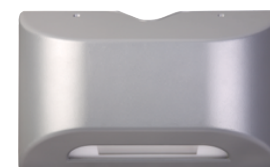
Warranty

3 Years Full

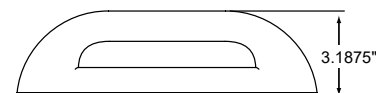
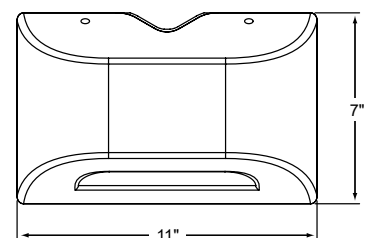
Catalog Number	
Comments	Type



Dark Bronze



Platinum Silver

DIMENSIONS**ORDERING GUIDE****PGF1**

Model	Finish	Options
PGF1	Z Dark Bronze P Platinum Silver	PC1 120VAC Photo-control
	Specify Stnd. finish	

Dual-Lite • www.dual-lite.com

A Hubbell Lighting, Inc. brand with representatives' offices in principal cities throughout North America.

Copyright © Hubbell Lighting Inc., All Rights Reserved • Specifications subject to change without notice. • Printed in U.S.A.



HUBBELL
 Lighting

0603514 B 01/19

Submitted by Swaney Lighting		Catalog Number: PGF1*	Type: W2
	Job Name: MERCY HOSPITAL SITE LIGHTING	Notes: SPECIFY FINISH	SLA20-47120

This page intentionally left blank for printing purposes



.hess

VAREDO 410 Specification

The VAREDO catenary suspended luminaire expands design possibilities for architectural settings where installation of poles is not possible or desired. The softly contoured cast aluminum luminaire features a low profile, allowing it to blend into the surrounding architecture. Frameless tempered glass lens with single quarter turn fastener allows tool-less access to the optical compartment. The LED source is fully shielded and emits zero uplight. It is suitable for all LEED lighting zones and is Dark Sky compliant. Complementary pole mounted luminaires in two mounting configurations add flexibility and design continuity when combined with catenary suspended luminaires for a complete site lighting solution. Structural design, stainless steel catenary cable, and fittings for mounting to support structures are provided by others. All hardware is stainless steel.



Model	LED Module	Color Temperature	Distribution	Volt	Mounting	Specify Std. finish	
						Finish	Option
VR410	2LVC - 2 modules WW - 3000K	T5 - Type V		UNV - 120-277V	X - Catenary	SG - Silver Grey	DIM - 0-10VDC Dimming
	3LVC - 3 modules NW - 4000K					DG - Dark Grey	XC - Additional Power Cable
						GG - Graphite Grey	N - None
						BLK - Matte Black	
						BRZ - Dark Bronze	
						CC - Custom RAL Color	

Ordering Information

VR410 T5 UNV X

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Catenary Suspended Luminaires > VAREDO
https://www.hessamerica.com/Products/Lighting/Catenary_Suspended_Luminaires/VAREDO_/

Page 1

Submitted by Swaney Lighting	 Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: VR410-2LVC-2-WW-T5-UNV-X-**-DIM Notes: SPECIFY FINISH	Type: VR SLA20-47120
------------------------------	--	--	--

.hess

VAREDO 410 Specification

HOUSING

Luminaire housing is cast aluminum. Frameless tempered glass lens is hinged and secured with single stainless steel quarter-turn fastener for tool-less access to the optical compartment. Lens seals to the housing with one-piece silicone gasketing when closed. Housing is fitted with stainless steel weather-tight strain relief bushing for the power cable exiting the rear of the housing. All hardware is stainless steel.

OPTICS

Optics include choice of two or three LED modules. Each module consists of a field replaceable aluminum core PCB with four high-power LEDs and a single piece lens molded from optical quality acrylic. Light distribution is Type V. Contact factory of asymmetric distributions. Luminaire emits zero uplight at 90 degrees horizontal and above and is suitable for use in all LEED lighting zones.

LED DELIVERED LUMEN OUTPUT / BUG RATING

2 Modules: 72 watts

Type V - 3000K: 5046 lumens / B2-U0-G1

Type V - 4000K: 5374 lumens / B3-U0-G1

3 Modules: 108 watts

Type V - 3000K: 7568 lumens / B3-U0-G1

Type V - 4000K: 8060 lumens / B3-U0-G1

NOTE: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of HessAmerica. Consult factory for current technical data.

ELECTRICAL

Electronic LED driver supplies 700mA drive current to LED modules with input voltage range from 120v through 277v at 50/60Hz. Optional 0-10v DC dimming is available on request.

WEIGHT: 40 lbs

EPA: 1.1 SQ FT

MOUNTING

Cable hanger assembly consists of two stainless steel clamps with vertical adjustment capability to mount and level the luminaire. Clamp positions permit parallel or perpendicular alignment of connecting rods to the catenary cable. (Structural design, stainless steel catenary cable, cable fittings, and fittings for mounting to support structure provided by others.) Luminaire installs onto 1/4" through 1/2" diameter cable.

FINISH

Standard finishes are finely textured matte silver grey metallic, dark grey, graphite grey, matte black, or dark bronze. Special colors available on request.

WARRANTY

Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Catenary Suspended Luminaires > VAREDO
https://www.hessamerica.com/Products/Lighting/Catenary_Suspended_Luminaires/VAREDO_/

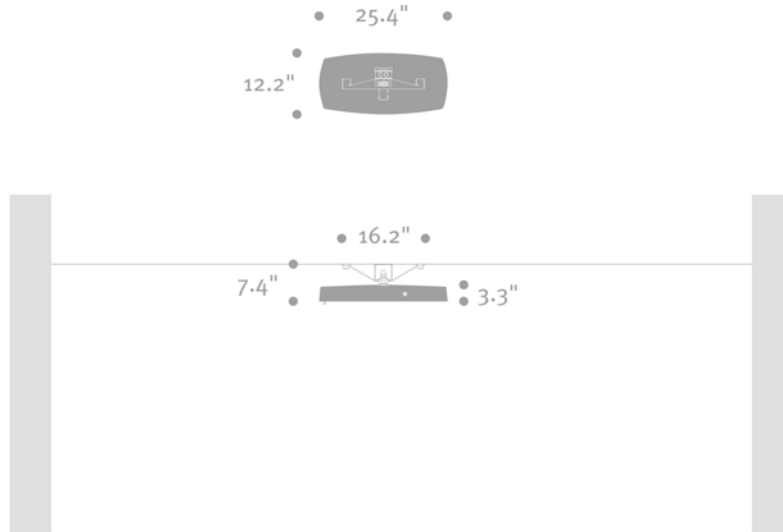
Page 2



.hess

Additional information

Dimensions



Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Catenary Suspended Luminaires > VAREDO
https://www.hessamerica.com/Products/Lighting/Catenary_Suspended_Luminaires/VAREDO_/

Page 3

Submitted by Swaney Lighting		Catalog Number:	Type:
	Job Name: MERCY HOSPITAL SITE LIGHTING	VR410-2LVC-2-WW-T5-UNV-X-**-DIM Notes: SPECIFY FINISH	VR SLA20-47120

This page intentionally left blank for printing purposes


HUBBELL
 Control Solutions

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

CX LIGHTING CONTROL PANELS

CX COMMERCIAL LIGHTING CONTROL PANELS

FEATURES

- LCD user interface with keypad
- 4, 8, 16 and 24 relay panel sizes
- Fully populated or empty
- Astronomical and real time clock for scheduling
- Upload or save programming via removable SD memory card
- NEMA 1 surface mount Enclosure
- UL916, UL924 and cUL listed
- 5 year limited warranty



RELATED PRODUCTS

[CX Relays](#)
[CX Dimming Option Card](#)
[CX Programmable Switches](#)
[CX Low Voltage Switches](#)
[Low Voltage Heavy Duty Key Switch](#)


SPECIFICATIONS

CONSTRUCTION

- Keypad user interface mounted on exterior of door (Only on Master or Stand alone versions)
- Knockouts on top and bottom for low voltage and line voltage feeds
- NEMA 1 surface mount enclosure;
- Pre-drilled mounting holes for mounting to wall
- Panels have hinged locking door

INSTALLATION

- All CX panel versions are surface mount enclosures

ELECTRICAL

- CX04 and CX08; 120/277VAC or 120/347VAC
- CX16 and CX24; 120-277VAC or 347-480VAC
- CX04/CX08; 24VDC, 150mA (max. 300mA)
- CX16/CX24; 24VDC, 150mA (max. 900mA)

ELECTRICAL CONTINUED

- CXR2N 120/277VAC (50/60Hz)
- CXR3L 120/277/347VAC (50/60Hz)
- CXR3LEM 120/277/347VAC (50/60Hz)
- CXRTN 208/240/480VAC (50/60Hz)
- CXRTC 208/240/480VAC (50/60Hz)
- Wire size 14, 16, 18, 20, 22 AWG
- Recommended Tightening Torque: 0.45 N-m (4 in-lbs.)
- 500A @ 2ms (CXR3LEM only)

OPERATION

- Green indicator light on panel motherboard - indicates panel is receiving power.
- Green indicator light on the relay card - Indicates relay is in the closed position
- Red indicator light on the relay card - Dependent on input status and programming
- Indoor use only

OPERATION CONTINUED

- 32° - 112° (0° - 50°C)
- Relative humidity (non-condensing): 10% - 90%

CERTIFICATIONS

- UL916, CAN/CSA C22.2 No. 205
- UL924, CAN/CSA C22.2 No. 141 Emergency Lighting (CXR3LEM)
- Title 24 Certified
- This product qualifies as "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 5/27/2020. See [Buy American Solutions](#).

WARRANTY

- 5 year limited
- See [HCS Standard Warranty](#) for additional information


HUBBELL
 Lighting

Submitted by Swaney Lighting	Job Name: MERCY HOSPITAL SITE LIGHTING	Catalog Number: CX162S162NM	Type: LCP
		Notes:	SLA20-47120



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

CX LIGHTING CONTROL PANELS

CX COMMERCIAL LIGHTING CONTROL PANELS

ORDERING GUIDE

Example: CX042S00SPN or CX082S083LM

CATALOG #

CX			S				
Model	Spaces	Input Voltage	Enclosure	Relay Quantity	Relay Type	Options	TAA
CX CX Lighting Control Panel	04 4 Relay Spaces (Stand Alone version only) 08 8 Relay Spaces	2 120/277VAC 3 120/347VAC	S NEMA 1 Enclosure	00 No relays included (Required SP Relay Type) 04 4 Relays Installed (Fully Populated) 08 8 Relays Installed (Fully Populated)	SP CX Lighting Control Panel 2N 1-Pole Elect. Held N.O. Relays (CXR2N) 3L 1-Pole Latching Relays (CXR3L) TN 2-Pole Elect. Held N.O. Relays (CXRTN)	N Stand-alone (4 Relay Panel is neither a Master or Secondary Panel) M Master (Available in CX08) S Secondary (Available in CX08)	Blank Standard Product T TAA

Example: CX162S00SPM or CX242S243LM

CATALOG #

CX			S				
Model	Spaces	Input Voltage	Enclosure	Relay Quantity	Relay Type	Options	TAA
CX CX Lighting Control Panel	16 16 Relay Spaces 24 24 Relay Spaces	2 120-277VAC 3 347-480VAC	S NEMA 1 Enclosure	00 No relays included (Required SP Relay Type) 16 16 Relays Installed (Fully Populated) 24 24 Relays Installed (Fully Populated)	SP CX Lighting Control Panel 2N 1-Pole Elect. Held N.O. Relays (CXR2N) 3L 1-Pole Latching Relays (CXR3L) TN 2-Pole Elect. Held N.O. Relays (CXRTN)	M Master (Available in CX16 or CX24) S Secondary (Available in CX16 or CX24)	Blank Standard Product T TAA

Notes:

- 2-Pole relays take the same amount of space as 1-Pole relays.
- Installed relays must be all of the same type. Relay Type CXR3LEM* and CXRTC* are not available in fully populate panels and must be ordered separately to be installed in the field.
- "00" option has no relays, any purchase relays must be installed in the field.
- Secondary panels have a pre-installed Secondary Interface Card and separately packaged Master Interface Card. Join panels with a Cat5e/6 cable, T568B wiring scheme (Not to exceed 750').
- CX04 Relay panel is Stand Alone only. Does not function with Master/Satellite Interface cards.

*Buy American Solutions
TAA FAR \$52,225-11
CX042S043LM
CX082S083LM
CX083S083LM
CX162S163LM
CX242S243LM



DATE: _____ LOCATION: _____

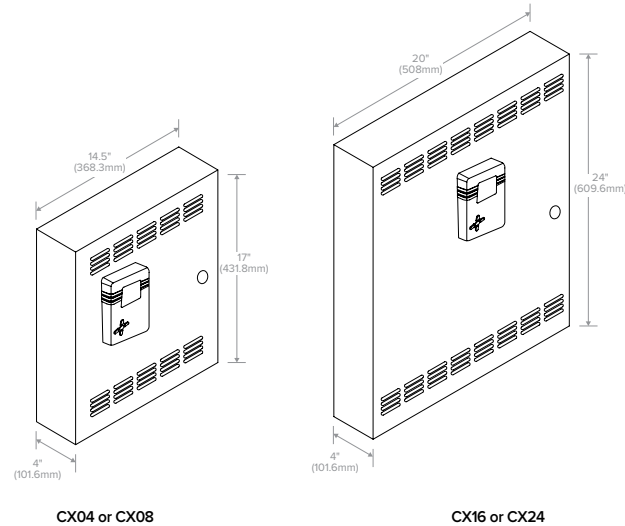
TYPE: _____ PROJECT: _____

CATALOG #: _____

CX LIGHTING CONTROL PANELS

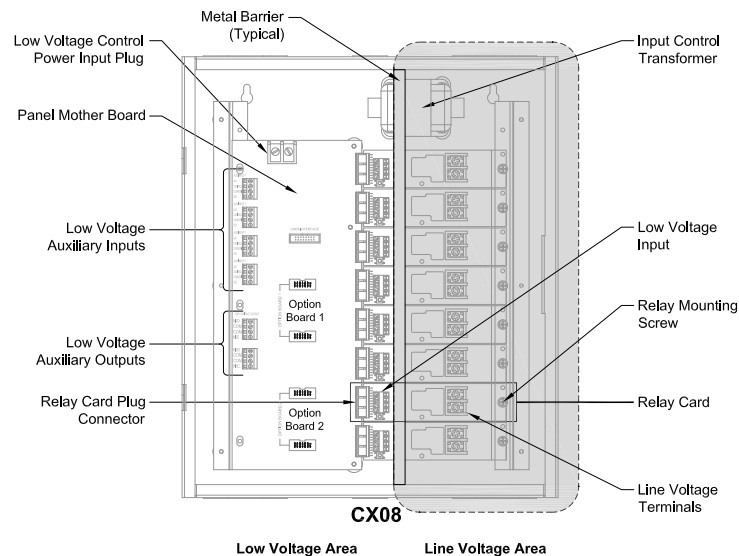
CX COMMERCIAL LIGHTING CONTROL PANELS

DIMENSIONS



ADDITIONAL INFORMATION

Panel Interiors





DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

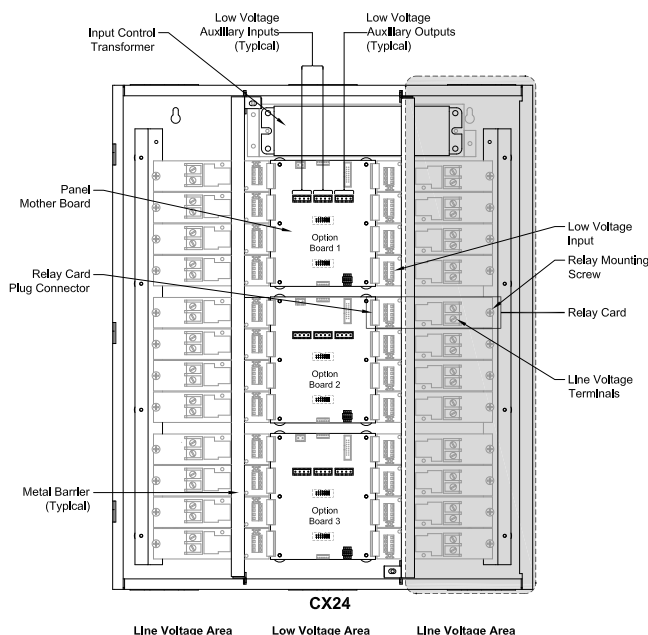
CATALOG #: _____

CX LIGHTING CONTROL PANELS

CX COMMERCIAL LIGHTING CONTROL PANELS

ADDITIONAL INFORMATION (CONTINUED)

Panel Interiors



Accessory Parts List

CX Relays		
Model	Relay Type	
CXR	2N	1-Pole, Elect. Held N.O. 20A @120VAC-Tungsten; 16A @ 277VAC-Elect. Ballast; 20A @277VAC-Mag. Ballast; 14K SCCR @277VAC
	3L	1-Pole Latching 20A @120VAC-Tungsten; 16A @120/277VAC-Elect. Ballast; 30A @120/277VAC-Mag. Ballast; 20A @347VAC-Elect. Ballast; 18K SCCR @347VAC
	3LEM*	1-Pole, Latching 20A @120VAC-Tungsten; 16A @120/277VAC-Elect. Ballast; 30A @120/277VAC-Mag. Ballast; 20A @347VAC-Elect. Ballast; 20A @347VAC-Mag. Ballast; 5K SCCR @347VAC
	TN	2-Pole, Elect. Held N.O. 20A @208/240/480VAC Mag. Ballast; 14K SCCR @480VAC
	TC*	2-Pole, Elect. Held N.O. 20A @208/240/480VAC Mag. Ballast; 14K SCCR @480VAC

Optional 010V Dimming Interface Card

Model	Description
CXDIMCONTRBD	CX Panel 8-Channel dimming Interface board 0-10V Dimming 30mA, sinking current. 4-RJ45 ports for CXSW wall stations.
	CX04 and CX08 Panels only capable of supporting a single Dimming card (No more than 4 total CXDIMCONTRBD can be used with any Master/Secondary configurations; slots provided)

Optional Master/Satellite Interface Cards

Model	Description
CXKITSECINTFC	Master/Satellite Interface Card Replacement Kit (2card set)

© All product and company names, logos and product identifiers are trademarks ™ or registered trademarks ® of Hubbell Lighting, Inc. or their respective owners. Use of them does not necessarily imply any affiliation with or endorsement by such respective owners.

October 13, 2020

Caitlin Cameron
Urban Designer
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: Mercy Hospital Renovation - Design Narrative

The proposed renovation of Mercy Hospital and the adjacent Morrison House is a mixed use project that will add 175 residential apartments to the City of Portland. Eighteen of those units will be affordable housing units located within the main Hospital building. The project also includes an outpatient clinic for Mercy as well as commercial tenant spaces and a self storage facility.

The project is located within the West End Historic District and the project will be renovated in accordance with the National Park Service's Historic Preservation Standards and Guidelines.

The modifications to the existing structure include removal of most of the 1980's addition that faces the Winter Street and Spring Street. The projects exterior scope of work includes replacement of existing windows, rebuilding the exterior walls where the addition will be removed and a new constriction addition to the building.

The addition is a new entry to the apartment uses that faces the new Woonerf on the Southwest elevation of the building. The addition is a contemporary design that differentiates itself from the historic building but is inspired by design elements that exist on the historic structure. The addition has a crisp and clean design with glass and metal siding, with a base of precast concrete to recall the cast stone detailing of the historic building. The roof of the addition has a thin in profile with overhang and clad in metal to relate to the existing entry canopy on Spring Street. We have also created surrounds of the new entries utilizing cast stone in contemporary geometry but are inspired by the cast stone surround language at the historic entries. The glass facades have a rhythm of vertical joints that reflect the historic masonry opening rhythm that existing

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

in their place as well as the historic windows that are above them beyond.

We look forward to discussing the project at the upcoming Planning Board workshop.

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

Utilities

The proposed project will include installation of multiple utility services to the new building.

Water:

Existing domestic and fire suppression water services are anticipated to be continued to be utilized for the redevelopment of the hospital building and Morrison House. MEP to coordinate which existing fire suppression and domestic water services will continue to be utilized. Any unused services will need to be retired per PWD standards. The project proposes to tap two different 6" fire water service lines and two different 2" domestic water service lines for a total of four different connections off of the existing main on Winter Street to serve the future residential buildings along Winter Street.

Sewer:

Existing sanitary sewer services are anticipated to be continued to be utilized for the redevelopment of the hospital building and Morrison House. No additional sewer service upgrades to the existing building are proposed at this time. Two 6-inch sanitary sewer services are proposed, one for each of the future residential buildings along Winter Street. The new sewer services will connect into a combined sewer main within Winter Street.

Stormwater:

There are currently catch basins and stormwater sewer lines on site that are to be removed. The proposed measures to handle runoff include roof drain connections, catch basins, new stormwater sewer lines and a modular wetland system proprietary water quality treatment unit. These systems will connect to a combined sewer main within Spring Street. Please see the Stormwater Management Report for more information.

UGE/T/C:

The existing building on site is currently serviced by underground electric. An additional service is proposed to be routed from the existing electric service in Winter Street. The plans show both an above ground transformer and a potential subsurface electrical vault. Final configuration dependent on final MEP design.

Gas:

The existing gas service lines to the existing buildings are anticipated to be continued to be utilized for the redevelopment. The proposed two new residential buildings will have new gas services installed via a tap off the existing main in Winter Street as seen on the Utility Plan, Sheet C-20.

Ability to serve letters were sent out to the respective utility companies on August 28, 2020 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies will be forwarded upon receipt.





July 1, 2021

Peter F. Heil, PE, CPESC
Acorn Engineering, Inc

Re: 120/148 State Street, PO
Ability to Serve with PWD Water

Dear Mr. Heil:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on August 20, 2020. Based on the information provided per plans dated July 1, 2021, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 4-inch fire service and 2-inch domestic water service, with a 1-inch meter, may be installed from the water main in State Street to serve 148 State Street. The services should enter through the property's frontage on State Street at least 10-feet from any side property lines. The existing 1-inch diameter domestic water service shall be retired per PWD standards, which includes shutting and cutting the service at the main and pulling the box and rod at streetline.
- Our records indicate the existing facility at 120 State Street is served by a 6-inch fire service, 6-inch domestic service, a 6-inch fire service, and a 4-inch domestic water service from State Street. The location of these services in relation to the proposed utility room renders these services unusable. The services shall be retired per PWD standards, which includes removing a section of water main containing the services taps, and sleeving in new water main. A shutdown will be required; shutdown to be coordinated with Portland Water District.
- The existing 6-inch fire service and 4-inch domestic service line from Spring Street may be used to provide water to the Mercy building. A 3-inch water meter will be required to handle the peak demand at the site.
- An approved backflow prevention device must be installed on each service line directly after the meter and before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does currently have existing water service. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 12-inch diameter cast iron water main in State Street and a public fire hydrant located adjacent to the site. The most recent static pressure reading was 60 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

Construction Management Plan

Project Address: 120 and 148 State Street

Project Description:

Acorn Engineering, Inc. has been retained by NewHeight Redfern, LLC. to provide civil engineering services for the proposed redevelopment of 120 and 148 State Street. The proposed project site is comprised of a two parcels, Chart 45, Block C, Lot 7 (120 State Street) and Chart 45, Block C, Lot 6 (148 State Street), encompassed by State, Spring, and Winter Streets. The site is currently comprised of the existing Mercy Hospital complex, including the Morrison House, with surface parking, landscaping, and a loading dock area. The project proposes to redevelop the existing lot into a mixed-use development, consisting of redevelopment of the existing hospital building and proposes two (2) new residential buildings with exterior parking. The two (2) new residential buildings will be submitted under a separate Site Plan application. The existing hospital building will be redeveloped to include 167 residential units within the redeveloped hospital building and 8 residential units within the Morrison House with associated common areas, office, and fitness area, as well as self-storage, commercial/retail space, and a medical clinic.

Project Team Summary:

Owner:	NewHeight Redfern, LLC
Owner's Representative:	NewHeight Redfern, LLC
General Contractor (GC):	TBD
Civil Engineer:	Acorn Engineering, Inc.
Structural Engineer:	TBD
Architect:	Ryan Senatore Architecture

The Owner, GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of measures to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.



A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Guarantees and fees will be paid at the time of the respective application. All necessary permits will be obtained prior to work and compliance with Sections 14-530 and 14-532 is required.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform with all measures of Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along the Federal Street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project. The contract information for the project personnel is:

Erin Cooperrider
NewHeight Redfern, LLC
(207) 720-0181



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

GC and Subcontractor information will be posted along the State Street, Spring Street & Winter Street frontages once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Fall 2021
<u>Project End Date:</u>	Fall 2023

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - o Good Housekeeping
 - o On-site security
 - o Installation of new fire protection systems as construction progresses
 - o Preservation of existing systems during demolition
 - o Organization and training of an on-site fire brigade
 - o Development of a pre-fire plan with the local fire department
 - o Rapid communication
 - o Consideration of special hazards resulting from previous occupancies



- o Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
- 4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
- 5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City Code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Winter & Spring Streets.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Federal Street. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Winter and Spring Streets during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:



- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control for bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately and removal of such shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces.
Driveways and site lines shall not be blocked by piles of snow.



- c. Clear all walks and ramps within the work zone
- d. Sand or salt as needed
- e. Clear all basin or drainage to help snow melt
- f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.
2. Due to the existing, sparse landscaping on site, no protection during construction will be necessary.
3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for material staging areas, on-site temporary construction trailers, on-site truck delivery holding areas, on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Upon arrival to site, all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided along Federal Street or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes: Trucks will access the site via State Street, Spring Street and Winter Street.



L. Special Measures as Necessary

The abutting buildings will be subject to a pre and post construction survey to monitor any effects from construction. The surveys shall consist of photographs of the foundation as viewed from outside and inside if granted permission.



Solid Waste Disposal

Solid waste disposal is currently located within the interior of the building's basement, with two existing trash compactors and dumpster within the loading dock area. One (1) of the existing trash compactors will be relocated along the existing retaining wall within the loading dock area that will continue to be utilized. The other trash compactor and dumpster will be removed. See architectural drawings and Sheet C-10, Site Plan for additional information.





Traffic Solutions
William J. Bray, P.E.
 17 Mountview Drive
 Gorham, ME 04038
 (207) 400-6890
trafficsolutions@maine.rr.com

September 11, 2020

Parking Assessment

Proposed

“Mercy Hospital Redevelopment”

INTRODUCTION

NEWHEIGHT REDFERN, LLC are proposing redevelopment of the existing Mercy Hospital building creating a total of 167 residential apartment units and 8 additional residential units in the adjoining Morrison building for a total of 175 residential units. The proposed mixed-use redevelopment project also provides; a self-storage facility, commercial/retail space, and a medical clinic. The applicant is also working with Community Housing of Maine (CHOM), a Portland-based non-profit affordable housing developer that is expected to construct an additional 99 affordable residential housing units within the proposed development site.

The proposed 175 residential housing units include 157 market rate units and 18 affordable workforce units. Thirty-seven (37) of the proposed units are studios, 136 units are one-bedroom and the remaining 2 units are two-bedroom.

The proposed CHOM housing project constructs two new buildings along the Winter Street frontage of the Mercy Hospital property that is expected to provide a total of 58 affordable senior housing units and 41 family housing units. The affordable senior units include; (1) studio and (56) one-bedroom units. The proposed affordable family units include; (17) one-bedroom, (16) two-bedroom and (9) three-bedroom units.

The proposed redevelopment project provides a total of 68 parking spaces within the Mercy Hospital campus with 52 of the spaces designated as full-size (9'x18') spaces and the remaining 16 spaces are “tandem” spaces.

This document provides a determination of the “average” peak parking demand for the proposed “Mercy Hospital Redevelopment” and CHOM projects, appropriately applying both national parking trends and local parking data. The analytical determination of “average” peak parking demand for a mixed-use development must also account for the time-of-day distribution of the actual parking demand. For example, the peak parking demand requirements of one proposed use could likely occur at 7:00 p.m.; whereas the peak parking demand of a second building use may occur at 1:00 p.m. The net result is that the parking demand of multiple land-uses may be able to use the same parking space at different times of the day; thereby, reducing the actual peak parking demand of the site. Further, the analytical process followed in forecasting the peak parking demand of the proposed Mercy and CHOM sites also accounts for internally captured trips; oftentimes referred to as “shared-use” trips. It is reasonable to expect a resident in one of the proposed housing units purchasing coffee in the proposed

neighborhood coffee shop and/or perhaps groceries in the proposed variety store. As a result, unless these internal trips are accounted for the projection of trips and, ultimately parking demand requirements of the proposed project, are overstated.

The parking demand requirements of the proposed Mercy Hospital Redevelopment and CHOM projects are partially met with the provision of the proposed 68 on-site parking spaces and the remaining balance of required parking spaces will be met with a combination of one or more of the following options; payment of the City's in-lieu fee, off-site parking leases, and/or other undefined possibilities.

PARKING DEMAND

National parking demand data presented in the 5th Edition of the Institute of Transportation Engineers (ITE) "PARKING GENERATION" publication is typically the instrument used in estimating the actual parking demand of a development site. The 5th edition, which was published in January 2019, represents the most current copy of the noted ITE document. The ITE manual provides "average" peak parking demand rates for more than 100 land-use categories including: residential, lodging, recreational, institutional, medical, retail, office, services, etc. Occasionally, proposed development uses are more locally specific and/or are not presently accounted for in the national parking publication. In those instances, average peak parking demand is typically determined based upon local studies conducted at similar development uses. Parking rates are provided for both a weekday and Saturday condition.

The "average" peak parking demand requirements of the proposed Mercy Hospital Redevelopment mixed-use project and the CHOM housing project is estimated based upon the following projected site uses:

Mercy Hospital Redevelopment Mixed-Use Project

Market Rate Residential Apartment Units

- (33) studio units
- (122) one-bedroom units
- (2) two-bedroom units

Affordable Workforce Units

- (4) studio units
- (14) one-bedroom units

Self-Storage Facility – 41,209sf

Medical Clinic – 3,849sf

Commercial Retail Units

- Neighborhood Variety Store – 1,635sf
- Neighborhood Coffee Shop – 1,059sf
- Small Professional Office – 787sf
- Hair Salon – 648sf

CHOM Affordable Residential Housing Units

- 58 Affordable Senior Residential Housing Units
- 41 Affordable Family Residential Housing Units

Parking Demand Requirement Procedures

Mercy Hospital Redevelopment Mixed-Use Project

The peak parking demand requirements of the proposed market rate apartment units is based upon Land-Use #221- Multi-Family Housing (Mid-Rise) presented in the noted ITE “**PARKING GENERATION**” publication. This land-use category is generally used for buildings between three and 10 floors in height. A peak parking rate of 0.48 spaces per bedroom was applied in calculating the peaking demand requirements of the proposed market rate units.

Similarly, the peak parking demand requirements of the proposed affordable workforce apartment units is based upon Land-Use #223 - Affordable Housing – Income Limits in the national parking document. The parking rate used in determining the peak parking demand of the 18 workforce apartment units for a weekday is 0.30 spaces per bedroom.

Peak parking demand for the proposed self-storage facility was determined based upon Land-Use #151 - Mini-Warehouse in the 5th edition of the parking publication. The parking rate applied is 0.10 spaces per 1,000sf of total buildings(s) area.

The peak parking demand for the proposed medical clinic facility is based upon Land-Use #630 - Clinic in the noted publication. The parking demand rate applied is 3.89 spaces per 1,000sf of building area.

Parking demand for the proposed variety store was based upon Land-Use #814 - Variety Store in the ITE parking documents. The parking rate applied is 1.13 spaces per 1,000sf.

Parking demand for the proposed neighborhood coffee shop is based upon a traffic study conducted at an existing neighborhood coffee shop located on Munjoy Hill at Congress and Atlantic Streets. The results of the field survey, as presented below in Table A, demonstrates the majority of the customers (approximately 92%) of the total recorded trips are pedestrian trips generated within the local neighborhood. It is expected that any customer arriving via automobile to the proposed neighborhood coffee shop will park on-street and, as a result, off-street parking is not required. To conservatively project the parking demand of the proposed coffee shop a total of three parking spaces are provided.

Table A
Trip Generation Summary
Neighborhood Coffee Shop
(Congress Street @ Atlantic Street)

<u>Survey Time</u>	<u>Entering Trips</u>		<u>Exiting Trips</u>		<u>Total Trips</u>	
	<u>Pedestrian Trips</u>	<u>Vehicle Trips</u>	<u>Pedestrian Trips</u>	<u>Vehicle Trips</u>	<u>Pedestrian Trips</u>	<u>Vehicle Trips</u>
8:00 to 8:15 AM	7	1	7	1	14	2
8:15 to 8:30 AM	5	2	3	2	8	4
8:30 to 8:45 AM	9	2	7	2	16	4
8:45 to 9:00 AM	12	3	8	2	20	5
9:00 to 9:15 AM	8	1	10	2	18	3
9:15 to 9:30 AM	4	1	6	1	10	2
Total Trips	45	10	41	10	86	20

Parking demand for the proposed small professional office space is based upon Land-Use #712 - Small Office Building. The parking demand rate applied is 2.56 spaces per 1,000sf GFA.

A total of one (1) parking space is allocated to the proposed hair salon shop, which assumes the majority of the customer base will walk and/or share a ride to the proposed local hair salon shop.

CHOM Affordable Residential Unit Projects

Parking demand for the proposed affordable senior housing units is based upon the following descriptive process used for a similar recent CHOM project located at 83 Middle Street.

Land-use #223 - Affordable Housing - Seniors A subset of the *Affordable Housing* land-use category was selected in estimating the average peak parking demand of the proposed project. An average peak parking demand rate of 0.42 spaces per unit is provided under this land-use category. The projected parking rate is based upon a total of three study sites with a combined number of 97 apartment units. Both study metrics are less than what is typically desirable in projecting, with a high level of confidence, the average peak parking demand rate for a specific development site. Based upon the national parking data the proposed 50-unit residential apartment project is expected to generate an average peak parking demand of 21 parking spaces.

Local parking data previously collected at two senior low-income housing sites located on the Portland Peninsular suggests the national parking rate likely over states the actual peak parking demand requirements of a low-income senior housing project. Parking utilization surveys were conducted at two existing senior-adult low-income housing facilities on the Portland Peninsular to augment the national parking demand data. The existing sites included: 1) 47 Smith Street, a 20-unit site and 2) Danforth on High, a 30-unit site. A total of 20 spaces are provided at the 47 Smith Street site and 13 parking spaces are located at the Danforth on High apartment site. Parking utilization data was gathered at both sites in the early morning (prior to 6:00 a.m.) on two separate days. Table B, as follows, presents the results of the parking surveys:

Table B
Parking Utilization Data
Existing Portland Peninsular Senior Housing Facilities

<i>Facility Location</i>	<i>Number of Apartment Units</i>	<i>Number of Parking Spaces</i>	<i>Occupied Spaces – Day 1</i>	<i>Occupied Spaces – Day 2</i>
<i>47 Smith Street</i>	<i>20</i>	<i>20</i>	<i>5 spaces</i>	<i>6 spaces</i>
<i>Danforth on High</i>	<i>30</i>	<i>13</i>	<i>4 spaces</i>	<i>4 spaces</i>
<i>TOTAL</i>	<i>50</i>	<i>33</i>	<i>9 spaces</i>	<i>10 spaces</i>

The results of the local Portland based parking survey shows a combined average peak parking demand of **9.5** parking spaces for the two senior adult apartment sites or an average peak parking demand of 0.19 spaces per apartment unit ($9.5 \div 50 = 0.19$ spaces per apartment unit). The local parking data would suggest a total of ten spaces is adequate to meet the parking demand requirements of the proposed 83 Middle Street low-income senior apartment project.

Accordingly, a peak parking demand rate of 0.31 spaces per unit was applied in determining peak parking demand of the proposed affordable senior housing units.

Parking demand for the proposed affordable family housing units is based upon Land-Use #223 - Affordable Housing – Income Limits in the 5th edition of the “**PARKING GENERATION**” publication. The parking rate applied is 0.53 spaces per unit.

Tables 1, as follows, presents the “average” peak parking demand requirements for both the proposed Mercy and CHOM projects for a typical weekday:

Table 1
“Peak” Parking Demand Summary
For
“Mercy Hospital Development/CHOM Sites”
(Weekday Condition)

Proposed Use	Unit Size	Land-Use Code	Peak Parking Demand Rate	Parking Space Requirements
Affordable Senior Housing Units	58 units	LUC 223/Local Data	0.31 spaces/unit ⁽¹⁾	18 spaces
Affordable Family Housing Units	41 units	LUC 223	0.53 spaces/unit	22 spaces
Market Rate Apartments	159 bedrooms	LUC 221	0.48 spaces/bedroom	76 spaces
Affordable Workforce Apartments	18 bedrooms	LUC 223	0.30 spaces/bedroom	5 spaces
Medical Clinic	3,849 sf	LUC 630	3.89 spaces/1,000 GFA	15 spaces
Self-storage Facility	41,209sf	LUC 151	0.10 spaces/1,000 GFA	4 spaces
Variety Store	1,635sf	LUC 814	1.13 spaces/1,000 GFA	2 spaces
Neighborhood Coffee Shop	1,059sf	n/a	Parking is provided for 3 employees	3 spaces
Small Office Space	787sf	LUC 712	2.56 spaces/1,000 GFA	2 spaces
Hair Salon	648sf	n/a	Parking is provided for Owner only	1 space
			TOTAL Spaces	148 spaces

NOTE: ⁽¹⁾ parking demand rate based upon an average of LUC #223 and local parking data.

The “average” unadjusted peak parking demand of the combined Mercy and CHOM projects is estimated at **148** spaces for a typical weekday condition.

Parking Demand Adjustments: Due to the diversity of proposed uses within the Mercy/CHOM projects site, an adjustment is applied to refine the actual parking demand of the proposed combined developments. The adjustment accounts for multi-purpose trips that occur between one or more tenant spaces within the development sites; often referred to as “*shared or internally captured*” trips. These trips must be accounted for or the projection of peak parking demand overstates the actual peak parking demand of a specific development site. The National Cooperative Highway Research Program’s (NCHRP) 684 Internal Trip Capture Estimation Tool was utilized in calculating the number of shared or captured trips generated by the proposed sites. Separate analyses were conducted for both the weekday morning and evening peak hour time periods and the trip rates calculated for each time period (15% AM Peak Hour and 7% PM Peak Hour) were then averaged to provide a conservative estimate of 10% percent. Copies of the NCHRP worksheets for both the weekday AM and PM peak hours are attached for reference.

Tables 2, below, summarizes the adjusted “average” peak parking demand for the proposed sites for a typical weekday condition:

Table 2
Adjusted Parking Demand Summary
For
“Mercy Hospital Development/CHOM Sites”
(Weekday Condition)

Proposed Use	Peak Parking Demand (Spaces)	Shared Trip Adjustment ⁽¹⁾	Adjusted Parking Demand
Affordable Senior Housing Units	18 spaces	-2	16 spaces
Affordable Family Housing Units	22 spaces	-2	20 spaces
Market Rate Apartments	76 spaces	-8	68 spaces
Affordable Workforce Apartments	5 spaces	-1	4 spaces
Medical Clinic	15 spaces	-2	13 spaces
Self-storage Facility	4 spaces	0	4 spaces
Variety Store	2 spaces	0	2 spaces
Neighborhood Coffee Shop	3 spaces	0	3 spaces
Small Office Space	2 spaces	0	2 spaces
Hair Salon	1 space	0	1 space
TOTAL	148 spaces	-15 spaces	133 spaces

NOTE: ⁽¹⁾ Percentage of “shared trips” is based upon an average of values determined through the NCHRP 684 tool for the weekday AM and PM peak hours.

Hourly Parking Demand: The noted ITE Parking Generation publication provides further guidance in estimating the actual parking demand of a mixed-use or multi-use project. They state the following: *“the hourly variation in parking demand for the individual land uses can result in conditions where the parking demand for one land use is high while the demand for a different land use is low. In this situation, parking demand for both land uses may be able to use the same parking space at different times of the day. The end result can be a reduction in overall peak parking demand.”*

The ITE Parking Generation manual provides time-of-day percent peak parking demand values for each land-use category for completing this determination. The actual percent values applied in completing these calculations are presented in Table 3 as follows:

Table 3
Hourly Peak Parking Demand (percent value) Summary
For
"Mercy Hospital Development/CHOM Sites"
(Weekday Condition)

Time of Day	Affordable Senior Housing	Affordable Family Housing	Market Rate Apartments	Affordable Workforce Apartments	Medical Clinic	Self-storage Facility	Variety Store	Neighborhood Coffee Shop (1)	Small Office Space	Hair Salon (2)
7:00 AM	71	71	71	71	0	0	4	100	8	0
8:00 AM	61	61	61	61	63	14	20	100	17	0
9:00 AM	55	55	55	55	93	71	53	100	17	100
10:00 AM	54	54	54	54	96	50	55	100	75	100
11:00 AM	53	53	53	53	100	79	56	100	67	100
12:00 PM	50	50	50	50	80	57	67	100	75	100
1:00 PM	49	49	49	49	75	64	69	100	75	100
2:00 PM	49	49	49	49	90	64	80	100	92	100
3:00 PM	50	50	50	50	89	79	67	0	100	100
4:00 PM	58	58	58	58	74	71	68	0	67	100
5:00 PM	64	64	64	64	41	100	100	0	83	100
6:00 PM	67	67	67	67	15	14	87	0	50	0
7:00 PM	70	70	70	70	0	0	48	0	0	0
8:00 PM	76	76	76	76	0	0	37	0	0	0

NOTES:

- (1) A total of three parking spaces are allocated to the proposed coffee shop for employees during the noted time period only. Both determinations are based upon the consultant's projections.
- (2) One parking space is provided to the owner of the proposed hair salon; it is assumed that the majority of customers will either walk or share a trip with another driver.

Finally, Table 4 estimates the "average" adjusted hourly peak parking demand requirements of the proposed project based upon the procedures described in the ITE Parking Generation publication.

Table 4
Hourly Peak Parking Demand Summary
For
"Mercy Hospital Development/CHOM Sites"
(Weekday Condition)

	Affordable Senior Housing	Affordable Family Housing	Market Rate Apartments	Affordable Workforce Apartments	Medical Clinic	Self-Storage Facility	Variety Store	Neighborhood Coffee Shop (1)	Small Office Space	Hair Salon (1)	Total
Adjusted Peak Parking Demand	16 spaces	20 spaces	68 spaces	4 spaces	13 spaces	4 spaces	2 spaces	3 spaces	2 spaces	1 space	133 spaces
Time of Day											
7:00 AM	11 spaces	14 spaces	48 spaces	3 spaces	0	0	0	3 spaces	0	0	79 spaces
8:00 AM	10 spaces	12 spaces	41 spaces	2 spaces	8 spaces	1 space	0	3 spaces	0	0	77 spaces
9:00 AM	9 spaces	11 spaces	37 spaces	2 spaces	12 spaces	3 spaces	1 space	3 spaces	0	1 space	79 spaces
10:00 AM	9 spaces	11 spaces	37 spaces	2 spaces	12 spaces	2 spaces	1 space	3 spaces	2 spaces	1 space	80 spaces
11:00 AM	8 spaces	11 spaces	36 spaces	2 spaces	13 spaces	3 spaces	1 space	3 spaces	1 space	1 space	79 spaces
12:00 PM	8 spaces	10 spaces	34 spaces	2 spaces	10 spaces	2 spaces	1 space	3 spaces	2 spaces	1 space	73 spaces
1:00 PM	8 spaces	10 spaces	33 spaces	2 spaces	10 spaces	3 spaces	1 space	3 spaces	2 spaces	1 space	73 spaces
2:00 PM	8 spaces	10 spaces	33 spaces	2 spaces	12 spaces	3 spaces	2 spaces	3 spaces	2 spaces	1 space	76 spaces
3:00 PM	8 spaces	10 spaces	34 spaces	2 spaces	12 spaces	3 spaces	1 space	0	2 spaces	1 space	73 spaces
4:00 PM	9 spaces	12 spaces	39 spaces	2 spaces	10 spaces	3 spaces	1 space	0	1 space	1 space	78 spaces
5:00 PM	10 spaces	13 spaces	44 spaces	3 spaces	5 spaces	3 spaces	2 spaces	0	2 spaces	1 space	83 spaces
6:00 PM	11 spaces	13 spaces	46 spaces	3 spaces	2 spaces	1 space	2 spaces	0	1 space	0	79 spaces
7:00 PM	11 spaces	14 spaces	48 spaces	3 spaces	0 spaces	0 spaces	1 space	0	0	0	77 spaces
8:00 PM	12 spaces	15 spaces	52 spaces	3 spaces	0 spaces	0 spaces	1 space	0	0	0	83 spaces

Accordingly, the average adjusted peak hourly parking demand of the site for a typical weekday occurs in the early evening at both 5:00 p.m. and, again, at 8:00 p.m. with a peak parking demand of **83** spaces.

PARKING SUPPLY

The Applicant proposes to satisfy the peak parking demand requirements of the combined Mercy Hospital Redevelopment mixed-use project and the adjoining CHOM affordable residential apartment project with any combination of the following parking solutions:

- 52 on-site full dimensioned parking spaces.
- 16 on-site “*tandem*” parking spaces.
- The City’s In-Lieu Fee, and/or
- Leased off-site parking spaces

The Applicant is requesting conditional approval of the project that allows a phased approach in meeting the full parking demand requirements of the site. We suggest two phases of development; Phase I would include approvals to construct a mix of tenant spaces whose combined peak parking demand is equal to or less than 68 parking spaces. Phase II would authorize the “*fit-up*” of the remaining tenant spaces and require an obligation to provide an acceptable plan for accounting for the remaining required parking spaces.

SUMMARY

- The proposed Mercy Hospital Redevelopment mixed-use project and the adjoining CHOM affordable residential apartment projects is projected to generate an “*average*” peak parking demand of approximately **148** spaces on a typical weekday. The estimates of peak parking demand were developed based upon national parking demand rates presented in the 5th edition of the Institute of Transportation’s “**PARKING GENERATION**” publication and parking data collected locally within the City of Portland.
- The determination of “*average*” peak parking demand for the proposed project includes an adjustment for “*shared-use*” trips, which account for the occurrence of multi-purpose trips between one or more tenant spaces. The noted parking adjustments reduce the “*average*” peak parking demand of the site to **133** weekday spaces.
- The final step in forecasting the “*average*” peak parking demand requirements of the proposed Mercy Hospital Redevelopment mixed-use site and the CHOM affordable residential apartment projects considers the “*shared parking space*” benefits of a mixed-use or multi-use project. The previously referenced “**PARKING GENERATION**” publication provides the following guidance: “*the hourly variation in parking demand for the individual land uses can result in conditions where the parking demand for one land use is high while the demand for a different land use is low. In this situation, parking demand for both land uses may be able to use the same parking space at different times of the day. The end result can be a reduction in overall peak parking demand.*” The parking manual provides time-of-day percent of peak parking demand values for each land-use category; whereby, the actual hourly parking demand of the project site can be calculated. The results of this final process show the “*average*” peak parking demand of the combined Mercy Hospital site projects occurs at 5:00 p.m. and, again, at 8:00 p.m. during a typical weekday. The peak hourly parking demand for the weekday, accounting for shared use of the available on-site parking spaces, is estimated at **83** spaces.

- The Applicant will meet the parking demand requirements of the combined development projects with construction of 68 on-site parking spaces and the remaining parking requirements will be secured through either private lease agreements, payment of the City's in-lieu fee or another acceptable option.
- The Applicant will request conditional approval of the proposed project that allows a phased approach in meeting the projected peak parking demand requirements of the Mercy and CHOM projects. The first phase requests conditional approval to allow construction of proposed tenant space(s) whose combined peak parking demand is equal to or less than a total of 68 parking spaces; the second phase would allow development of the remaining tenant space(s) with an obligation to secure the remaining parking spaces meeting the balance of the calculated parking demand of the project sites.





Traffic Solutions
William J. Bray, P.E.
17 Mountview Drive
Gorham, ME 04038
(207) 400-6890
trafficsolutions@maine.rr.com

October 13, 2020

Traffic Assessment

For Proposed

“Mercy Hospital Redevelopment”

Portland, Maine

INTRODUCTION

NEWHEIGHT REDFERN, LLC are proposing redevelopment of the existing 242,000 square foot Mercy Hospital creating a total of 167 residential apartment units and 8 additional residential units in the adjoining Morrison building for a total of 175 residential units. The proposed mixed-use redevelopment project also provides; a self-storage facility, commercial/retail space, and a medical clinic. The applicant is also working with Community Housing of Maine (CHOM), a Portland-based non-profit affordable housing developer, who proposes to construct an additional 99 affordable residential housing units within the proposed development site.

The proposed redevelopment project provides a total of 68 parking spaces within the Mercy Hospital campus with 52 of the spaces designated as full-size (9'x18') spaces and the remaining 16 spaces are “tandem” spaces.

Primary access to the Mercy Hospital site is provided with construction of a 22-foot wide driveway entrance intersecting Spring Street just north of the Winter Street intersection. The proposed redevelopment project also retains the existing State Street driveway entrance as a secondary means of ingress/egress to the project site. A 16-foot wide emergency access lane is also proposed off Winter Street connecting to the internal parking area.

Traffic projections are developed for both the existing Mercy Hospital facility and the proposed multi-use redevelopment project applying a combination of both national trip generation data published in the 10th edition of Institute of Transportation Engineers “**TRIP GENERATION**” publication and local traffic surveys conducted on the Portland peninsular. For analysis purposes, traffic projections for the proposed multi-use Mercy Hospital Redevelopment project and adjoining CHOM site are based upon the following site details:

Mercy Hospital Redevelopment Mixed-Use Site

- 157 Market Rate Residential Apartment Units
- 18 Affordable Workforce Residential Apartment Units
- Self-Storage Facility – 41,209sf

- Medical Clinic – 3,849sf
- Neighborhood Variety Store – 1,635sf
- Neighborhood Coffee Shop – 1,059sf
- Small Professional Office Space – 787sf
- Hair Salon – 648sf

CHOM Affordable Residential Housing Units

- 58 Affordable Senior Residential Housing Units
- 41 Affordable Family Residential Housing Units

Existing road safety conditions in the immediate area of the project site are also reviewed based upon MaineDOT's highway safety reports for the time period of 2017 through 2019.

SITE TRAFFIC GENERATION

Proposed Mercy Hospital Redevelopment Mixed-Use Project: Peak hour trip forecasts for the Mercy Hospital Redevelopment project are prepared for the proposed site uses applying trip rate information detailed in the 10th edition of the noted ITE **"TRIP GENERATION"** publication and traffic data gathered at local City of Portland establishment. The following specific site uses are defined as follows:

- 157 Market Rate Residential Apartment Units
- 18 Affordable Workforce Residential Apartment Units
- Self-Storage Facility – 41,209sf
- Medical Clinic – 3,849sf
- Neighborhood Variety Store – 1,635sf
- Neighborhood Coffee Shop – 1,059sf
- Small Professional Office Space – 787sf
- Hair Salon – 648sf

The details of that process are presented as follows:

1. **Site Trip Generation – Self-Storage Facility (41,209sf):** Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers **"TRIP GENERATION"** manual. The following trip rates were applied in that effort:

Land-Use #151: Mini-Warehouse

Weekday AM Peak Hour (Street)	= 0.10 trips/1,000sf GFA
Weekday PM Peak Hour (Street)	= 0.17 trips/1,000sf GFA
Weekday AM Peak Hour (Generator)	= 0.20 trips/1,000sf GFA
Weekday PM Peak Hour (Generator)	= 0.20 trips/1,000sf GFA

Table 1, below provides a summary of the trip generation for the proposed self-storage facility:

Table 1
Peak Hour Trip Generation Summary
(Self-Storage Facility)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	4
PM Peak Hour (Street)	7
AM Peak Hour (Generator)	8
PM Peak Hour (Generator)	8

2. **Site Trip Generation – Proposed Market Rate and Affordable Workforce Residential Apartments (175 Units):** Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied in that effort:

Land-Use #221: Multi-family Housing (Mid-Rise)

Weekday AM Peak Hour (Street)	= 0.20 trips/unit
Weekday PM Peak Hour (Street)	= 0.18 trips/unit
Weekday AM Peak Hour (Generator)	= 0.15 trips/unit
Weekday PM Peak Hour (Generator)	= 0.18 trips/unit

Table 2, below provides a summary of the trip generation for the proposed 175 market rate and affordable workforce residential apartments units:

Table 2
Peak Hour Trip Generation Summary
(175 Residential Apartments)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	35 trips
PM Peak Hour (Street)	32 trips
AM Peak Hour (Generator)	26 trips
PM Peak Hour (Generator)	32 trips

3. **Site Trip Generation – Medical Clinic (3,849sf):** Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied in that effort:

Land-Use #630: Clinic

Weekday AM Peak Hour (Street)	= 3.69 trips/1,000sf GFA
Weekday PM Peak Hour (Street)	= 3.28 trips/1,000sf GFA
Weekday AM Peak Hour (Generator)	= 5.22 trips/1,000sf GFA
Weekday PM Peak Hour (Generator)	= 4.64 trips/1,000sf GFA

Table 3, below provides a summary of the trip generation for the proposed medical clinic:

Table 3
Peak Hour Trip Generation Summary
(Medical Clinic)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	14
PM Peak Hour (Street)	13
AM Peak Hour (Generator)	20
PM Peak Hour (Generator)	18

4. **Site Trip Generation – Small Professional Office Building (787sf):** Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied in that effort:

Land-Use #712: Small Office Building

Weekday AM Peak Hour (Street)	= 1.92 trips/1,000sf GFA
Weekday PM Peak Hour (Street)	= 2.45 trips/1,000sf GFA
Weekday AM Peak Hour (Generator)	= 3.26 trips/1,000sf GFA
Weekday PM Peak Hour (Generator)	= 3.73 trips/1,000sf GFA

Table 4, below provides a summary of the trip generation for the proposed small professional office building:

Table 4
Peak Hour Trip Generation Summary
(Small Office Building)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	2
PM Peak Hour (Street)	2
AM Peak Hour (Generator)	3
PM Peak Hour (Generator)	3

5. **Site Trip Generation – Small Variety Store (1,635sf):** Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied in that effort:

Land-Use #814: Variety Store

Weekday AM Peak Hour (Street)	= 3.18 trips/1,000sf GFA
Weekday PM Peak Hour (Street)	= 6.84 trips/1,000sf GFA
Weekday AM Peak Hour (Generator)	= 4.52 trips/1,000sf GFA
Weekday PM Peak Hour (Generator)	= 7.42 trips/1,000sf GFA

Table 5, below provides a summary of the trip generation for the proposed variety store:

Table 5
Peak Hour Trip Generation Summary
(Variety Store)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	5
PM Peak Hour (Street)	11
AM Peak Hour (Generator)	7
PM Peak Hour (Generator)	12

6. **Site Trip Generation – Hair Salon (648sf):** Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied in that effort:

Land-Use #918: Hair Salon ⁽¹⁾

Weekday AM Peak Hour (Street)	= 1.21 trips/1,000sf GFA
Weekday PM Peak Hour (Street)	= 1.45 trips/1,000sf GFA
Weekday AM Peak Hour (Generator)	= 1.21 trips/1,000sf GFA
Weekday PM Peak Hour (Generator)	= 1.94 trips/1,000sf GFA

NOTE: ⁽¹⁾ Trip rate information published for LUC #918 is based upon a single field survey; trip projections presented for each peak hour time period doubles the volume of trips generated by the ITE trip rates.

Table 6, below provides a summary of the trip generation for the proposed hair salon:

Table 6
Peak Hour Trip Generation Summary
(Hair Salon)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	2
PM Peak Hour (Street)	2
AM Peak Hour (Generator)	2
PM Peak Hour (Generator)	2

7. **Site Trip Generation – Proposed Neighborhood Coffee Shop (1,059sf):** Site trip generation is developed based upon a local traffic study conducted at an existing neighborhood coffee shop located at the intersection of Congress and Atlantic Streets on Munjoy Hill. The following, Table A, provides a summary of the results of that traffic survey:

Table A
Trip Generation Summary
Neighborhood Coffee Shop
(Congress Street @ Atlantic Street)

<u>Survey Time</u>	<u>Entering Trips</u>		<u>Exiting Trips</u>		<u>Total Trips</u>	
	<u>Pedestrian Trips</u>	<u>Vehicle Trips</u>	<u>Pedestrian Trips</u>	<u>Vehicle Trips</u>	<u>Pedestrian Trips</u>	<u>Vehicle Trips</u>
8:00 to 8:15 AM	7	1	7	1	14	2
8:15 to 8:30 AM	5	2	3	2	8	4
8:30 to 8:45 AM	9	2	7	2	16	4
8:45 to 9:00 AM	12	3	8	2	20	5
9:00 to 9:15 AM	8	1	10	2	18	3
9:15 to 9:30 AM	4	1	6	1	10	2
AM Peak Hour Total	33	7	31	7	64	14

As presented in the body of Table A, the existing neighborhood coffee shop located on Munjoy Hill generates very few vehicle trips during the AM peak hours, with a total of 14 vehicle trips recorded during the morning peak hour. A similar trip generation value is projected for the proposed neighborhood coffee shop. Vehicular trips generated by the proposed coffee shop; albeit, a very small number, are fully expected to use available on-street parking spaces to patronize the proposed coffee shop. In the opinion of this report, the actual number of vehicular trips generated will be far less than the estimated values presented in Table 7 below:

Table 7
Peak Hour Trip Generation Summary
Neighborhood Coffee Shop

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	14 trips
PM Peak Hour (Street)	closed
AM Peak Hour (Generator)	14 trips ⁽¹⁾
PM Peak Hour (Generator)	closed

NOTES: ⁽¹⁾ Trip estimates, as noted are based upon existing AM peak hour data collected at existing Munjoy Hill coffee shop.

Mercy Hospital Redevelopment – Total Trip Generation: The proposed Mercy Hospital Redevelopment Project is projected to generate approximately 76 vehicle trips in the AM peak hour of the street, an additional 67 trips during the evening peak hour of the street and similar trip volumes of 80 vehicles and 75 vehicles, respectively, in the morning and evening peak hours of the site.

Proposed Community Housing of Maine (CHOM) Affordable Residential Housing Units (99 total units): Peak hour trip forecasts for the proposed CHOM development are prepared by applying trip rate information detailed in the 10th edition of the noted ITE trips publication, as follows:

- Site Trip Generation – Proposed Affordable Senior and Family Housing Apartments (99 Units):**
 Trip generation is based upon tables presented in the 10th edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual. The following trip rates were applied in that effort:

Land-Use #221: Multi-family Housing (Mid-Rise)

Weekday AM Peak Hour (Street)	= 0.20 trips/unit
Weekday PM Peak Hour (Street)	= 0.18 trips/unit
Weekday AM Peak Hour (Generator)	= 0.15 trips/unit
Weekday PM Peak Hour (Generator)	= 0.18 trips/unit

Table 1, below provides a summary of the trip generation for the proposed 99 CHOM affordable residential housing units:

Table 1
Peak Hour Trip Generation Summary
(99 Affordable Senior and Family Residential Apartments)

Peak Hour Time Period	Peak Hour Trip Generation
AM Peak Hour (Street)	20 trips
PM Peak Hour (Street)	18 trips
AM Peak Hour (Generator)	15 trips
PM Peak Hour (Generator)	18 trips

The proposed Community Housing of Maine project is expected to generate approximately **20** vehicle trips in the AM peak hour of the street, an additional **18** trips during the evening peak hour of the street and similar trip volumes of **15** vehicles and **18** vehicles, respectively, in the morning and evening peak hours of the site.

Mercy Hospital Redevelopment and Community Housing of Maine – Total Trip Generation: Combined, the proposed Mercy Hospital Redevelopment and the adjoining Community Housing of Maine sites are expected to generate approximately **96** vehicle trips in the AM peak hour of the street, an additional **85** trips during the evening peak hour of the street and similar trip volumes of **95** vehicles and **93** vehicles, respectively, in the morning and evening peak hours of the site.

SITE TRIP ADJUSTMENT

A finite number of residents, employees of the proposed commercial spaces and/or customers of those same spaces, are classified as internal or shared trips; trips that do not leave the confines of the proposed Mercy Hospital Redevelopment site. These multi-purpose trips, if not accounted for, overestimate the actual vehicular traffic impacts of the combined project site (*For example, an apartment resident purchasing their morning coffee at the proposed neighborhood coffee shop doing so by simply walking from their apartment to the proposed coffee shop.*). Numerous other likely internal trip patterns will be generated by the proposed site and their impact must be accounted for.

The National Cooperative Highway Research Program's (NCHRP) 684 Internal Trip Capture Estimation Tool provides a process for estimating the number of shared or captured trips generated by a development project. Copies of the spreadsheets used in the analysis are attached as an appendix to the report. The summarized internal capture rates, as determined from the NCHRP 684 Worksheet Section 5-A, provide the following internal capture rates (percentages) applicable to the Mercy Hospital Redevelopment site uses:

Trip Capture Percent	Total	Entering Trips	Exiting Trips
AM Peak Hour	15%	21%	11%
PM Peak Hour	7%	6%	9%

Traffic Solutions, to conservatively forecast the number of internally captured or shared trips generated by the proposed combined Mercy Hospital Redevelopment and CHOM projects, has applied a 10% captured trip rate; which, is the average of the estimated percentage calculated for the AM and PM peak hours.

Based upon the described methodology presented above, a total of 9 to 10 internal captured or shared trips are generated in each of the defined peak hour time periods.

Accounting for these shared use trips; which do not travel to or from the public street system, the combined Mercy and CHOM project sites are expected to generate between 76 and 86 vehicle trips during the “key” peak hours of a typical weekday.

EXISTING MERCY HOSPITAL TRIP GENERATION

Existing Mercy Hospital Site Trip Generation: Peak hour trip generation for the existing 242,000 square foot hospital is estimated based upon trip rates presented in the 10th edition of the Institute of Transportation Engineers’ (ITE) “TRIP GENERATION” publication. The following trip rates were used in that effort:

Land-Use Code #610 – Hospital

<i>AM Peak Hour of Street</i>	<i>= 0.89 trips/1,000sf GFA</i>
<i>PM Peak Hour of Street</i>	<i>= 0.97 trips/1,000sf GFA</i>
<i>AM Peak Hour of Generator</i>	<i>= 0.85 trips/1,000sf GFA</i>
<i>PM Peak Hour of Generator</i>	<i>= 0.97 trips/1,000sf GFA</i>

The existing Mercy Hospital campus, at full capacity; based upon the national published trip rates, generates approximately 215 trips in the weekday morning of the street and 235 trips in the weekday evening peak hour of the street; 206 trips in the weekday AM peak hour of the site and 235 trips during the same weekday PM peak hour of the site.

EXISTING SAFETY CONDITIONS

The Maine Department of Transportation’s (MaineDOT) Accident Records Section provided the latest three-year (2017 through 2019) crash data for the following street segments adjacent to the Mercy Hospital campus: State Street between Pine and Gray Streets; Winter Street between Pine and Gray Streets; Spring Street between State and Brackett Streets and Gray Street between State and Brackett Streets, combined a total distance of 0.75 miles.

Their report is presented as follows:

2017 -2019 Traffic Accident Summary

<u>Location</u>	<u>Total Crashes</u>	<u>Critical Rate Factor</u>
1. State Street @ Pine Street	9	1.66
2. State Street @ Spring Street	6	0.28
3. State Street @ Gray Street	6	1.27
4. Brackett Street @ Gray Street	2	1.46
5. Brackett Street @ Winter Street	4	22.71
6. Brackett Street @ Spring Street	2	0.66
7. Spring Street @ Winter Street	2	0.75
8. State Street btw. Pine Street and Spring Street	6	0.69

9. State Street btw. Spring Street and Gray Street	8	1.48
10. Gray Street btw. State Street and Winter Street	3	10.98
11. Gray Street btw. Winter Street and Brackett Street	1	59.05
12. Spring Street btw. State Street and Winter Street	2	0.48
13. Spring Street btw. Winter Street and Brackett Street	5	1.66
14. Winter Street btw. Gray Street and Spring Street	1	2.48
15. Winter Street btw. Spring Street and Pine Street	2	0.80

The MaineDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- **8 or more accidents**
- **A Critical Rate Factor greater than 1.00**

As highlighted in red, the State Street/Pine Street intersection meets both MaineDOT's criteria as a high crash location with a reported total of nine vehicle crashes and a corresponding critical rate factor of 1.66. Additionally, the street section of State Street located between Spring Street and Gray Street meets both criteria as a high crash location with a total of 8 reported crashes and a critical rate factor of 1.48.

MaineDOT's Safety Bureau prepared vehicle collision diagrams for both identified locations that illustratively present the details of each reported vehicle crash. A copy of MaineDOT's reports are attached for reference.

A summary of the accident reconstruction details is provided as follows for both locations:

Location #1: State Street @ Pine Street Five (5) of the nine reported crashes occurring within the intersection involve a pedestrian struck crossing the State Street approach of the intersection. Push-button activated rapid flashing beacons are present at the intersection aiding pedestrians crossing the State Street approach. The remaining four crashes reported at the intersection included; "*following too close*"; "*hit and run*" and "*failure to yield*" crashes.

Location #9: State Street between Spring Street and Gray Street MaineDOT's crash diagram does not identify a specific crash pattern occurring within the very short section of State Street. There was a total of two (2) "*OUT*" crashes; three (3) "*failure to keep in lane*" crashes; two (2) "*improper turn*" accidents and a single "*slippery road conditions*" crash.

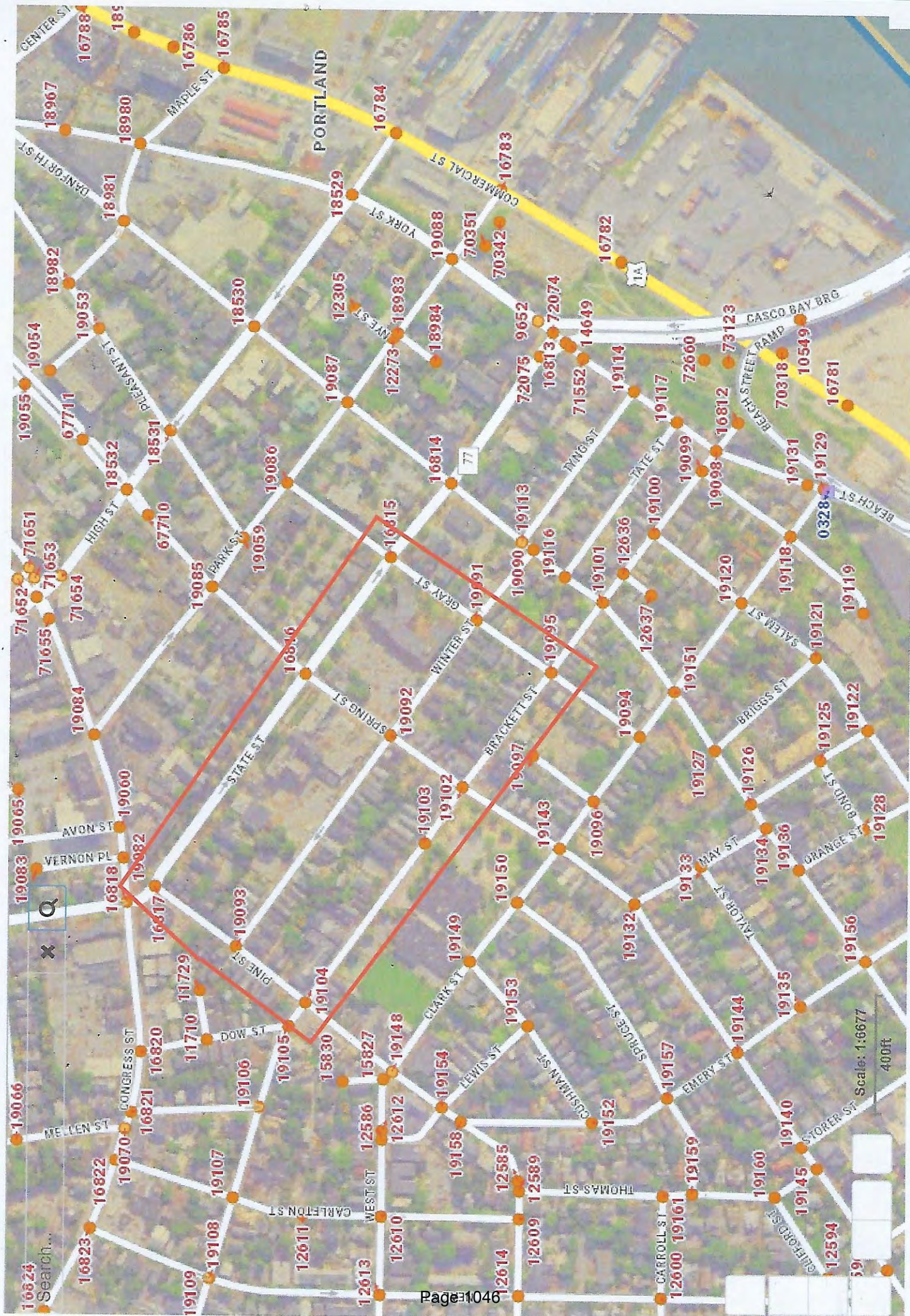
SUMMARY

1. The existing Mercy Hospital Campus, based upon national trip data, generates between 206 and 235 vehicle trips during each peak hour of a typical weekday. The lower volume of trips is expected in the morning hours of the day and the higher volumes are found in the early evening hours.
2. The proposed Mercy Hospital Redevelopment project, which includes 175 residential apartments, a medical clinic, self-storage facility and four commercial/retail development pads is predicted to generate a low of 67 to a high of 80 vehicle trips during the weekday peak travel periods.
3. Community Housing of Maine, a Portland based, non-profit affordable housing developer is proposing to construct a total of 99 affordable housing units on two out parcels located along the Winter Street frontage of the Mercy Hospital property. These affordable senior and family housing units are projected

to generate a high of 20 trips in the morning peak hour and slightly lower volumes (between 15 and 18 trips) during the remaining peak hour time periods.

4. Combined, the Mercy Hospital Redevelopment and Community Housing of Maine development projects are forecast to generate between a high of 96 vehicles trips in the morning peak hour to a slightly lower total of 85 trips in the evening peak hour of the street.
5. A finite number of residents, employees of the proposed commercial spaces and/or customers of those same spaces, located in the proposed Mercy Hospital Redevelopment and Community Housing of Maine development sites are classified as internal or shared trips; trips that do not leave the confines of the proposed development property. These multi-purpose trips, if not accounted for, overestimate the actual vehicular traffic impacts of the combined project site (*For example, an apartment resident purchasing their morning coffee at the proposed neighborhood coffee shop doing so by simply walking from their apartment to the proposed coffee shop.*). The National Cooperative Highway Research Program's (NCHRP) 684 Internal Trip Capture Estimation Tool predicts trip capture rates between 7 and 15% will likely occur within the combined development sites. An average of the predicted capture rates was applied, which shows a result of approximately 10 fewer peak hour trips will impact the street system.
6. The proposed Mercy Hospital Redevelopment and Community Housing of Maine development projects; combined, after deducting the internal capture trip estimates are expected to generate approximately 76 to 86 vehicle trips during the critical weekday peak hours that impact the local transportation system. These trip forecasts represent a net reduction of more than 100 peak hour trips when compared to the present peak hour trip generation of Mercy Hospital.
7. The Maine Department of Transportation's (MaineDOT) Accident Records Section provided the latest three-year (2017 through 2019) crash data for the following street segments adjacent to the Mercy Hospital campus: State Street between Pine and Gray Streets; Winter Street between Pine and Gray Streets; Spring Street between State and Brackett Streets and Gray Street between State and Brackett Streets - combined a total distance of 0.75 miles. Their safety report identified the section of State Street between Spring and Gray Streets as a high crash location, with a total of eight reported vehicle crashes and a corresponding critical rate factor of 1.48. A detailed vehicle collision diagram prepared by the MaineDOT Safety office shows the reported vehicle crashes occur somewhat randomly within the very short road segment. Four different crash types were identified that included: two (2) "OUT" crashes; three (3) "failure to keep in lane" crashes; two (2) "improper turn" accidents and a single "slippery road condition" crash. The second-high crash location highlighted by MaineDOT was the intersection of State Street and Pine Street, where a total of nine crashes were reported with a critical rate factor 1.66. The MaineDOT collision diagram for this location clearly shows a crash pattern at the intersection. Five (5) of the nine total crashes involved a motor vehicle striking a pedestrian crossing in the State Street crosswalk. Traffic Solutions conducted an inspection of the intersection and found that the "rapid rectangular flashing beacon" system that assists pedestrians in crossing the State Street approach is not working correctly. The flashing beacon on the northside of State Street has been disconnected and when the pedestrian push button is activated the flashing beacon on this side of the intersection is blank. It is recommended that the inoperative beacon be repaired as soon as practical.





Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS
☒ Crash Summary I ☐ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary
REPORT DESCRIPTION

Portland: State St (nodes 16817-16815), Gray St (nodes 19095-16815), Spring St (nodes 19102-16816), and Winter St (nodes 19091-19093)

REPORT PARAMETERSYear 2017, Start Month 1 through Year 2019 End Month: 12 *State St. Btw. Pine and Gray*

Route: 0077X

Start Node: 16817
End Node: 16815Start Offset: 0
End Offset: 0☐ Exclude First Node
☐ Exclude Last Node

Route: 0560331

Start Node: 19095 *Gray St. Btw. Brackett and State*
End Node: 16815Start Offset: 0
End Offset: 0☐ Exclude First Node
☒ Exclude Last Node

Route: 0560672

Start Node: 19102 *Spring St. Btw. Brackett and State*
End Node: 16816Start Offset: 0
End Offset: 0☐ Exclude First Node
☒ Exclude Last Node

Route: 0560803

Start Node: 19091 *Winter Street Btw. Gray & Spring*
End Node: 19092Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0560803

Start Node: 19092 *Winter Blvd Btw. Spring & Pine*
End Node: 19093Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	Section U/R	Total Crashes	K	Injury Crashes			PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
16816	16817	3130489	0 - 0.16	0077X - 0.32 ST RTE 77	0.16	2	6	0	0	0	0	6	0.0	0.00599	334.11	478.41	0.00
16815	16816	192499	0 - 0.09	0077X - 0.48 ST RTE 77	0.09	2	8	0	1	0	1	6	25.0	0.00322	828.08	558.28	1.48
19091	19095	194803	0 - 0.06	0560331 - 0.07 RD INV 05 60331	0.06	2	1	0	0	0	0	1	0.0	0.00003	11798.99	199.82	59.05
16815	19091	5080298	0 - 0.07	0560331 - 0.13 RD INV 05 60331	0.07	2	3	0	0	0	0	1	0.0	0.00006	16797.83	1530.55	10.98
19092	19102	194805	0 - 0.05	0560672 - 0.49 RD INV 05 60672	0.05	2	5	0	0	0	0	5	0.0	0.00079	2118.40	1278.67	1.66
16816	19092	192504	0 - 0.07	0560672 - 0.54 RD INV 05 60672	0.07	2	2	0	0	0	0	2	0.0	0.00123	541.34	1138.90	0.00
19091	19092	194802	0 - 0.09	0560803 - 0.06 RD INV 05 60803	0.09	2	1	0	0	0	0	0	0.0	0.00008	4227.97	1702.89	2.48
19092	19093	5080269	0 - 0.16	0560803 - 0.15 RD INV 05 60803	0.16	2	2	0	0	0	0	2	0.0	0.00061	1091.35	1363.00	0.00
Study Years: 3.00					Section Totals:	0.75	28	0	1	0	1	23	7.1	0.01200	777.65	472.79	1.64
Grand Totals:					0.75		59	0	1	3	6	46	16.9	0.01200	1638.61	623.27	2.63

Crash Summary I

Nodes																
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			A	B	C	PD	Percent Annual M Injury Ent-Veh	Crash Rate	Critical Rate	CRF
16817	0077X - 0.32	Int of PINE ST STATE ST	2	9	0	0	0	0	0	2	7	22.2	4.460	0.67	0.40	1.66
													Statewide Crash Rate:	0.16		
16816	0077X - 0.48	Int of SPRING ST, STATE ST	9	6	0	0	0	1	1	1	4	33.3	5.528	0.36	1.27	0.00
													Statewide Crash Rate:	0.75		
16815	0077X - 0.57	Int of GRAY ST STATE ST	2	6	0	0	0	2	0	4	4	33.3	3.729	0.54	0.42	1.27
													Statewide Crash Rate:	0.16		
19095	0560331 - 0.07	Int of BRACKETT ST GRAY ST	2	2	0	0	0	0	1	1	1	50.0	0.729	0.91	0.63	1.46
													Statewide Crash Rate:	0.16		
19091	0560331 - 0.13	Int of GRAY ST WINTER ST	2	4	0	0	0	0	1	3	25.0	0.120	11.10	0.49	0.16	22.71
													Statewide Crash Rate:	0.16		
19102	0560672 - 0.49	Int of BRACKETT ST SPRING ST	2	2	0	0	0	0	0	2	2	0.0	2.036	0.33	0.50	0.00
													Statewide Crash Rate:	0.16		
19092	0560672 - 0.54	Int of SPRING ST WINTER ST	2	2	0	0	0	0	0	2	2	0.0	1.754	0.38	0.51	0.00
													Statewide Crash Rate:	0.16		
Study Years: 3.00			NODE TOTALS:													
				31	0	0	0	0	3	5	23	25.8	18.356	0.56	0.53	1.06

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: CUMBERLAND

TOWN: PORTLAND

LOW NODE: 16815 HIGH NODE: 16816

REGION: 1

U/R: URBAN

DESCRIPTION: State St from Gray St to Spring St

RTE # / RD #: 0077X

DATE DRAWN: 6/19/2020 DRAWN BY: BOB K

STUDY FROM: 1/1/2017

STUDY TO: 12/31/2019

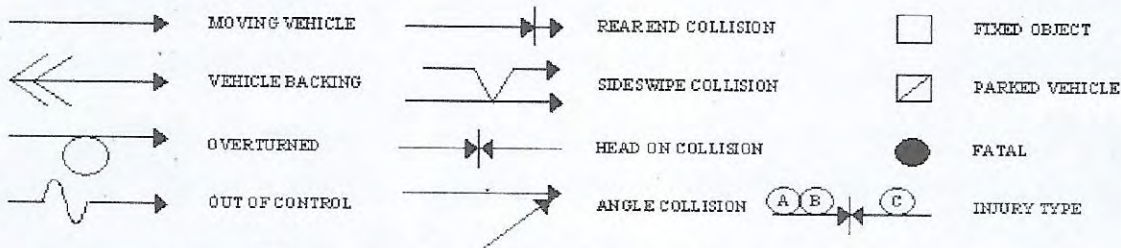
CRASH RATE: 828.08

CRF: 1.48

% INJURY: 25

TOTAL CRASHES: 8

LEGEND



PATH OF: P PEDESTRIAN B BICYCLE A ANIMAL S SLED

PAVEMENT: D - DRY, I - ICY, W - WET, S - SNOW

WEATHER: C - CLEAR, F - FOG, R - RAIN, SL - SLEET, S - SNOW, CL - CLOUDY

TIME: A - AM, P - PM

Portland

Link: 16815-16816

Element: 192499

Study Period: 2017-2019

of Crashes: 8 / CRF: 1.48

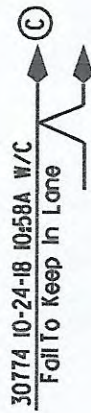
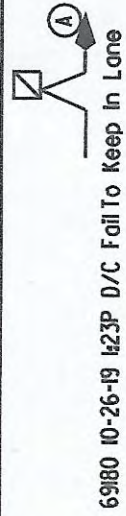
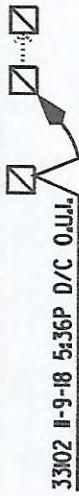
Prepared by Office of Safety

RFK3 6-19-20

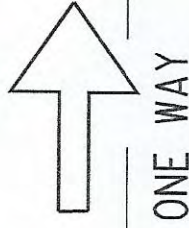


16816

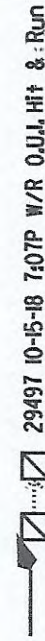
16815



9109 3-19-18 11:31A D/C Fail To Keep In Lane



State Street (Route 77)



2497 1-20-17 12:50P SL/C Road Conditions

19547 7-1-17 10:10A D/C Improper Turn

1085 1-7-18 3:16P SL/C Improper Turn



H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: CUMBERLAND

TOWN: PORTLAND

LOW NODE: 16817 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Int of Pine St and State St

RTE # / RD #: 0077X

DATE DRAWN: 6/1/2020 DRAWN BY: BOB K

STUDY FROM: 1/1/2017

STUDY TO: 12/31/2019

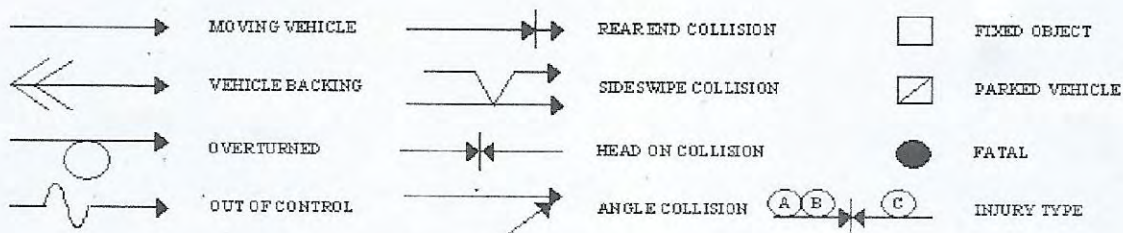
CRASH RATE: 0.67

CRF: 1.66

% INJURY: 22.2

TOTAL CRASHES: 9

LEGEND



PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

PAVEMENT: D - DRY, I - ICY, W - WET, S - SNOW

WEATHER: C - CLEAR, F - FOG, R - RAIN, SL - SLEET, S - SNOW, CL - CLOUDY

TIME: A - AM, P - PM

ONE WAY



State St
Rt 77

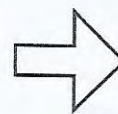
11013 4-5-18 6:59P D/C Follow Too Close (C)
6627 2-21-17 8:40A D/C Follow Too Close (P)
15348 5-21-17 4:00P D/C Follow Too Close (P)
31073 10-18-17 5:05P D/C Fail To Yield (P)
73185 11-25-19 12:50P D/C Follow too close (P)

63283 8-22-19 6:00P D/C Fail to keep in lane

22397 7-28-17 12:48P D/C Fail To Yield
25790 8-24-17 9:00A D/C Follow Too Close
228 1-3-17 12:55P W/CL Hit & Run (C)



ONE WAY



Portland
Node: 16817

Study Period: 2017-2019
of Crashes: 9 / CRF: 1.66

Prepared by Office of Safety
RFK3 6-1-20

Pine St

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Mercy Hospital Re-Development			Organization:	Traffic Solutions
Project Location:	Portland, ME			Performed By:	MMI
Scenario Description:	AM Peak Hour			Date:	8/31/2020
Analysis Year:	2020			Checked By:	
Analysis Period:	AM Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	712, 630	4,636	SF	16	13	3
Retail	814	1,635	SF	5	3	2
Restaurant	936 (*local)	1,059	SF	16	8	8
Cinema/Entertainment				0		
Residential	221	266	DU	53	6	47
Hotel				0		
All Other Land Uses ²	918, 151	41,857	SF	6	4	2
Total				96	34	62

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail	1			0	0	0
Restaurant	2	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	2	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	96	34	62
Internal Capture Percentage	15%	21%	11%
External Vehicle-Trips ³	82	27	55
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	23%	67%
Retail	33%	50%
Restaurant	38%	25%
Cinema/Entertainment	N/A	N/A
Residential	0%	4%
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	Mercy Hospital Re-Development
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	13	13	1.00	3	3
Retail	1.00	3	3	1.00	2	2
Restaurant	1.00	8	8	1.00	8	8
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	6	6	1.00	47	47
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	2	0	0	0
Retail	1		0	0	0	0
Restaurant	2	1		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	9	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	2	0	0	0
Retail	1		4	0	0	0
Restaurant	2	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	2	0		0
Hotel	0	0	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	3	10	13	10	0	0
Retail	1	2	3	2	0	0
Restaurant	3	5	8	5	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	6	6	6	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	4	4	4	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	2	1	3	1	0	0
Retail	1	1	2	1	0	0
Restaurant	2	6	8	6	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	45	47	45	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	2	2	2	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Mercy Hospital Re-Development			Organization:	Traffic Solutions
Project Location:	Portland, ME			Performed By:	MMI
Scenario Description:	PM Peak Hour			Date:	8/31/2020
Analysis Year:	2020			Checked By:	
Analysis Period:	PM Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	712, 630	4,636	SF	15	5	10
Retail	814	1,635	SF	11	6	5
Restaurant	936 (*local)	1,059	SF	0		
Cinema/Entertainment				0		
Residential	221	266	DU	48	35	13
Hotel				0		
All Other Land Uses ²	918, 151	41,857	SF	9	3	6
Total				83	49	34

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	83	49	34
Internal Capture Percentage	7%	6%	9%
External Vehicle-Trips ³	77	46	31
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	20%	0%
Retail	17%	20%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	3%	15%
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	Mercy Hospital Re-Development
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	5	5	1.00	10	10
Retail	1.00	6	6	1.00	5	5
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	35	35	1.00	13	13
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	0	0
Retail	0		1	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	5	3	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	1	0
Retail	2		0	0	16	0
Restaurant	2	3		0	6	0
Cinema/Entertainment	0	0	0		1	0
Residential	3	1	0	0		0
Hotel	0	0	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	1	4	5	4	0	0
Retail	1	5	6	5	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	34	35	34	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	3	3	3	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	10	10	10	0	0
Retail	1	4	5	4	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	11	13	11	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	6	6	6	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

April 12, 2021

Planning & Urban Development Dept.
Att: Caitlin Cameron
Urban Designer
389 Congress St, Ste. 400
Portland, Maine 04101

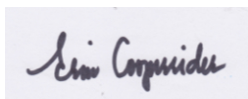
Re: 148 State Street Site Plan Application

Dear Caitlin,

Shared use parking is an important Traffic Demand Management (TDM) strategy that will be employed by NewHeight Redfern LLC on the redeveloped parcel now occupied by Mercy Hospital. The parking management plan will maximize use of the tandem parking spaces near the loading dock located adjacent to the building. On-site, full-time management will schedule trash pick-ups and deliveries between the hours of 6 a.m. and 6 p.m. The self-storage component of the property will use the tandem spaces for drop off and pick up generally between the hours of 6 a.m. and 6 p.m. also, scheduled around trash pick ups, and other regularly scheduled daytime activities. Residential tenants will have use of the spaces between 6 p.m. and 6 a.m.

The Traffic Demand Management Coordinator for the campus will assign use of the tandem parking spaces with the intent to pair residential tenants who drive to off-peninsula locations and leave early in the morning with these spaces, coordinating with the tenants to stagger arrival and departure times to ensure efficient circulation in this area. Unbundled parking, leased separately from the units, is also an important TDM strategy and a part of the plan for the property. Successful management of these and all parking spaces that are a part of the property is in the best interest of the neighborhood and the property owner and an important part of this urban residential development.

Sincerely,



Erin Cooperrider
Manager, NewHeight Redfern



Jonathan Culley
Manager, NewHeight Redfern



Mercy Hospital Redevelopment Transportation Demand Management (TDM) Plan

November 10, 2020

Summary

NewHeight Redfern, LLC provides this Transportation Demand Management (TDM) Plan for the Mercy Hospital Redevelopment, encompassing most of the southern half of the block bordered by State, Spring and Winter Streets in the R6 zone of Portland's West End - with a pending zoning change application for appropriate redesignation of the parcel as B3. The redevelopment proposal is for NewHeight Redfern to do a mixed-use conversion of the main Mercy Hospital building at 120 State Street for residential and commercial/retail uses, to create additional housing at the adjoining Morrison House at 148 State Street.

Site Uses Overview

- *Residential* - 175 total proposed dwelling units (95,667 total sf), housing approximately 228 total residents at 120 State Street (the main Mercy building – 167 units) and 148 State Street (Morrison House – 8 units); 157 market rate and 18 deed-restricted workforce housing apartments. These consist of 37 studios, 136 one-bedroom and 2 two-bedroom units. In the main building these units are on the ground through sixth floors and additional residential uses include indoor and outdoor common areas, co-working space, and gym.
- *Health clinic* - 3,850 sf on ground floor
- *Commercial/retail* - 4 spaces on 1st floor: 8,000 total sf. Proposed uses are: coffee shop (1059 sf), variety store (1635 sf), office space (787 sf), and hair salon (648 sf).
- *Self-Storage facility* - 41,210 sf on basement and ground floors
- *Parking*: 68 surface parking spaces

TDM Plan & Targets

This project is another key opportunity for urban infill and redevelopment on the Portland Peninsula, new housing for local workers and families, and alternate transportation and reverse commuting options for residents. *Of significant note, the new uses at the Mercy Hospital Redevelopment will result in an approximately 63% reduction in vehicle trips to and from the site, compared with the existing hospital uses.* The site's TDM Plan works further to reduce parking demand, encourage multimodal trips to and from the site and benefit the local transportation system. This includes marketing the housing to Peninsula employees; providing leases exclusive of parking; offering on-site amenities; and supporting transportation alternatives such as walking, bicycling and using public transportation.

The plan sets the following TDM targets for 3 years after the Mercy Hospital Redevelopment is fully occupied. These targets will be reassessed after the first full year of occupancy of all tenant spaces:

- 10% reduction in peak hour vehicle trips and 10% reduction in parking demand for the site
- 65% resident and employee multimodal rate

COVID-19 NOTE: Site occupancy is forecast for 2023 and with an anticipated vaccine for the COVID-19 virus available sometime within approximately the next 12-18 months, transportation alternatives that are currently less viable - such as transit and carpooling - are anticipated to make significant recoveries by that time. Current COVID-related parking demand increases, to enable drive alone options, are also expected to decline. In addition, TDM efforts will likely be supported by a long-term overall increase in telework and walkable access to the largest number of jobs in the state.

Interim Site TDM Coordinator:

Emily McConnell
NewHeight Redfern
emily@newheightgroup.com
(207) 323-2333

TDM Table of Contents

A. Property Description & Transportation Context	2
B. Mercy Hospital Redevelopment TDM Coordination	16
C. Trip Generation & Parking Demand Projections & Targets	17
D. Trip and Parking Reduction Strategies	20
E. Plan for Monitoring, Data Collection and Reporting	23

Cushman Transportation Consulting, LLC, 94 Beckett Street, 2nd Floor, Portland, ME 04101
Tel: (207) 200-1910 E-mail: sarah@sarahcushman.com www.sarahcushman.com



A. Property Description & Transportation Context

The Mercy Hospital Redevelopment is a 2.48-acre parcel encompassing most of the southern half of the block bordered by State, Spring and Winter Streets in the R6 zone of Portland's West End Neighborhood. After 80 years of community service as the original Mercy Hospital in Portland, the mixed-use site will continue to offer a medical clinic open to the general public, while also providing robust residential housing and small retail amenities.

The development team has a pending zone change application for B3 designation of the site, which fits in well with the uses identified by the City and included in the recent ReCode effort (October 2020 draft):

B-3 & B-3b	To maintain and enhance the role of the downtown as the business and commercial center of the region; to enhance and promote the orderly expansion of retail and service businesses downtown, satisfying the related needs of the city's resident, working, and visitor populations; to encourage increased housing opportunity downtown for a diverse residential population; to enhance the pedestrian environment through the encouragement of intensive mixed-use activities, through the enhancement and maintenance of public and private open space, and through the enlivenment and increased attractiveness of the street environment; to encourage excellence in urban design; to preserve and capitalize on the unique character and historic fabric of the downtown through the encouragement of reuse of significant existing structures; to provide opportunity for an enhanced presence and integration of the arts and cultural activities; to reinforce the role of the downtown as a meeting place for community residents and visitors alike from all walks of life and all socio- economic groups; to provide adequate parking and transportation facilities which promote accessibility, enhance and encourage development opportunity, and enhance and protect the pedestrian environment; In the Pedestrian Activities District (PAD) Overlay Zone, to create continuity of pedestrian-oriented uses along streets where such uses predominate and along streets which, over time, will establish and maintain a strong retail and pedestrian-oriented use pattern; and to provide for the relocation of residents who are displaced by development.
-----------------------	--

The site redevelopment of the Spring Street frontage will improve the human scale of the pedestrian environment through a more active building facade, entrance, signage, lighting, trees and landscaping. The location has a Compact Neighborhood Score of 9.3 out of 10. This scoring is based on a natural logarithm of household density, provided through the Housing + Transportation Affordability Index using U.S. Census data.





Residential Housing at the Mercy Hospital Redevelopment

Infill development of any kind contributes to single-occupancy automobile trip reduction. That much more in the case of in-town housing, which is the primary use proposed for the Mercy Hospital Redevelopment. As noted in the Summary above, the new uses at the Mercy Hospital Redevelopment will result in approximately a 63% reduction in vehicle trips to and from the site, compared with the trip rate for the existing hospital uses at full capacity.

Behavioral research illuminates one of the reasons for this further. When people move from an individual residence to another, this provides a key opportunity and critical juncture at which to help them understand their transportation choices and the benefits of alternate transportation. Individuals are more receptive to this information as their daily living and commute patterns have changed with relocation (Kirkman, 2019; Thøgersen, 2012; Verplanken, Walker, Davis & Jurasek, 2008; Bamberg, 2006; Fujii, Gärling & Kitamura, 2001).

In addition, new residential sites like the Mercy redevelopment provide real opportunity to help meet the City's goals for population growth. In *Portland's Plan 2030* (2017 Comprehensive Plan), analysis showed the number of people both living and working in the city decreased between 2002 and 2014. According

...One of the more interesting studies found in reviewing the literature was a 2003 German social science experiment conducted by three researchers (Bamberg, Rolle and Weber) where an individualized marketing intervention was used at a time of what they called a "changed decision" context, meaning immediately after relocation. The research found that if, when in a new situation, people received personally relevant and persuasive information, they were more likely to use it for making new behavioral decisions.

Portland Oregon SmartTrips Welcome Program, Tools of Change Landmark Case Study, 2012



to the *City of Portland Parking Study for the Eastern Waterfront & Downtown* (2017), just 12% of people live and also work in the study area – which is immediately adjacent to the Mercy Hospital Redevelopment. The Comprehensive Plan “supports the principle that all who work in Portland should have the option of living in Portland.” The City set a 10-year population goal of 75% of the municipality’s approximate daytime population of 96,000.

One hundred seventy-five (175) total residential units are proposed for the Mercy site. These include:

- 120 State Street (the main Mercy building – 167 units)
- 148 State Street (Morrison House – 8 units): 157 market rate and 18 deed-restricted workforce housing apartments. These consist of 37 studios, 136 one-bedroom and 2 two-bedroom units. In the main building these units will be on the ground through sixth floors.

As members of the development team, Newheight Redfern will retain ownership and management of 120 and 148 State Street and the parking areas.

Significant on-site and near-site amenities provide residents with a full-service living environment. People in residential settings often perceive they are dependent upon driving alone because of the number of errands and activities they must carry out in different locations. The Mercy Redevelopment will reduce this dependence through building facilities and proximity to services close to the site.

On-site features that encourage alternate transportation and discourage drive alone vehicle trips include:

- indoor bicycle, stroller, carseat, handcart storage area
- package delivery and storage location
- hardwired infrastructure for broadband and wireless internet
- communal gathering spaces, including those that can be used to do telework
- outdoor courtyard
- fitness room and rooftop deck at 120 State





Commercial and Small Retail Uses on Site

Mercy Hospital will be continuing to lease and manage a clinic with twelve employees, open to the public at 120 State Street. This will provide residents with highly accessible general healthcare services.

In addition, the main building will house a self-storage business on the basement and ground floors, with portions devoted to the housing uses on site.

NewHeight Redfern is also creating four small retail spaces at 120 State Street with easy access from the courtyard area for the public and all site residents. Potential leases for these individual spaces are:

- neighborhood coffee shop
- small grocer/variety store
- professional office space
- hair salon

Health care and self-storage visits and even short grocery runs are often taken by personal vehicle, so these site amenities will reduce drive alone trips as well.

Parking

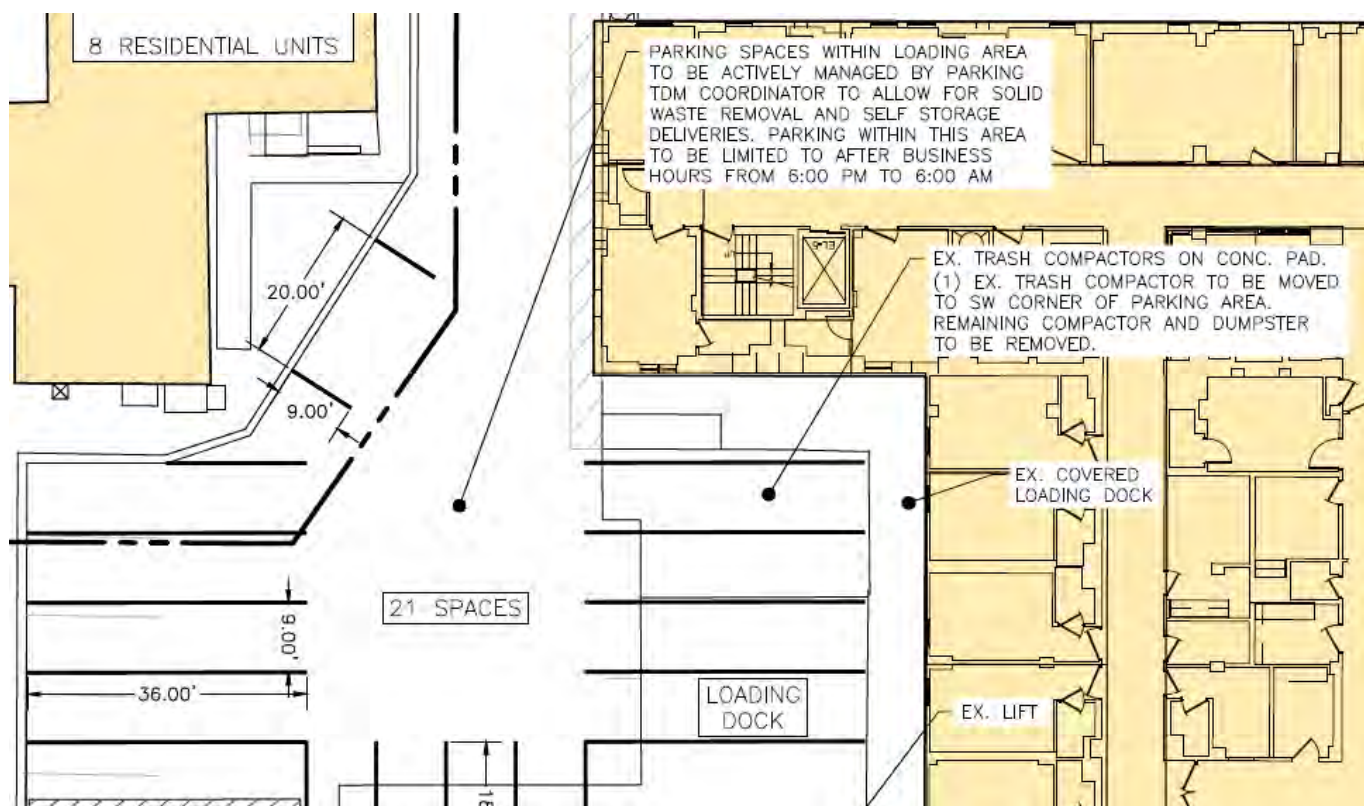
In strong support of site TDM efforts, residential and retail leases at the Mercy Hospital Redevelopment will be exclusive of parking. Parking that is unsubsidized, rented at competitive market rates, and unbundled from tenant leases is of tremendous benefit and a linchpin strategy to discourage drive alone trips and encourage the use of alternate transportation.



Per the site development agreement, the project proposes to build and maintain 68 surface parking spaces, centrally located and with access off of Spring Street. Based on the Mercy Hospital Redevelopment's parking demand analysis (further detailed in Section C) and the City land use code Section 14-332 (c), the minimum amount of required parking for the site is determined by the developer's parking assessment and the recommendation of the city transportation engineer.

Parking that is shared-use also expands its efficiency and is another important TDM strategy. Thus, the site intends maximize its parking resources by sharing 16 of the spaces between daytime and evening uses; e.g., for daytime solid waste removal and self-storage deliveries, and with residential tenants accessing them for overnight use. Another 15 spaces will be leased to the clinic for visitor and employee use. Parking within this area will specifically leased to residents for after business hours, from 6:00pm to 6:00am.

Parking will be managed by NewHeight Redfern's TDM Coordinator, who will actively valet these tandem-use spaces on site and all spaces within the loading dock area. The company will also explore the possible longer-term management of the Mercy Hospital Redevelopment's parking through Unified Parking Partners (UPP); UPP could likely expand this parking resource's most strategic and effective use.





Occupant Demographics

The development team anticipates the Mercy Hospital Redevelopment will attract an economically and age-diverse group of tenants interested in a highly-walkable, low-car-use lifestyle. This will include singles, couples, and families - with an expected average of 1.3 persons per unit for the market and workforce housing portions of the site. Residents are likely to range from Generation Z and Millennial tenants (young professionals and students under age 40) to mid-career professionals, empty-nesters; and individuals who are retired. As stated in *Portland's Plan*, "Millennials (20-29) and Gen Xers (30-39) comprise the largest share of Portland's population, while Baby Boomers (50-69) are the fastest growing age group."

Working tenants will include people working on the Peninsula, to avoid the increased highway traffic coming into the City. Downtown Portland is the largest employment center in the state and the Mercy redevelopment has an excellent Job Access Score of 9.4 out of 10. This is based on employment location and the variety of employment types, similarly provided through the Housing + Transportation Affordability Index (H+T Index) utilizing census data.

For residents who are students, post-secondary education opportunities such as the Maine College of Art, the University of Southern Maine, Portland Adult Education, and Southern Maine Community College are readily accessible from the site on foot, by bicycle and via public transportation.



From an equity standpoint, the site also has an enviable H+T Index rate of 34%; that is, housing (18%) and transportation (16%) costs combined are 34% of household income. Housing by itself is considered affordable if it totals 30% or less of income. Housing and Transportation Affordability (HTA) is considered to be combined housing and transportation costs equaling 45% or less of income. For comparison, the average Cumberland County household spends 52% of income on housing and transportation and the average Maine household spends 58% - both of which are well over what is considered within one's means.

Often lower transportation costs at sites like the Mercy Hospital Redevelopment are because people don't need to own as many (or any) private vehicles; that is, vehicle ownership rates are lower for people who live in urban centers. Tables 9 and 10 below from the census data analysis in the 2017 Downtown parking study, show that workers who live in the Downtown and Eastern Waterfront study area (as stated above, directly adjacent to the Mercy Hospital Redevelopment) and commute to all jobs – including anywhere in the region:

- Own far fewer vehicles: 0.7 per household - vs. 1.34 in the city and 1.79 in the region;
- Drive alone considerably less: 40.6% in the study area - vs. 67.4% in the city and 78.3% in the region;
- Use alternate modes of transportation and/or telecommute significantly more: 59.4% in the study area vs. 32.8% in the city and 21.9% in the region.

Table 9: Commute Mode Share Trends by Home Origin

	Commuter Home Origin	Drive Alone	Carpool	Transit	Bicycle	Walked	Work from Home & Other
2015	Portland-South Portland-Biddeford MSA	78.3%	9.3%	1.1%	0.6%	3.9%	7.0%
	City of Portland	67.4%	8.6%	3.1%	1.6%	12.2%	7.3%
	On the Peninsula	49.2%	6.9%	4.7%	2.8%	28.6%	7.9%
	Within the Study Area	40.6%	10.2%	3.5%	0%	42.5%	3.2%

Table 10: Auto Ownership 2000-2015

	Home Location	Vehicles	Occupied Households	Veh/HH
2015	Total U.S.	205,767,452	116,926,305	1.76
	Portland-South Portland-Biddeford MSA	383,798	214,667	1.79
	City of Portland	40,495	30,119	1.34
	On the Peninsula	11,611	11,917	0.97
	Within the Study Area	1,206	1,729	0.70





Similarly, *Portland's Plan* found:

[T]he percentage of people who drive alone to work on the peninsula is as low as 36%, while the percentage of people who walk to work is in the 30% - 40% range, the percentage of people who bike to work is in the 4% - 9% range, and the percentage of people who take public transportation to work is in the 7% - 13% range. Off the peninsula, these figures shift dramatically to reflect a higher reliance on single-occupancy vehicles for commuting purposes.

Per U.S. Census data, Generation Z and Millennials have been shown to prefer urban environments; they also tend to be more comfortable using modes other than the single-occupancy automobile for transportation. These multimodal habits were heavily influenced by the Great Recession and driving by these generations has increased slowly as the economy improved. (It is currently being impacted once again by the COVID-19 pandemic – which is negatively impacting bus and carpool rates; although it is positively impacting the number of people who walk and bicycle.) Overall, from a behavior change perspective, this familiarity with different ways of getting around will greatly facilitate these tenants' and site employees' participation in the Mercy Hospital Redevelopment TDM program.

Regarding senior resident demographics and vehicle travel, the percentage of the population that drives plateaus for the general public through the ages of 30-55 - and then starts declining after the age of 55 for women and after age 60 for men. Similarly, vehicle miles and person miles traveled per capita both fall precipitously starting at the age of 55. Car ownership has had a slight rebound since the Great Recession. However, between 2015 and 2016, the one increase in car-free living (above the margin of error) was among householders age 65 or older who rent. (Source: American Community Survey of the U.S. Census).

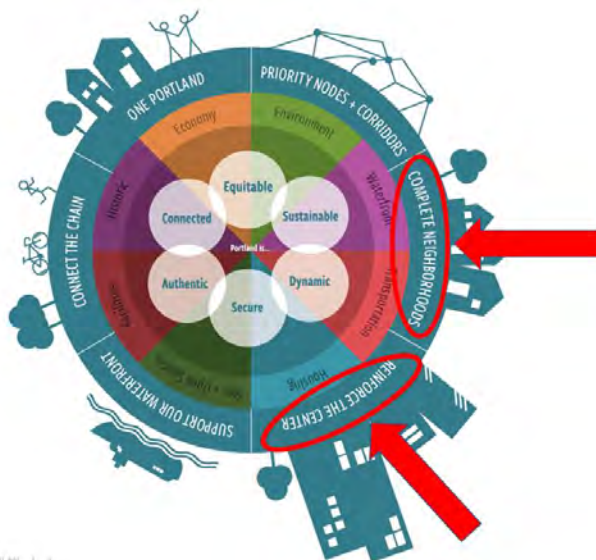


For site residents working off the Peninsula, who may commute by single occupancy vehicle, there is also a reverse commute phenomenon. This change in the directionality of trips creates a more balanced inbound-outbound flow of vehicular traffic during the morning and evening peak travel hours.

Larger Transportation Setting

The Mercy Hospital Redevelopment and its TDM initiatives bring to fruition of number of the mixed-use, Peninsula neighborhood, housing, urban form, and transportation demand management goals of several recent and historically important Portland studies and plans. Included among them are:

- *A Time of Change: Portland Transportation Plan* (1993)
- *Green Spaces Blue Edges* (2001)
- *Housing, Sustaining Portland's Future* (2002)
- *Portland Peninsula Transit Study* (2008)
- *Sustainable Portland* (2009)
- *City of Portland Parking Study for the Eastern Waterfront & Downtown* (2017)
- *Comprehensive Plan, Portland's Plan 2030* (2017)
- *Cultural Plan Update* (2018)



Portland's Plan 2030 (2017 Comprehensive Plan)

For example, redevelopment of this site in the center of Portland addresses the land use diversity, housing, and downtown-strengthening outlined in *Portland's Plan* (2017) – described further as Complete Neighborhoods and Reinforce the Center.

The Mercy Hospital Redevelopment's TDM efforts align well with additional observations from the Downtown parking study - for instance, regarding reducing the need for parking on the Peninsula:



LOCAL GOALS

WE WILL:

Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.

Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.

Pursue policies to enable people who work in Portland to have the option to live in Portland.

Collaborate with surrounding communities on regional housing solutions.

Encourage quality, sustainable design in new housing development.



If future residential development in the study area were to attract a higher percentage of residents who also work in the study area, and do not use their vehicle to commute to work, this would raise the internal capture rate for office parking demand. An internally captured office trip does not need an additional office parking space because the resident employee leaves their vehicle at home. In this way, a single parking space would serve either a residential purpose or an office purpose depending on the time of day. It would help lower parking demand to promote or incentivize the occupancy of new residential development with employees (of any kind) who also work in the study area.



Bicycle & Pedestrian Access

From a pedestrian and bicycling perspective, the Mercy Hospital Redevelopment is very friendly, located within the strong sidewalk network and lower-speed street grid of the Peninsula. In addition, the property is just two blocks from the Pedestrian Activities District Overlay Zone, the Portland Downtown and Arts Districts, the Downtown Entertainment Overlay Zone and the Congress Street Historic District.

From the perspective of residents with any mobility concerns, sidewalks on nearby Pine, Brackett, Spring, Clark and Danforth - and all streets to the east of State Street, throughout Downtown - are maintained year-round by the City and the Portland Downtown district, including the removal of snow and ice during the winter months.

The Mercy redevelopment also sits in close proximity to the following bicycle and pedestrian facilities:

- Casco Bay Bridge bicycle lanes and separated pedestrian facility that permits shared use with bicycles
- Protected bicycle lanes on Park Avenue
- Deering and Forest Avenue bike lanes
- Fore River Parkway Trail
- Several proposed West End sections of the Neighborhood Byway network.



These are all pivotal links in Portland's alternate transportation system.



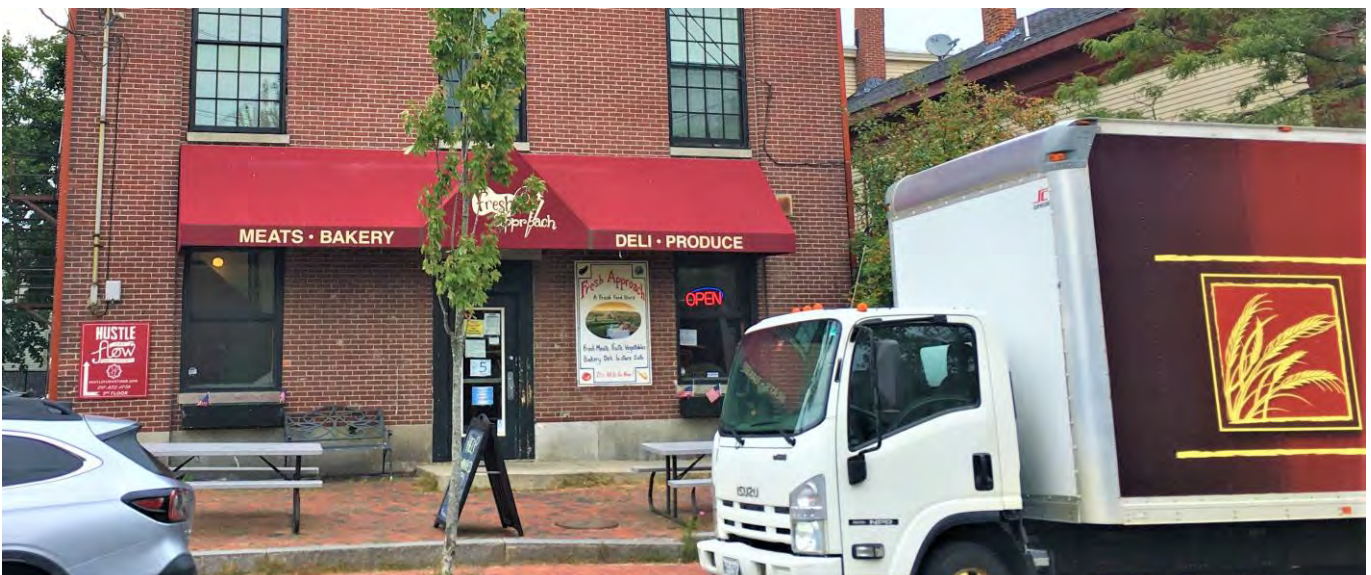


Moreover, the site is just three blocks from Gorham Bike & Ski, which offers bicycle rentals and provides maintenance services for bicycle commuters.

Residential tenants at the Mercy redevelopment who work anywhere on the Peninsula will be within comfortable walking distance of their home. The reverse is also the case for 1st Floor clinic and retail employees - and any site visitors - who live on the West End, Parkside, Bayside, Downtown or East End. Those residents whose employers are located within a five-mile commute distance can also easily bike to work, especially as bicycle networks in Portland, South Portland, Westbrook and Falmouth continue to improve.

Significant near-site amenities and recreational facilities also provide people with a full-service living and working environment. These abound within easy walking distance of the Mercy Hospital Redevelopment for residential tenants, retail employees and site visitors. They include:

- Neighborhood markets such as Rosemont and Fresh Approach; the Portland Farmer's Market; and home product suppliers such as Reny's
- Services such as the U.S. Post Office at 622 Congress, Walgreen's Pharmacy, Enterprise Car Rental, and the Portland Public Library





- Recreational spaces and gardens such as the Reiche Elementary School playground, basketball court and field; the Reiche Community Center Pool; Congress Square Park; McIntyre Park; Clark Street Community Garden, Harbor View Memorial Park; Deering Oaks Park; Western Cemetery; and Western Promenade Park
- Food and entertainment venues, such as many neighborhood and Congress Street restaurants and cafes, the State Theatre, programming at Congress Square Park, and the Portland Museum of Art

These nearby offerings also provide an attractive dual-purpose trip for the project's retail employees and Mercy redevelopment visitors who do end up driving to the site. For example, walking to run errands at neighboring businesses or meeting up with family and friends for after-hours events nearby. In addition, these internally captured trips represent no net new trip generation or parking demand beyond the original trip to the site.





Public Transportation Access

In terms of transit service, the Mercy Hospital Redevelopment is well-located for site residents, employees and visitors:

- Two blocks from Congress Street METRO stops with access to the primary Peninsula Route 1 and the important off-Peninsula bidirectional Route 9A and 9B. In addition, these two routes are timed to provide service every 15 minutes along the Congress Street corridor from the West End to the East End.
- One block from the METRO Route 8 with service to various Peninsula destinations
- Three blocks to access the South Portland Bus Service Routes 21, 24A and 24B
- 7-minute walk to the METRO Breez with service to Yarmouth, Freeport and Brunswick and the ZOOM Turnpike Express bus to Saco and Biddeford
- 9-minute walk to METRO Route 5 traveling the Outer Congress corridor to the Portland Jetport
- 11-minute walk to METRO Routes 2 and 4 serving the Forest and Brighton Avenue corridors
- 12-minute walk to Monument Square and the METRO Pulse at Elm Street with access to all of the rest of Greater Portland's public transportation options:
 - o METRO Route 7 to Falmouth
 - o METRO Husky Line express bus to Westbrook and Gorham
 - o RTP Lakes Region Explorer with Route 302 service to Westbrook, Windham, Raymond, Casco, Naples and Bridgton
 - o Shuttlebus Intercity bus to the Maine Mall, Scarborough, Old Orchard Beach and Saco

A number of the above stop locations include benches and/or bus shelters. At the METRO Pulse, services include ticket sales, a staffed indoor waiting room, restroom, and outdoor seating. METRO, South Portland Bus and Casco Bay Ferry Lines all provide real-time arrival information for riders, through the Southern Maine Transit Tracker website and smartphone apps such as Google Maps, Transit and Moovit. In addition, the Lakes Region Explorer and Biddeford Saco Old Orchard Beach Transit also provide live-time bus data through the organizations' websites. All local and express buses are equipped with bicycle racks with space for 2-3 bikes. In addition, the ZOOM bus and most METRO buses and offer Wi-Fi access; some provide in-seat USB ports.



In October 2020, METRO, South Portland Bus Service and Biddeford Saco Old Orchard Beach Transit launched the highly desirable DiriGO TouchPass electronic fare system. This enables riders and sites like the Mercy redevelopment to pay only for transit trips taken, versus paying for multi-ride or monthly passes that may or may not be used fully. In addition, the system caps fares so that riders never pay more than a certain amount each day and each month; once they hit the cap, they ride free for the rest of that time period. For COVID-19 purposes, because the TouchPass is available via either a smartphone application or smart card, it is also a contactless and safe way to pay one's fare.



In addition, METRO's Peninsula Loop Reboot project (delayed by COVID-19 but still in process) is likely to provide more frequent and better aligned transit service in the area. This could enable increased ridership of Peninsula residents and employees to and from the Mercy Hospital Redevelopment.



Shared Mobility Access

In terms of shared mobility, the use of transportation network companies (TNCs) such as Uber and Lyft has grown substantially in recent years. A TNC trip does not reduce traffic congestion, unless users are carpooling; however, it does reduce parking demand.



With the end of UhaulCarshare service in Portland in February 2020, NewHeight Redfern, LLC will be exploring other carshare possibilities for the Mercy Hospital Redevelopment. If an option is found feasible, the site's TDM program will offer a discount for resident carshare vehicle use for the first year of residency.

Over the past several years, the City was exploring various bikeshare possibilities for Portland. If and when the system is launched, the developer will provide monthly bikeshare memberships for tenants.



B. Mercy Hospital Redevelopment TDM Coordination

NewHeight Redfern is committed to reducing drive-alone resident, retail employee and visitor automobile trips, improving multi-modal safety, and easing traffic congestion and area parking demand near the Mercy Hospital Redevelopment through its TDM efforts.

The development team has a history of in-fill housing development projects. They have encouraged residents' mobility and financial wellness through initiatives such as offering rent reductions for tenants who are car-free and separating housing leases and sales from parking space rental or purchase, providing bus pass subsidies, constructing on-site bicycle/stroller/handcart rooms and fitness centers, and offering multi-use and small vehicle parking (e.g., for scooters). The team also has experience with TDM plan implementation at other locations in Portland. They see this site's TDM program as part of their larger sustainability, quality-of-life, and smart growth missions.

NewHeight Redfern has designated Emily McConnell as the interim TDM Coordinator for 120 and 148 State Street until the development determines the site's property management company. She is charged with coordinating the TDM plan implementation and monitoring and making any needed changes. Her contact information is: Emily McConnell, NewHeight Redfern, 217 Commercial Street, Suite 205, Portland, ME 04101, emily@newheightgroup.com, (207) 323-2333.

Highly successful TDM programs share three vital characteristics – they are:

1. Dynamic - piloting strategies, assessing impacts, and modifying tactics as needed;
2. Rigorously supported and monitored by local governing bodies, in this case, the City of Portland;
3. Managed by committed and enthusiastic staff who are responsible for overseeing, promoting and sustaining the program.



The eventual property manager for the Mercy Redevelopment will be the long-term TDM Coordinator. Acknowledging that roles and responsibilities change over time in any position, NewHeight Redfern and its future site property manager will use the first year of TDM implementation to enumerate the TDM Coordinator's responsibilities in detail for any other staff to uphold the responsibility of the position.

Day-to-day operations and monitoring of the TDM plan will be conducted in-house by the TDM Coordinator long-term and NewHeight Redfern will retain the services of a TDM consultant to review initiatives, problem-solve and develop new strategies if and when necessary.

C. Trip Generation & Parking Demand Projections & Targets

NewHeight Redfern has hired Cushman Transportation Consulting, LLC (CTC) to assist with its transportation demand management process. CTC specializes in TDM efforts locally and connects with TDM research and programs across North America – including aspects of setting and managing TDM targets. This all informs the following trip reduction, parking reduction and multimodal goals.

The development team has also hired Traffic Solutions to produce trip generation and parking demand projections to assess the potential impact of the Mercy Hospital Redevelopment. The firm has utilized recent local parking and traffic study data, as well as the latest data from the Institute for Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition) and the ITE *Parking Generation Manual* (5th Edition). The traffic and parking assessments each include distinctions for the multimodal context of the site.

A complication for setting ambitious targets for this particular site is the existing high multimodal rate of individuals who currently live in the West End and downtown. That is, when a multimodal rate is already extraordinary, mode change is much more incremental and moderate than if the rate has significant room for growth.

The Mercy Redevelopment TDM Coordinator is responsible for:

- Ensuring strategic parking management and monitoring parking usage
- Coordinating tenant TDM policies and incentives
- Connecting tenants with nearby transportation resources
- Encouraging greater use of preferred modes – walking, bicycling, carpooling, taking bus or rail transit, and telecommuting-through transportation kiosk and site-wide promotion
- Overseeing/conducting surveying of tenants
- Filing annual reports and updating the plan with the City
- Exploration of additional TDM strategies, as needed

Projections & Targets

The TDM Plan sets the following targets:

- **Trip & parking reduction target:** a 10% reduction in resident and tenant employee vehicle trips and parking demand within 3 years after full occupancy - resulting from TDM program; i.e., 7 weekday morning peak trips, 6 weekday evening peak trips, 6 spaces
- **Multi-modal target:** 65% of resident and tenant employee trips will be via transit, carpooling, by bicycle, on foot or telecommuting within 3 years after full occupancy
- Will reassess targets after the first full year of Mercy Hospital Redevelopment occupancy





Projected Trip Generation & Parking Demand

As stated earlier, the new uses at the Mercy Hospital Redevelopment will result in an approximately 63% reduction in vehicle trips to and from the site, compared with the trip rate for the existing hospital uses at full capacity.

Also mentioned previously, based on City land use code Section 14-332 (c), the minimum amount of required parking for the site will be determined by the developer's parking assessment and the recommendation of the city transportation engineer. In addition, as referenced in the code:

The planning board may establish a parking requirement that is less than the normally required number of spaces upon a finding of unique conditions that result in a lesser parking demand, such as housing for persons who cannot drive, housing that participates in a travel demand management program, [and] availability of transit...

According to the traffic analysis, the Mercy Hospital Redevelopment can be expected to generate 67 vehicle trips in the morning peak hour and 59 vehicle trips during the evening peak hour of a typical weekday.

Per the parking demand projection analysis, the average peak weekday demand for parking at the site is expected to be 59 spaces.



Trip Reduction Target

Given the multimodal accessibility of the site, the high existing rate of alternate transportation use by those living in the area, and the transportation demographics of expected tenants, the Mercy Redevelopment's TDM efforts should enable a further 10% reduction in resident drive alone vehicle trips by the end of 3 years of full site occupancy. That is, 7 weekday morning peak trips and 6 weekday evening peak trips. The TDM Coordinator plans to revisit this reduction target after the first year of 100% occupancy of the site's buildings.

Parking Reduction Target

With 68 parking spaces planned for the Mercy Redevelopment, the site's parking needs will be met. However, with potential future expansion of housing on the site, NewHeight Redfern's TDM program will work to further reduce the parking demand. With the lower vehicle ownership rate of urban dwellers, the strong strategy of unsubsidized parking, and the implementation of TDM incentives, it is anticipated that an achievable parking demand reduction is 10% by the end of 3 years; i.e., 6 spaces. The parking demand target will also be revisited after the Mercy redevelopment is fully occupied for the first year.

Multimodal Target

The Mercy Hospital Redevelopment is setting an initial target of 65% of residents and retail/commercial and clinic employees making multimodal trips to and from the site, by 3 years after full occupancy. This includes transit, carpooling or vanpooling, bicycle, pedestrian and telecommute trips or some combination of these modes.

As mentioned on the previous page, it is a complex target to set because of the current high multimodal rate already existing in the area. The target is also different from the trip and parking reduction ones above, because it includes the diverse commuting habits of the site's residential and employee populations. That is – with the range of potential tenants and tenant occupations (including students and retirees), as well as nontraditional retail and clinic work shifts - a number of these trips are likely to be outside of the morning and evening peak periods. For example, according to census data, when retired from day-to-day work, an individual's vehicle miles traveled decreases overall. NewHeight Redfern plans to closely monitor existing trends to attain a reasonable mode-shift goal over time.

It is most useful for the site's TDM efforts to address the specific needs of transit users, carpoolers, bicyclists, walkers and telecommuters and set an overarching multimodal trip target – versus targets for each mode. From other TDM experiments across North America, it is clear that individuals' use of various alternate modes shift over time as different residents come and go and/or their needs change. For example, a tenant who uses transit might move to another location or an employee who walks might switch primarily to bicycling. In another instance, a tenant who was able to drive may lose the ability to do so and switch to using transit or carpooling for errands.





D. Trip and Parking Reduction Strategies

In the table on the following page, NewHeight Redfern proposes a number of best-practice and sensible parking and trip reduction strategies for the site's TDM Plan. These are based on the development team's understanding of the transportation context, likely residents, and the usefulness of various TDM efforts. For example, unsubsidized and unbundled parking will produce the strongest results for decreasing single-occupancy vehicle trips to and from the site.

In addition, the team acknowledges the various needs of different multimodal commuters. For instance, tenants who use transit, walk or bicycle are more able to do so if they have on-site, secure storage for larger commuting gear like strollers, bicycle trailers and shopping handcars. Moreover, even if current drive-alone residents and retail commuters have to pay for parking, likely this will need to be combined with tangible financial incentives like transit pass subsidies. These are vital to encourage people to experiment with other ways of getting around.

Another critical component for the success of the Mercy Redevelopment TDM Plan is a carefully thought-out marketing plan that engages tenants from when they first move in regarding preferred modes of transportation, and provides easily accessible information and subsidies. As shared by Portland, Oregon's SmartTrips Welcome program, a residential move is a unique and powerful opportunity for mode experimentation and change. This marketing also builds the site's TDM culture and the sense of multimodal travel as the social norm. As the site is developed and under construction, the team will design a promotion strategy to encourage walking, bicycling, telework and teleservices, carpooling and the use of public transit.

...When a person changes residence, everything changes: the way to the store, the way to work, even the steps to the fridge.

This time of change offers a unique opportunity to create new neural pathways or reinforce old ones that haven't been used for a while and make these stronger than habitual pathways.

Andrew Pelsma, SmartTrips Program Specialist, Portland, Oregon

...To us, this represents a significant number of people with an immediate gap in knowledge about their local travel options.

Linda Ginenthal, SmartTrips Program Manager



Finally, the region was recently reexamining the need for an area Transportation Management Association (TMA) to benefit sites like the Mercy redevelopment. TMAs are generally public-private entities that assist sites with TDM implementation, outreach and monitoring; advocate for improved transit and act as brokers for services such as shuttles. NewHeight Redfern plans to support the development of a TMA, if found to be feasible, and have the Mercy Hospital Redevelopment participate as a member.

Infrastructure	
Reduced Parking/Shared Parking	<i>Shared-use parking:</i> On-site parking will be shared and serve a dual use for overnight parking for residents and daytime deliveries and parking for Mercy and retail employees, as leased. Tandem parking actively managed by site TDM Coordinator. Residential overnight parking works well with day-use visitor/employee parking locations such as these.
	<i>Reduced parking:</i> Mercy Redevelopment is limiting parking supply by providing fewer spaces than required by the City's zoning ordinance.
Pedestrian & Bicycle Access	<i>Sidewalks:</i> reconstruction of street sidewalk segment abutting development on Spring Streets
	<i>ADA-accessible pedestrian amenities:</i> barrier-free ramp improvements
	<i>Crosswalks:</i> striping improvements for crosswalks at Winter and Spring Streets
	<i>Lighting:</i> street/building lighting improvements to improve sidewalk illumination
	<i>Outdoor, within-site bicycle parking:</i> 16 spaces using custom bike racks
	<i>Indoor, secure bicycle/stroller/handcart parking at 120 State</i> for bicycles, electric bikes, cargo bikes or trailers, handcarts and strollers
	<i>Electric bicycle charging:</i> To provide charging station/outlets for resident electric bikes in storage room
	<i>Bicycle repair station:</i> To provide bike repair stand in storage room
Shared Mobility	<i>Showers & lockers:</i> To provide 1 shower and clothing lockers within clinic space
	<i>Carseat storage space:</i> To facilitate child carseat storage, for those commuting by carpool, there will be an open storage space for carseats in the indoor, secure bicycle parking room.
	<i>Carshare possibilities:</i> With the end of UhaulCarshare service in Portland in February 2020, site owner will explore other carshare possibilities for Mercy Redevelopment.
	<i>Handcarts:</i> for all initial tenant leases, provide one collapsible shopping/utility cart. Alternately, provide provide one collapsible shopping/utility cart with property management branding for every 15 dwelling units, available for checkout on hourly basis (e.g., pen and paper sign up system, online, etc.)
Electric Vehicle Charging Station	Will provide 4 electric vehicle charging stations
On-Site Amenities	<i>Co-working/community space:</i> work area and meeting space for tenants' use to encourage community-building and telecommuting
	<i>Broadband access:</i> hardwired infrastructure for broadband and WiFi
	<i>Gym:</i> Provide on-site gym to reduce vehicle trips and improve resident physical fitness for active transportation
	<i>Health Clinic:</i> general health services available to the public
Delivery Supportive Amenities	To provide temporary storage for packages and other deliveries to facilitate delivery services



Incentives

Transit Subsidies	<i>Transit passes:</i> Transit subsidy for residents and Mercy employees to use transit
	<i>Transit pass reduced payments, fare capping and processing:</i> Explore new DiriGo TouchPass system to simplify management of transit subsidy for individual resident trips (launched in October 2020 by METRO, City of South Portland Bus Service and Biddeford Saco Old Orchard Beach Transit)
Shared Mobility Subsidies	<i>Carshare:</i> Discount for resident vehicle use of any on-site or near-site carshare available, for first year of residency
	<i>Bikeshare:</i> Monthly bikeshare memberships for residents when/if bikeshare starts in Portland

Information

Education for Travel Choice	<i>Webpage:</i> To maintain active web page on property management website for residents. Page to include same information as orientation packet below. Mercy Hospital on the Fore can also link to this page.
	<i>TDM orientation packets:</i> New residents and clinic/retail/commercial employees will be provided with orientation packets regarding the site's TDM program and access to site by various travel modes. Includes: (1) Map of area, showing major streets, nearby landmarks, walk/bike times, closest bus stops and walk times, recommended walk/bike routes, etc. (2) Transit service frequency, fares, first and last runs, and schedules if possible, phone numbers and web addresses for transit service providers and taxi companies. (3) How to reach the site from major transportation terminals (bus and train stations, airport, ferry terminal, etc.) (4) Access arrangements for people with disabilities; (5) Availability of bicycle facilities, including secure bike parking; (6) Encouraging residents to become members of GO MAINE and access rewards system, carpool matching and Emergency Ride Home Benefit; (7) automobile parking availability and price; (8) Any future carshare or bikeshare info; (9) Information regarding building TDM program and contacting the TDM Coordinator.
	<i>New Resident & Employee TDM Engagement & Acknowledgement:</i> TDM Coordinator will engage with each new resident to share about the TDM program as part of the building's sustainability initiatives. All new tenants and clinic employees will be provided with the site's TDM program overview goals. They will be asked to sign an acknowledgement of the goals of the project and a commitment to participate in the annual resident and employee commute surveys.
	<i>Ongoing TDM program education:</i> 1 or more times per year, TDM Coordinator will email all residents (new and existing, including subletters) and clinic employees the same information as is in the TDM orientation packets.
	<i>Transportation fairs/tabling:</i> Explore hosting morning or late afternoon tabling event in lobby 2-3 times per year, to engage residents in conversation about their transportation choices as they head out or come home. Consider offering light refreshments.
	<i>Experiment with walking tour of multi-modal options:</i> Offer a hands-on walking tour of all the transportation options near the property. For example, a visit to the METRO Pulse on Elm Street, including how to ride the bus and practice putting a bicycle on the bus.



Education for Travel Choice (cont'd)	<i>Experiment with offering on-site bicycle safety class: As residents show interest, host a bicycle safety/information class or bicycle repair event</i>
	<i>TDM surveying: The required resident, employee and visitor TDM surveys and reporting to City will also serve as education tool</i>
Promotion of Alternate Modes	<i>Co-promotion with City and downtown agencies: Work with Portland Downtown and City of Portland's Drive Less, Do More marketing campaign to promote alternatives with residents</i>



E. Plan for Monitoring, Data Collection and Reporting

Recognizing that the implementation of a TDM Plan is a dynamic process, the Mercy Hospital Redevelopment TDM Coordinator will work with the City to monitor the effectiveness of the site's TDM Plan components - and to assess whether the site is achieving the trip and parking reduction and multimodal targets listed above. NewHeight Redfern will work with tenants to evaluate on-site parking use and incentives for preferred modes and make improvements. Another important piece will be to determine the flexibility of tenants, employees and site visitors to utilize various travel modes.

Tenant Surveys

The TDM Coordinator will conduct annual resident and retail tenant surveys that provide quantitative data (e.g., trip, parking and mode split) and qualitative data (e.g., perception of alternate transportation, area parking and the site's TDM programming). The site will carry out these surveys once annually for the first three years of full occupancy and then every two years thereafter, with at least 50% tenant participation.

The survey will be developed in consultation with the city's TDM manager and conform to overall city TDM modeling and planning. Survey questions will include:

- Number of people in household
- Resident mode of travel to and from work and/or for other trips away from the site – plus frequency of use of those modes
- Retail employee mode of travel to work
- If parking personal vehicle(s), where parked



- Whether the resident or employee drives during morning or afternoon peak periods
- Use of/participation in:
 - o On-site bicycle parking/stroller/hand cart storage
 - o Any use of site TDM incentives (such as transit passes) or other benefits or programming
 - o GO MAINE membership and program participation
 - o Any future use of off-site carshare and/or Portland bikeshare
- TDM marketing effectiveness
- Preferences, barriers or concerns with modes of travel and likelihood of changing travel behavior given specific incentives or disincentives
- Rating knowledge of walking, bicycling and using the bus in the community
- Space to add suggestions and comments

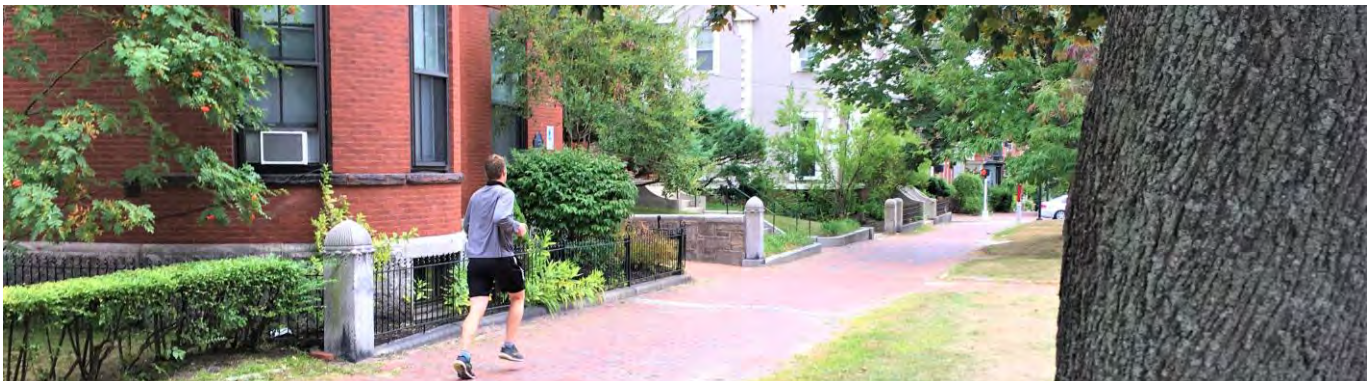


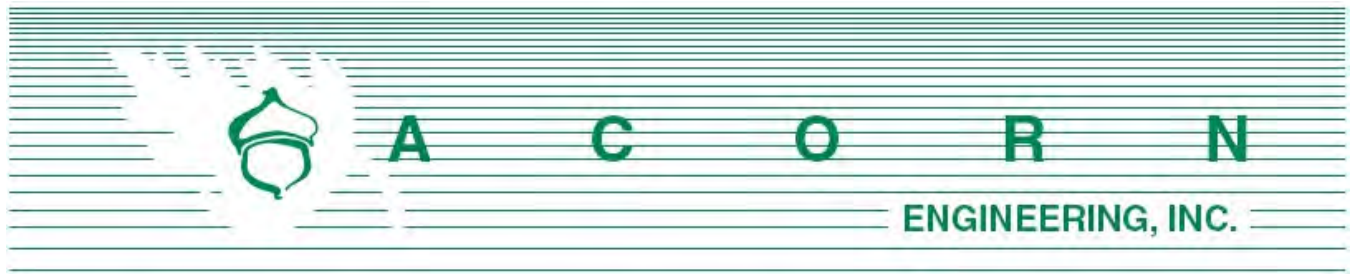
Note: the use of these survey tools will also assist the Mercy redevelopment with its TDM education efforts. That is, the questions themselves help people think differently about their transportation behavior. The surveys will also provide a reminder of the site's TDM incentives, the TDM online/on-site information center and the TDM Coordinator as a resource for more information about options.

Annual Report

The TDM Coordinator will then produce an annual TDM Report to meet the City's monitoring requirements. The report will include:

- a. the above survey data and percent of units occupied;
- b. how the data directly relates to the plan's reduction targets;
- c. details of that year's TDM operations – including management, strategies, marketing, number of contact points with residents, and any new infrastructure development;
- d. lessons learned and any changes in the TDM plan during the year;
- e. plans for the following year.





Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

November 9, 2020

Subject: 120 and 148 State Street Neighborhood Meeting

I, Peter Heil, hereby certify that a neighborhood meeting was held on November 5, 2020 remote via Zoom at 5:30 pm.

I also certify that on October 22, 2020, 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.
2. Residents on the "interested parties" list.

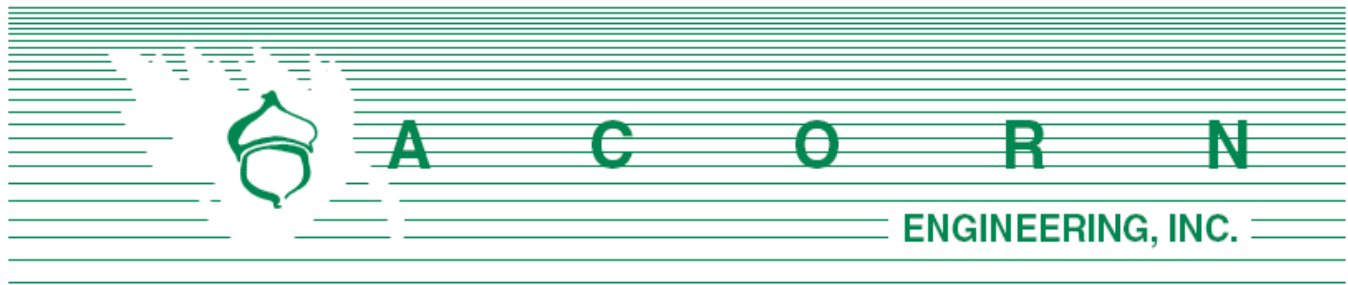
Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter Heil', is positioned above the printed name.

Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes



October 22, 2020

Dear Neighbor:

On behalf of NewHeight Redfern LLC, we are pleased to invite you to a virtual neighborhood meeting to discuss a proposed Level III Site Plan/Subdivision Application related to the property located at 120 & 144 State Street (Chart 45, Block C, Lots 6 & 7). The project proposes to redevelop the existing lot into a mixed-use development consisting of 175 residential units, including 18 onsite Workforce Housing Units as required by the City's Inclusionary Zoning Ordinance. The project also proposes commercial/retail space, a medical clinic and self-storage.

Meeting Location:

This meeting will **be held remotely via Zoom** according to state and local requirements around social distancing and will be available for public viewing and participation. **Please email admin@acorn-engineering.com to request a link or phone number to join the meeting.** You may also call the office line (listed below) to request this information.

Meeting Date/Time: Thursday, November 5, 2020 at 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. Both the sign-in sheet and recorded meeting minutes will be submitted to the Planning Board. If you have any questions, please do not hesitate to call the office at (207) 775-2655. We look forward to seeing you at the meeting.

Sincerely,

William H. Savage, P.E. - Acorn Engineering, Inc.

Sign In Sheet

11/5/2020

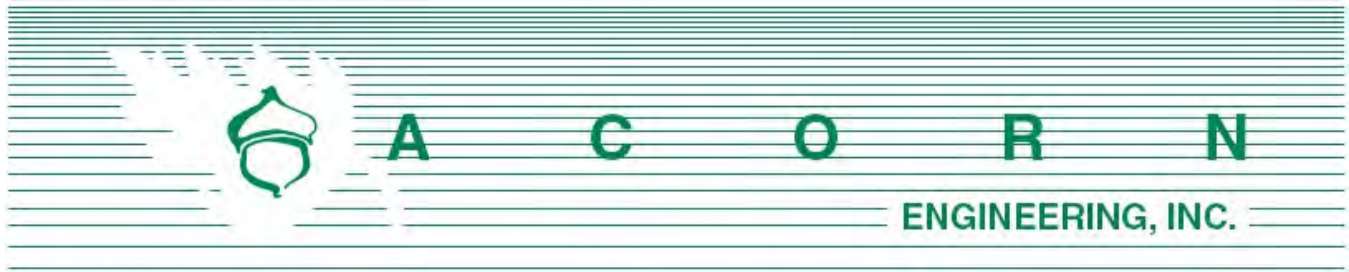
120 & 148 State Street Portland, ME 04101

Members of the Public in Attendance:

NAME	E-MAIL
1. Anne Pringle	oldmayor@maine.rr.come
2. Liz & Lin Parsons	ecparsons33@hotmail.com
3. Ian Jacob	iancasperjacob@gmail.com
4. Ginger Raspiller	mainelyearth@aol.com
5. Chip Martin	dennyjrdaddy@yahoo.com
6. Peter Plumb	pplumb@pmlaw.com
7. David Houde	davidhoude3030@gmail.com
8. Linda Atherton	l.atherton@twc.com
9. David Marsden	marsdenadventures@gmail.com
10. Joanne Abrams	joannewabrams@gmail.com
11. Jennifer Defilipp	Jend@townendre.com
12. Ken Swanberg	swanberg@cheverus.org
13. Camy Barrantes	barrantescamy@gmail.com
14. George Rheault	George.rheault@gmail.com
15. Suzanne Hunt	Shuntdoherty@gwi.net

Developer and Consultant Team in Attendance:

NAME	E-MAIL
1. Will Savage	wsavage@acorn-engineering.com
2. Peter Heil	pheil@acorn-engineering.com
3. Ryan Senatore	ryan@senatorearchitecture.com
4. Nick Aceto	na@acetola.com
5. Erin Cooperrider	erin@newheightgroup.com
6. Jonathan Culley	jonathan@redfernproperties.com



**120 and 148 State Street
Level III Site Plan Submission**

Neighborhood Meeting Minutes

November 5, 2020 / 5:30 pm

Remote meeting via Zoom

Project Team Attendees:

Will Savage (WS): Civil Engineer/Presenter (Acorn Engineering)

Peter Heil (PH): Civil Engineer/Note Taker (Acorn Engineering)

Ryan Senatore (RS): Architect/Presenter (RSA)

Nick Aceto (NA): Landscape Architect/Presenter (ALA)

Erin Cooperrider (EC): Owner/Applicant (NewHeight Redfern LLC)

Jonathan Culley (JC): Owner/Applicant (NewHeight Redfern LLC)

Meeting started at approximately 5:30 pm.

Presentation:

Erin Cooperrider:

- Introduction of project and project team
- Meeting about site plan review
- This meeting is part of the planning board approval process, a sign in sheet is available for everyone which will become public record along with the meeting minutes.

Will Savage:

- Professional Engineer and Project Manager
- Overview of site in relation to neighborhood
- Overview of Mercy site development only, does not include CHOM parcels

- Proposal includes subdivision of parcel for future affordable house projects, which will be permitted separately
- Residential uses only along Winter Street
- Proposal includes 167 residential units within the existing Hospital building and 8 residential units in Morrison house, for a total of 175 residential units
- Additional uses, commercial, self-storage, retail, medical clinic, shared spaces
- Currently R6 district, map/text pending for B3 with height limitations along Winter Street
- Two parcels, totaling 2.48 acres, bounded by Winter Street, Spring Street and State Street
- Located in the West End neighborhood – various uses residential, commercial and restaurants
- 47 parking spaces within woonerf – shared use space, pedestrian and vehicular use
- Eliminating curb cut on Winter Street, provide emergency access from Winter Street
- The change in use will result in a net reduction in overall traffic counts
- Parking overview – traffic engineer prepared parking and traffic analysis which includes 83 spaces required. The project is proposing 68 spaces on site.
 - o Difference to potentially be made up with future off-site lease
 - o Parking in woonerf and loading dock area.

Ryan Senatore:

- Project architect
- Overview of building uses:
 - o Residential upper floors
 - o Clinic on ground level
 - o Self-storage spaces
 - o Commercial spaces
- Remove existing portions of building
- New entry addition – new façade
 - o Materials description
 - o Main entry from woonerf
 - o Additional commercial spaces
- Upper levels restored, modern windows for addition
- Bring building back to historic condition per guidelines
- Overview of elevations
- Overview of floor plans and layout and different uses
- Overview of demo and existing conditions and how the proposed conditions will change.

Nick Aceto:

- Landscape architect
- Description of woonerf
 - o Shared / living street
- Images of example woonerfs



- Inspiration imagery of materials proposed within the project
 - o Corten steel
 - o Wood elements
- Images of planting material character
- Overview of site changes
 - o Existing hospital complex, entrances, parking
 - o Proposed engaged public spaces, landscaping, shared space, materials
- Renderings showing courtyard / patio area / woonerf integration
 - o Landscaping, site features, planters, tables, chairs
- Rendering of state street façade improvements.

Will Savage:

- Next steps – planning board workshop to occur 11/17/20
- Likely 2 workshops and public hearing
- Development presentation concluded and public comment process will start
- All are encouraged to attend the planning board hearing anticipated in November.

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Anne Pringle: is Corten steel that rusty steel?

- **Ryan/Nick:** weathered steel product.
- **Ann:** I really don't like the notion of Corten steel - it's been a real problem at the Museum with the "Seven" sculpture.

Peter Plumb: I don't get the parking; project propose 83 spaces for your 175 units. That is not feasible. And what about all the CHOMS residences?

- **Will:** parking analysis submitted by Bill Bray, traffic engineer using ITE standards, looking at unit mix, parking ratio, proposed uses, determines parking count, shared use ratio to appropriately size parking.
- **Jonathan:** climate activist also asking for less parking, trying to provide reasonable balance and potential impact to the neighborhood.
- **Erin:** affordable housing has low parking demands, as shown in other affordable housing projects within the City.

Ginger Raspiller: I would like to ask a question about parking spaces and location of spaces on the site.

- **Jonathan:** in talks to acquire long term lease to increase the number of spaces beyond what is currently planned on site.



- **Will:** majority of spaces within woonerf, remainder in lower loading dock area, design incorporate circulation and lessen impacts to winter street. Includes emergency access off winter.

Chip martin: What are the trees proposed to be between the project and the Portland Club property line between Winter Street and State Street.

- **Nick:** planting plan does not currently include trees, but can look at additional vegetation and landscape elements, but limited space available.
- **Will:** It is very limited in space overall.

Ian Jacob: My question is regarding the space between 148 State and the hospital. Why is this not on the level as the woonerf and thus connect to State Street? The storage access would be achieved by an elevator. It would create a higher use of that space and connectivity in the neighborhood and to the campus.

- **Jonathan:** existing grades and bringing grades up would be a huge challenge and expensive and would be burying existing levels below grade.
- **Erin:** that existing area also hides and provides shielding for parking, loading docks, and dumpsters.

Anne Pringle: I really do not like the notion of Corten steel - it's been a real problem at the Museum with the "Seven" sculpture, rust/bleed onto pavement.

- **Ryan:** Looking at detailing to make sure it does not deteriorate.
- **Nick:** There is detail that shows an airgap between the steel and the paver so leeching will go below the paver.

Denny Barrantes: How has this parking count worked for other projects in the city? How is parking demand determined? *Follow up chat:* Erin already answered my questions about the parking demand and experience. Thank you.

- **Will:** traffic engineers have developed the parking analysis based upon existing use of parking lots within city and ITE studies.

Ian Jacob: Sunken storage access area -I hear all your points and understand the sight restrictions. It would be useful to explore further though.

- **Erin:** can follow up offline to have a detailed conversation about why.

Elizabeth Parsons: Will you be able to install trees in the woonerf that resemble those in the drawings in size?

- **Jonathan:** trees will not be installed as shown in renderings but will grow over years.

George Rheault: Asking about design of loading dock, potentially have level parking over top and structured parking below.

- **Jonathan:** more parking raises cost of housing but trying to build workforce housing: 80-120% median income price range and a balance.
- **Erin:** historic structure requires preservation approval in addition to cost.

Peter Plumb: Will project be required to meet new referendums.



- **Jonathan:** Accessing implications, it will be subject to rent control, CHOM also trying to evaluate, but do not see it affecting project as currently proposed.
- **Erin:** Impacts on affordable housing and cost caps will have effects on lending, still determining how everything will shakeout.

Ian Jacob: likes site programming, additions, renderings. Existing use campus has inflicted scars on neighborhood, neglected loading dock area. Suggesting covered deck and pedestrian connectively through site.

- **Jonathan:** We can review, will you provide sketch?
- **Ian:** Yes.

Ginger Raspiller: I agree the loading dock area could be a great area for additional parking. The entire project at the Mercy parcel has 270 units + retail + medical clinic and the plan is proposing 83 parking spaces. That will not be sufficient parking. It will put pressure on a neighborhood that has insufficient resident parking. We live in the neighborhood and have issues with illegal parking in our lot throughout the day. Address parking on site vs leased space off site. Considerations to plantings within urban environment, what type of trees will be proposed to survive?

- **Jonathan:** acknowledges comment and will be working with traffic engineer on parking.
- **Nick:** tree pit to help protection of snow, 3" caliper – pretty substantial size, make sure the species are appropriate for the space.
- **Will:** overhead power will go underground, reduce impacts to the existing topping of trees, relocate transformers on state street to allow for additional street trees along state.

Ginger Raspiller Parking for the project should be on-site not leased in the area. There are no guarantees with leased parking for the long term. I also don't like the proposed material for the panels. It doesn't feel like it fits in the historic neighborhood.

- **Jonathan:** 5-year lease term as required by city.

George Rheault: historic aspect of site, any info from Mercy from spring / winter historic conditions? Trees can mature quickly as long as their looked after and have a plan.

- **Erin:** working with historian on what type of windows and façade.
- **Ryan:** also, original construction drawings to utilize.

Anne Pringle: Corten Steel does rust and bleed on the pavement, I know the museums had trouble maintaining the sculpture that had Corten 'Seven' Steel. I would investigate other materials. Thank you.

- **Jonathan:** Thank you.

Peter Plumb: I have lived on Park Street since 1969 and seen the changes on Mercy over the years. We are delighted that something good will happen. We are dealing with most families with multiple cars; therefore, we are concerned about parking demands.

- **Jonathan/Erin:** Thank you.

Ian Jacob: There is currently no on-street parking in front of Mercy along Spring Street, consider working with city to add/reclaim on street parking within Spring Street as well as the right turn



lane on State into Spring. Now the Mercy hospital use has changed, some emergency vehicle access space can be reclaimed for parking.

- **Erin/Jonathan/Will:** good point, thank you.

Ginger Raspiller: Most of the people in our building are two working people and have made compromises to go to one car. Value of units: 80-120% area median income, what does that mean? Approx. unit cost.

- **Jonathan:** adjusted based surrounding area and size. Median income approximately \$55K-\$90K, rents will be approx. \$1,200-\$1,800/month. 10% deed restricted affordable housing. CHOM 50-60% area median income, financed by low income tax credits.

Ginger Raspiller: Will the materials be available to the public?

- **Jonathan:** Yes, we will submit the minutes of this meeting and they will become part of the public record.

Closing Comments

Jonathan Culley:

- Meeting Minutes will available on planning board website / attached to memo as part of the public record
- Planning Board Workshop on 11/17/20 around 4:30, not sure when project will be on the agenda yet.
- Available for private / 1 on 1 discussion
- Thanks everyone for joining and the discussion

Meeting concluded at approximately 6:45 pm.

The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Peter F. Heil, PE

Project Manager

Acorn Engineering, Inc.

pheil@acorn-engineering.com



Woonerf Tree Maintenance Plan 144 State Street, Portland, Maine

1. Material Selection:

Tree Size and Type

Specified trees are salt tolerant, hardy native Honey Locust, with a minimum caliper size of 2.5 inches. This choice of size is a compromise between a smaller caliper tree which might adapt better to the landscape and a slightly larger caliper tree that might provide a fuller, more immediate canopy. The selected tree has proven to be a hardy species and has been used successfully on challenging sites across the City of Portland.

Plant Material Selection Process

The Landscape Architect will select trees from the nursery prior to planting. The landscaper will install the selected trees according to the plans and specifications, and maintain them during establishment in accordance with the specifications.

Planting Medium

The Landscape Architect will specify the location for planting, type and quantity of the soil, any required soil amendments, and inspect and approve the installation of the trees.

Warranty Period

The landscape contractor will provide a one-year warranty, replacing any trees that do not survive. Following the warranty period, the Owner will replace any ailing or damaged trees within the woonerf.

2. Site Design:

Exposure

The site enjoys a southern exposure, and will be in the sun for most of the day, thereby reducing ice and snow build up.

Tree Grate Size

The specified tree grates are five feet by eighteen feet, and completely cover the tree root balls, protecting them from compression by foot, bike or vehicle passage. In addition, the expanded tree grates provide a larger area of uncompacted growing medium, providing a similar benefit to larger tree wells shown to have helped support healthy tree growth elsewhere.

Drainage

Drainage is designed and catch basins located to direct runoff, which will contain any chlorides from deicing, away from the tree pits.

Snow Removal

The flush condition allows for snow plows to completely remove snow from this area, rather than stacking dirty, salty snow around the trees. The Landscape Architect will provide a detail for tree staking within the tree well for protection during initial establishment.

3. Operations**Care and Feeding of Trees**

Regular maintenance of the trees within the woonerf area will include semi-annual inspection of the trees, weeding if necessary, feeding and fertilizing, trimming and pruning if necessary, and regular watering.

Salt Reduction Strategies

The Property Manager will conduct an annual site walk to discuss winter operations with the maintenance contractor, including discussion of equipment proposed for use, such as brine applicator to make a pre-storm application of a brine solution, which has been shown to minimize the overall amount of salt used.

Regular inspection of cutting edges on plows and equipment will be conducted to make sure they are sharp, which has also been shown to reduce the overall need for salt.

Maintenance crews will be instructed to use chemical deicing products judiciously, applying it only where and when needed for safety in order to protect the trees and the woonerf materials.

Consultation with City Arborist

The property owner will monitor the health of new trees planted within the woonerf area in consultation with the City Arborist for a period of three years beginning on the date the Certificate of Occupancy is issued. If the City Arborist should find that the new trees show signs of general decline, a minor site plan application to revise the tree planting configurations by incorporating measures to enhance tree survival within the woonerf area will be submitted to the Planning Authority for review and approval.

Proposed parking for Mercy Hospital development is inadequate

Ginger Raspiller <mainelyearth@aol.com>

Nov 17, 2020 3:42 PM

Posted in group: **Planning Board**

Members of the Planning Board:

We continue to object to the current proposal for the Mercy Hospital site redevelopment due to a lack of adequate parking. The parking plan needs to address the parking needs for all the buildings: Mercy Hospital, Morrison House, Senior Affordable Housing and Affordable Housing.

The most recent design presented at the neighborhood site plan review held on November 5, 2020 includes just **68 spaces for 270 living units + retail + medical clinic.**

Mercy Hospital building: 167 units

Morrison House: 8 units

Senior affordable housing: 55 units

Affordable housing: 40 units

Total: 270 units 1 parking space for every 4 units before you even consider the retail and clinic.

Retail customers and employees need a place to park.

Medical clinic customers and the clinic's 12 employees also need a place to park.

As a 20-year resident of this neighborhood, I can assure you that we already have parking problems. Yesterday, I saw 3 cars ticketed and one car booted on Park Street. In our parking lot just across State Street (owned jointly by the Park Row Association and Spring Street Rowhouse Association), we battle illegal parkers all the time. Residents with reserved spaces come home late at night and find no available spaces. Illegal parkers ignore our signs and we are tired of towing. Perhaps private lots should be allowed to boot illegal parkers?

If you don't provide adequate parking, our wonderful residential Portland neighborhood will end up like Boston or New York where residents "stake out" their spaces and people fight over parking spaces.

Leasing off-site parking for 5 years is not a solution. It allows the project to be built and the residents are left - 5 years later when the lease expires - with parking problems.

There is adequate space to provide more parking on-site. The design can be revised to add more parking in the loading bay area of the site.

Ginger Raspiller

Ken Swanberg

150 Spring Street #5

From: **George Rheault** <george.rheault@gmail.com>

Date: Tue, Feb 23, 2021 at 9:49 AM

Subject: Public Comment 52 Hanover Street - Planning Equity - Mercy Hospital versus Tom Watson's Bayside Project

To: <planningboard@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>, Kevin Kraft <kkraft@portlandmaine.gov>, James Rather <jrather@portlandmaine.gov>, James Dealaman <jdealaman@portlandmaine.gov>, jmy <jmy@portlandmaine.gov>, Caitlin Cameron <ccameron@portlandmaine.gov>
Cc: Kate Snyder <ksnyder@portlandmaine.gov>, April Fournier <afournier@portlandmaine.gov>, Nicholas Mavodones <nmm@portlandmaine.gov>, Pious Ali <pali@portlandmaine.gov>, Mark Dion <mdion@portlandmaine.gov>, Andrew Zarro <Azarro@portlandmaine.gov>, Tae Chong <tchong@portlandmaine.gov>, Spencer Thibodeau <sthibodeau@portlandmaine.gov>, Councilor Belinda Ray <bsr@portlandmaine.gov>

The City of Portland has a lot to answer for with respect to the radically different approaches it has taken in recent large-scale land-use matters.

I wish to submit the attached 2018 article for the Planning Board's review and absorption.

The article makes clear that when Jon Jennings's planning minions want to engage "early and often" with a neighborhood on a big project, they know how to do it.

The massive outstanding question is why NONE of this same approach was applied to the West Bayside neighborhood with respect to Tom Watson's proposed superblock apartment building planned for 52 Hanover Street. Mayor Snyder and Councilor Ray certainly know the answer to that question, but they do not plan to divulge any answers any time soon - absent public pressure.

This stark contrast is even more powerful with the spot zoning indulgences getting handed out for the Mercy Hospital site at last evening's City Council meeting.

Sadly we heard not a single peep from the "social justice" wing of the Council last evening about the equity shortcomings of the Mercy Hospital project (one block from a soon-to-be renovated elementary school in a high-opportunity area yet largely devoid of family housing opportunities).

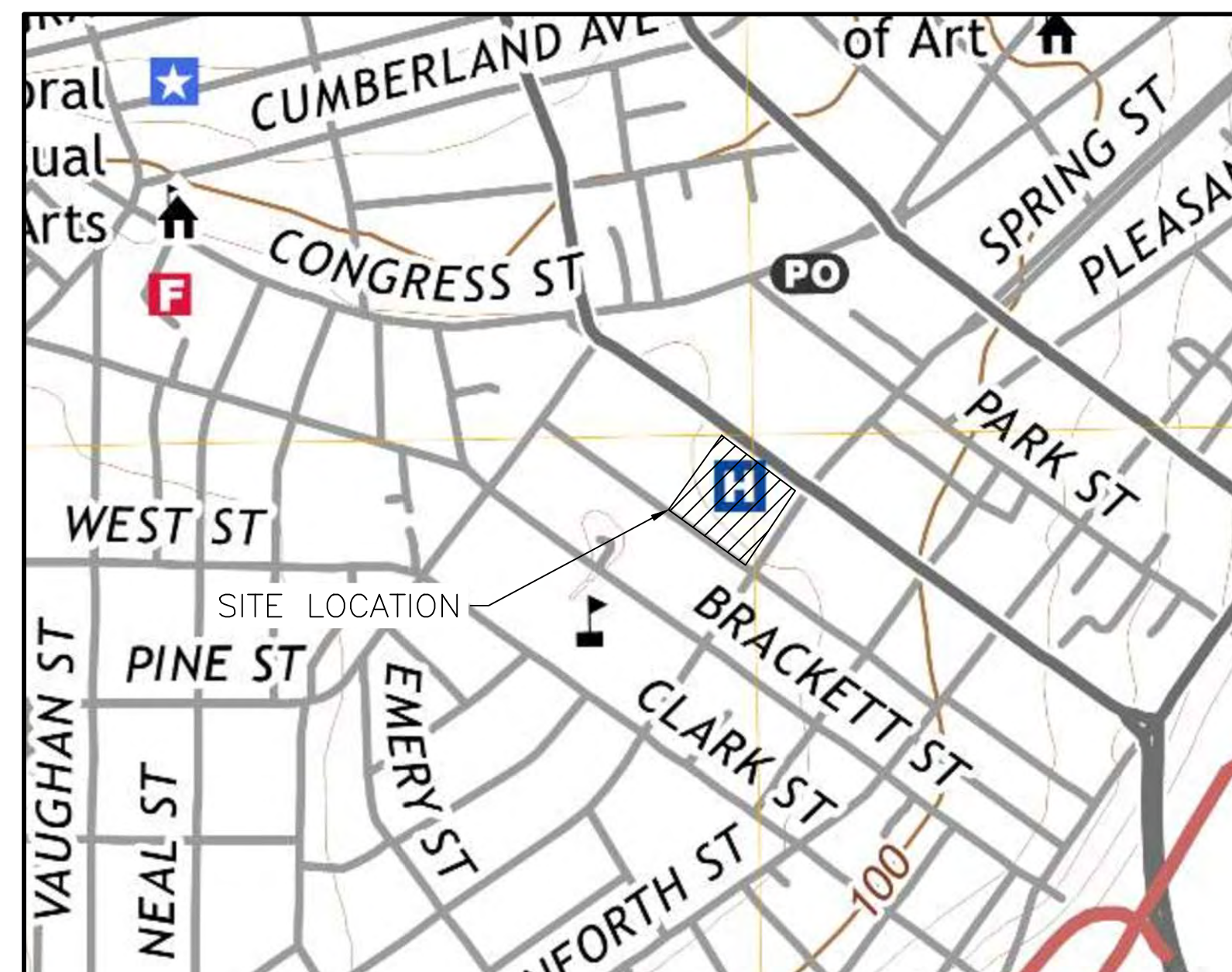
Chilled into cowardly silence by the affluent elite consensus surrounding the sad NIMBY and developer compromises that are allowing the Mercy Hospital redevelopment to proceed, Ali, Fournier, Chong and Zarro showed their true commitment last evening to fair housing and the empty slogans of the "Equitable" bubble that remains inexplicably at the very top of our otherwise deeply reactionary Comprehensive Plan's "vision statement."

NB: It is also worth mentioning that Zarro spent another part of last evening tripping over himself to rationalize why he will soon restrict land-use further in Portland to protect affluent property-owners on Munjoy Hill, but was too shy and cowardly to ask why more was not being done to ensure equity on the Mercy Hospital parcels or why the intensive years-long "neighborhood outreach" there does not apply uniformly to all city land-use matters like the Riverton Homeless Services Shelter or the sale and redevelopment of the Bayside public works parcels.

NEWHEIGHT REDFERN, LLC
PORTLAND, MAINE 04101

C-01	COVER SHEET & LEGEND
C-02	GENERAL NOTES
EX	BOUNDARY & TOPOGRAPHIC SURVEY - BY OWEN HASKELL, INC.
C-03	CONSTRUCTION MANAGEMENT PLAN
C-10	SITE PLAN
C-11	SITE PLAN - INTERIM
C-20	UTILITY PLAN
C-30	GRADING & DRAINAGE PLAN
C-40	SITE DETAILS - 1
C-41	SITE DETAILS - 2
C-42	UTILITY DETAILS - 1
C-43	UTILITY DETAILS - 2
C-44	DRAINAGE DETAILS
C-45	EROSION & SEDIMENTATION CONTROL NOTES
C-46	EROSION & SEDIMENTATION CONTROL DETAILS

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233



VICINITY MAP
NTS

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DIP	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

COVER SHEET & LEGEND

MERCY HOSPITAL REDEVELOPMENT

NEWHEIGHT REDFERN, LLC
2217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

.....

PROJECT NAME /

ADDRESS:

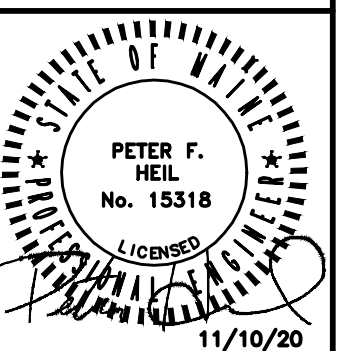
217 C



A C O R N
ENGINEERING, INC.

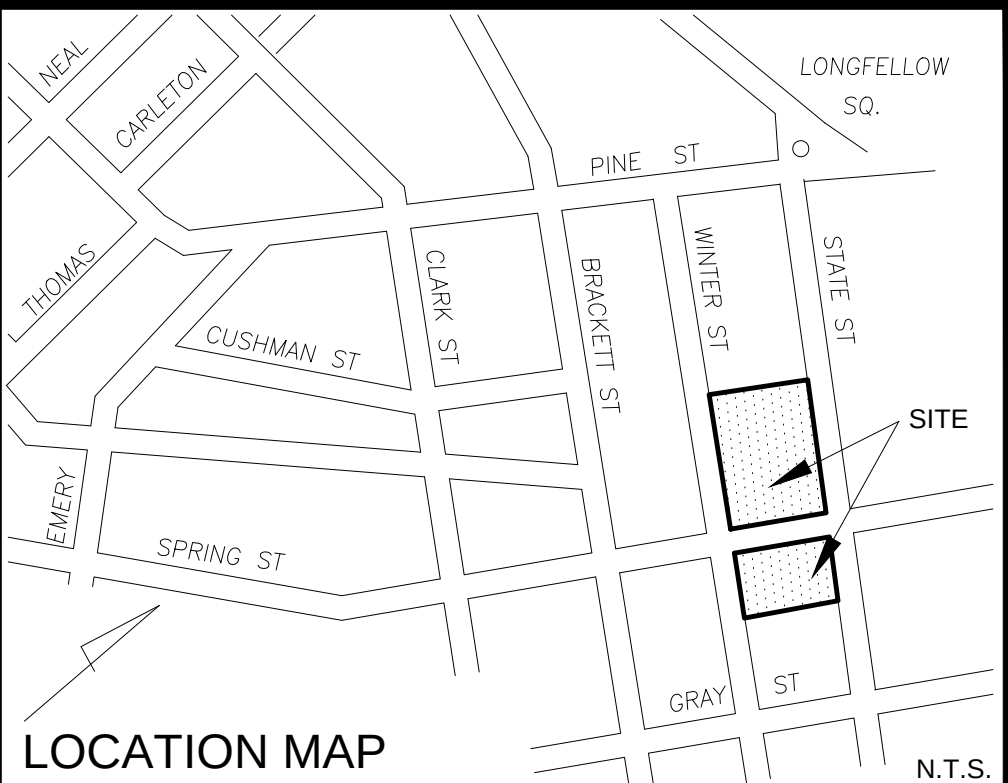
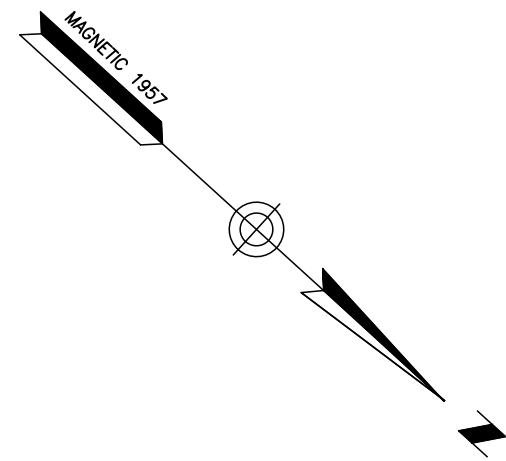
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2855

FILE:	1140_CIVIL
IN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS



DRAWING NO.

C-01



LEGEND	
●	IRON PIPE OR ROD FOUND
●	MONUMENT FOUND
⊗	GAS VALVE
⊗	UTILITY POLE
⊗	MANHOLE
⊗	EM/GM ELECTRIC/GAS METER
⊗	SIGN
⊗	CATCH BASIN
⊗	HYDRANT
⊗	WATER VALVE OR SHUTOFF
⊗	LIGHT POLE
⊗	DECIDUOUS TREE
⊗	CONIFEROUS TREE
—	GUARDRAIL
—	FENCE
—	CURB
—	OHW
—	E
—	W
—	G
—	T
—	SD
—	SS
—	100
—	IPF/IRF
—	N/F
—	000/000
—	L/S
—	CONC.
—	CONCRETE

- PLAN REFERENCES**
- "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED 3 FEB. 1982 REVISED THROUGH 15 MARCH 1982" BY H.I. & E.C. JORDAN, SURVEYORS.
 - "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED JUNE 17, 1981 REVISED OCT. 2, 1981" BY H.I. & E.C. JORDAN, SURVEYORS.
 - "STANDARD BOUNDARY & TOPOGRAPHIC SURVEY ON STATE STREET, PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED NOVEMBER 30, 1999 REV. 2 OCT. 04, 2012" BY OWEN HASKELL, INC.
 - "ALTA/ACSM LAND TITLE SURVEY, 102, 120 (AKA 144) & 148 STATE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR MERCY HOSPITAL AND EASTERN MAINE HEALTHCARE SYSTEMS" FEBRUARY 27, 2013 LAST REVISION DATE: SEPT. 20, 2013 BY OWEN HASKELL, INC.

- GENERAL NOTES**
- PREMISES IS SHOWN AS TM 45-C-6 & 7 AND TM 45-D-1 ON THE CITY OF PORTLAND ASSESSORS MAPS.
 - BEARINGS ARE BASED ON MAGNETIC 1957. COORDINATES ARE BASED ON CITY DATUM UTILIZING THE MONUMENTS SHOWN.
 - THE LOCATIONS OF ALL UTILITIES SHOWN ON THE SURVEY ARE FROM VISIBLE SURFACE EVIDENCE ONLY.
 - ELEVATIONS ARE BASED ON CITY DATUM AS PER MONUMENT T104-45-11 AT CORNER OF CLARK AND SPRING STREETS, ELEVATION = 127.91 FEET.

OWNER OF RECORD

NEWHEIGHT REDFERM LLC
CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 36459, PAGE 218

CERTIFICATE

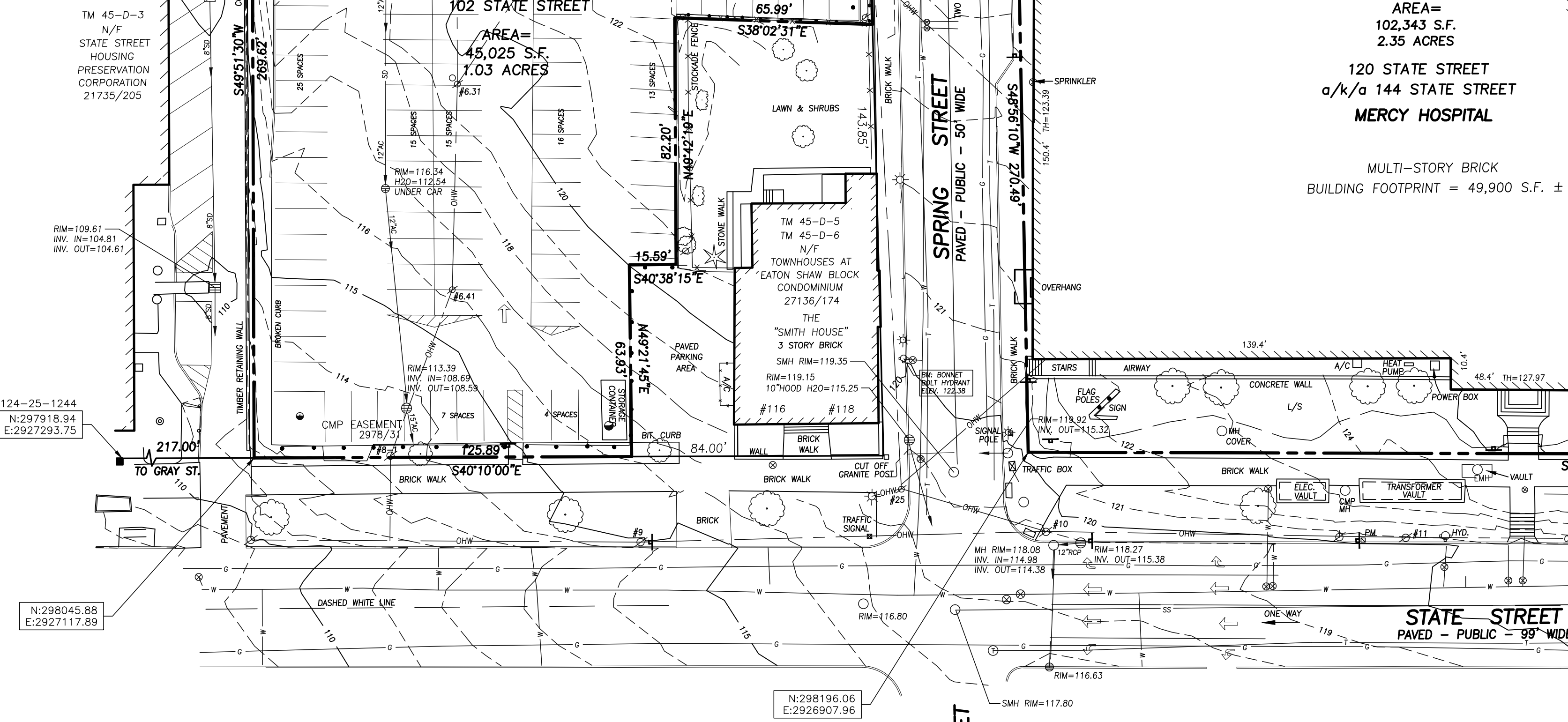
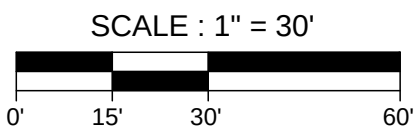
OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

Randy R. Loubier
RANDY R. LOUBIER, PLS #2407
8/4/2020
DATE

STATE OF MAINE
PROFESSIONAL LAND SURVEYOR
RANDY R. LOUBIER
2407

Boundary & Topographic Survey
At
102 & 120 State Street, Portland, Maine
Made for
NewHeight Redfern, LLC
c/o Jonathan Culley
167 Newbury Street, #503 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: AUGUST 4, 2020 JOB NO. 2020-161.P
CHECKED BY: RRL SCALE: 1" = 30' DRWG. NO. 1



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.

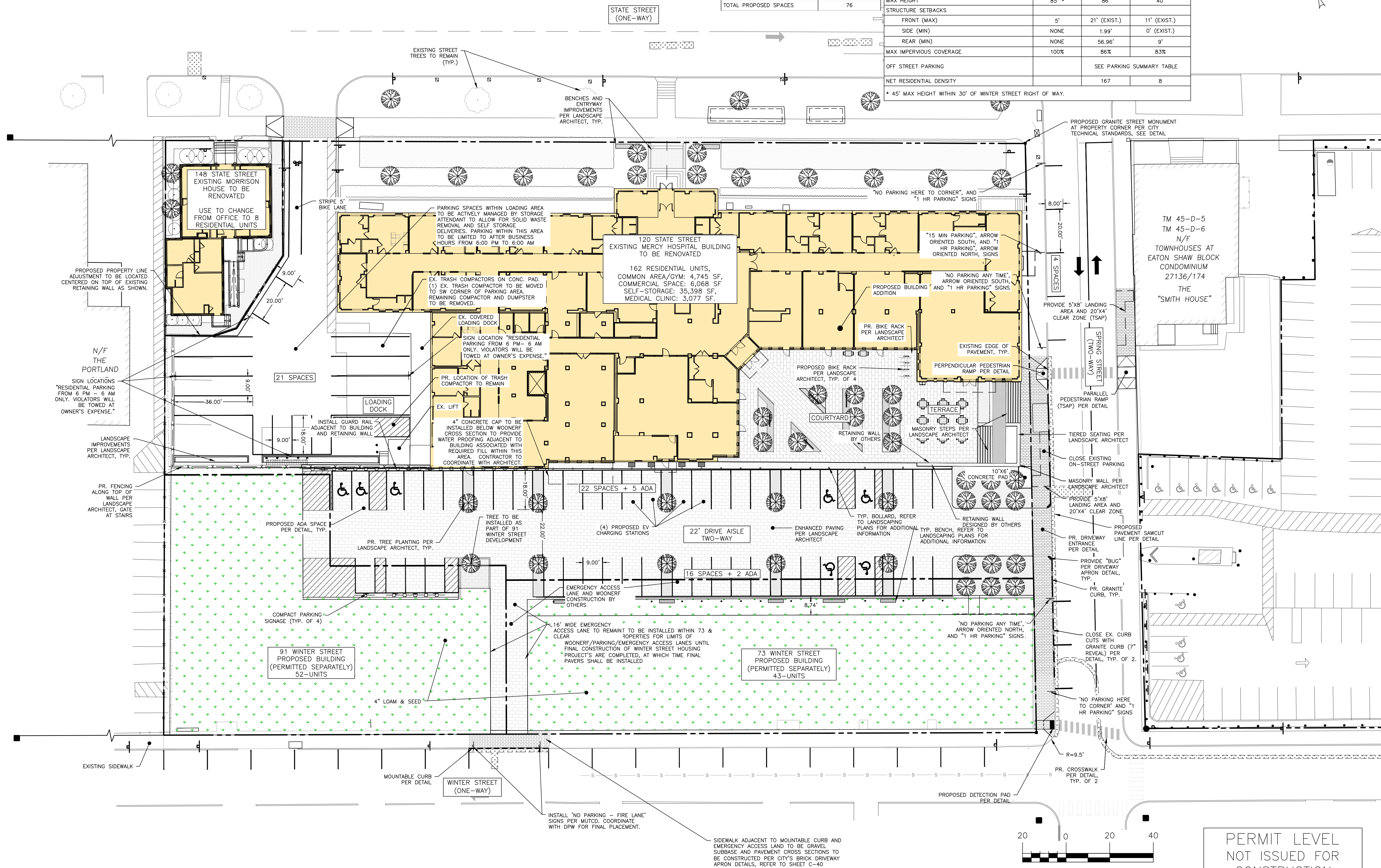
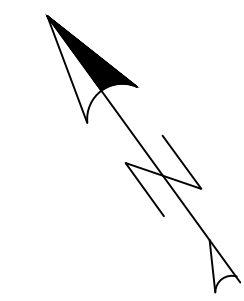
GENERAL NOTES:

1. IF CONSTRUCTION FOR THE SEPARATE WINTER STREET BUILDING LOTS HAS NOT COMMENCED BY SEPTEMBER 15, 2023, IMPROVEMENTS AS DEPICTED ON THIS PLAN SHALL BE IMPLEMENTED TO ENSURE PROPER SITE STABILIZATION, EMERGENCY ACCESS, PEDESTRIAN ACCESS, AND PARKING.

ON STREET PARKING SUMMARY			
	WINTER STREET	SPRING STREET	STATE STREET
EXISTING	17	0	0
PROPOSED	17	6	0

PARKING SUMMARY	
	# PARKING SPACES
EXISTING	59
STANDARD (9'X18')	59
COMPACT (9'X16')	4
ADA (8'X18')	7
NEW ON STREET (SPRING ST)	6
TOTAL PROPOSED SPACES	76

SPACE AND BULK STANDARDS			
ZONE: B-3	REQUIRED	PROPOSED	148 STATE STREET (MORRISON HOUSE)
MINIMUM LOT AREA	NONE	71,084 SF	4,379 SF
MIN LOT FRONTAGE	15'	340'	54'
MIN LOT WIDTH	NONE	242'	54'
MAX HEIGHT	85' *	86'	40'
STRUCTURE SETBACKS			
FRONT (MAX)	5'	21' (EXIST.)	11' (EXIST.)
SIDE (MIN)	NONE	1.99'	0' (EXIST.)
REAR (MIN)	NONE	56.96'	9'
MAX IMPERVIOUS COVERAGE	100%	86%	83%
OFF STREET PARKING		SEE PARKING SUMMARY TABLE	
NET RESIDENTIAL DENSITY		167	8
* 45' MAX HEIGHT WITHIN 30' OF WINTER STREET RIGHT OF WAY.			



ISSUED FOR
CITY REVIEW
COMMENT RESPONSE
PB MEETING
PB SUBMISSION
CITY COMMENTS

BY
DATE
PFI
11/15/20
PFI
2/16/21
PFI
7/22/21
PFI
7/23/21
PFI
8/16/21

SITE PLAN

MERCY HOSPITAL REDEVELOPMENT

NEWHEIGHT REDFERN, LLC

217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

ACORN ENGINEERING, INC.

1140_CIVIL

1140

AS NOTED

PFI

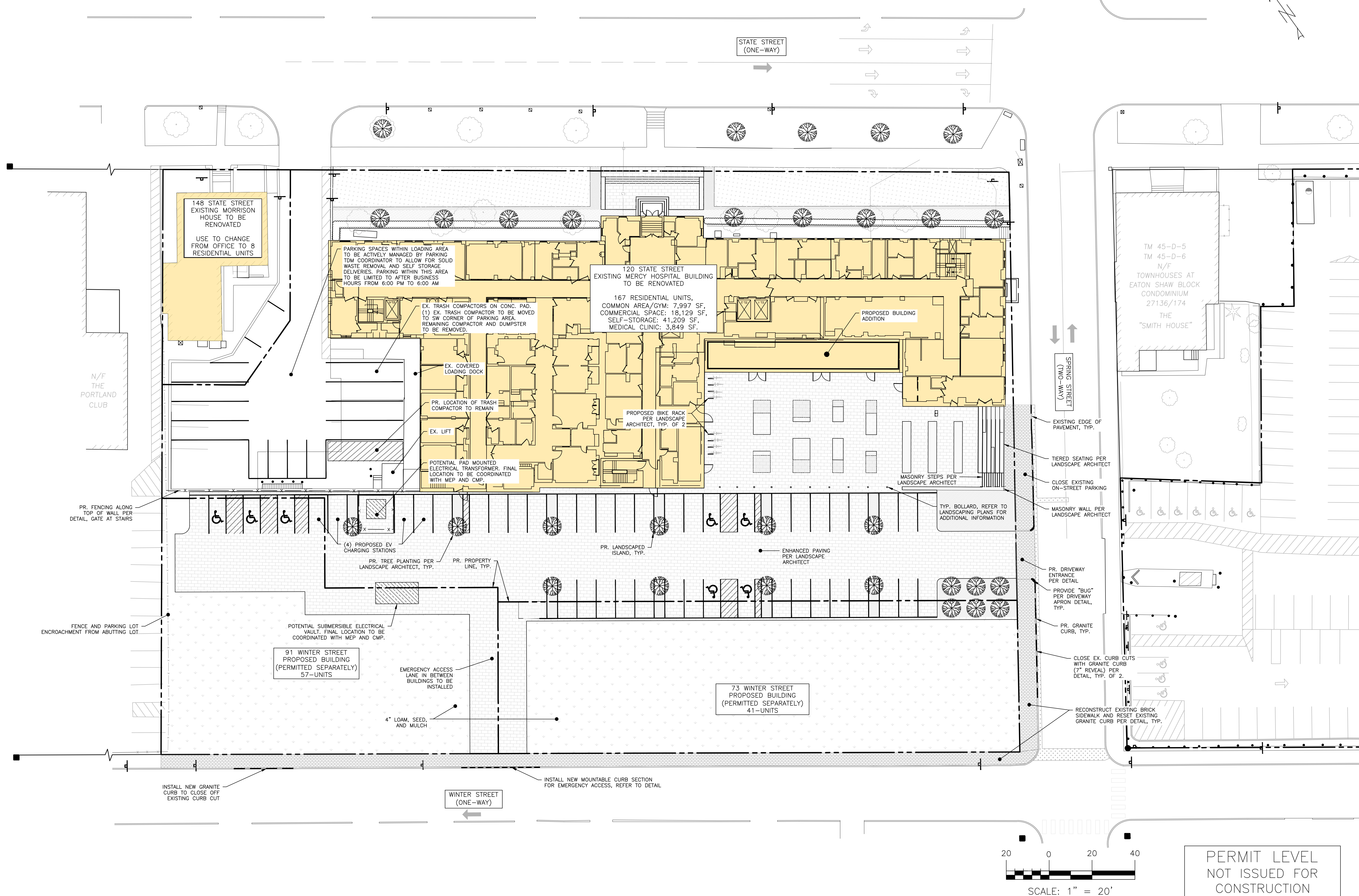
KRB

WHS

STATE OF MAINE
PETER F. HEIL
16318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

GENERAL NOTES:
1. IF CONSTRUCTION FOR THE SEPARATE WINTER STREET BUILDING LOTS HAS NOT COMMENCED BY SEPTEMBER 15, 2023, IMPROVEMENTS AS DEPICTED ON THIS PLAN SHALL BE IMPLEMENTED TO ENSURE PROPER SITE STABILIZATION, EMERGENCY ACCESS, PEDESTRIAN ACCESS, AND PARKING.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
CITY REVIEW	DATE
	11/10/20

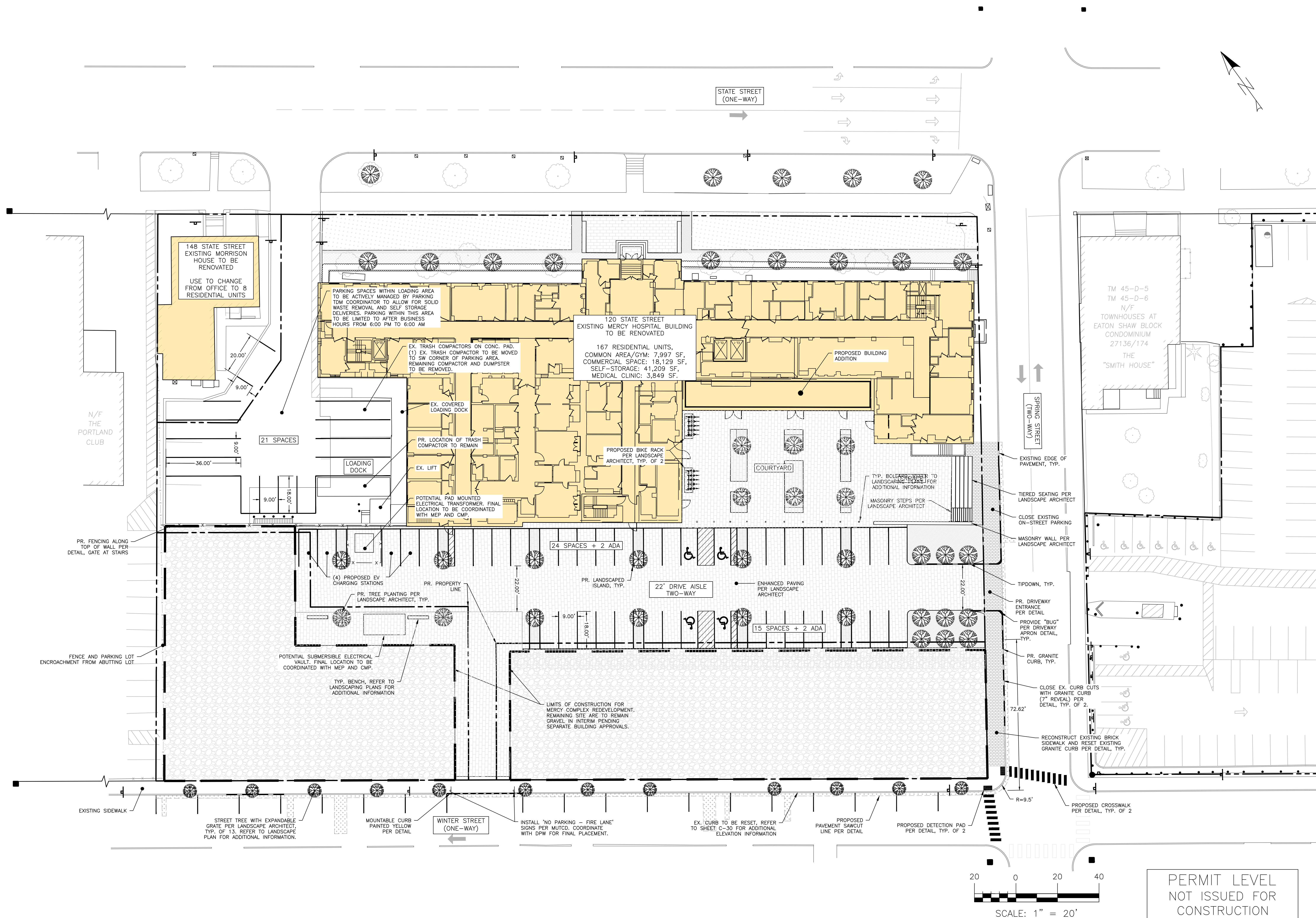
SITE PLAN - INTERIM	
PROJECT NAME/ ADDRESS:	
MERCY HOSPITAL REDEVELOPMENT	
CLIENT/OWNER OF RECORD:	
NEWHEIGHT REDFERN, LLC	
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101	

DRAWING NAME:	
ENGINEERING, INC.	
ACORN ENGINEERING, INC.	
PO BOX 3372, PORTLAND MAINE 04101	
(207) 775-2655	

FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS

PETER F. HEIL	
No. 15318	
11/10/20	

DRAWING NO.
C-11



ISSUED FOR	BY
SITE PLAN APP.	PFT
	9/10/20

DRAWING NAME	PROJECT NAME/ ADDRESS	CLIENT/OWNER OF RECORD
SITE PLAN - LIMITS OF CONSTRUCTION	MERCY HOSPITAL REDEVELOPMENT	NEWHEIGHT REDFERN, LLC
		217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFT
DRAWN BY:	KRB
CHECKED BY:	WHS

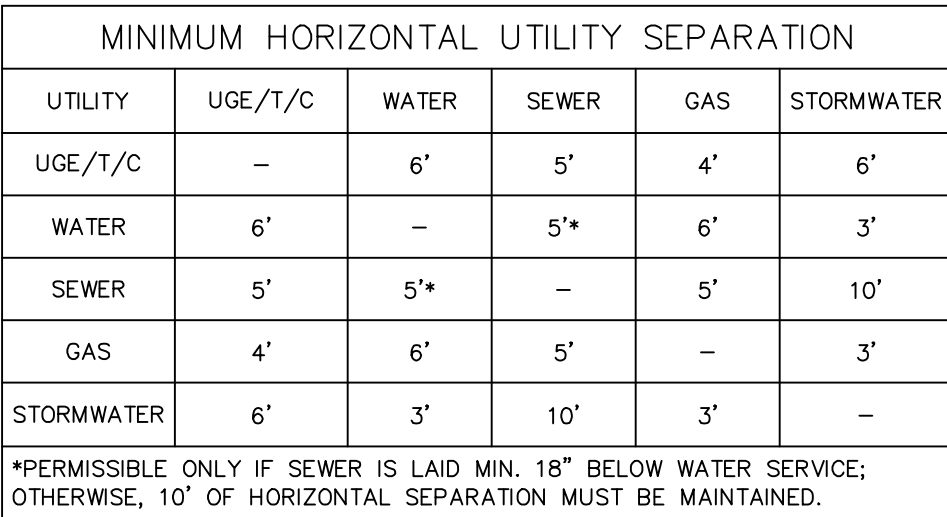
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

PETER F. HEIL No. 15318 LICENSED
9/10/20

DRAWING NO.
C-11

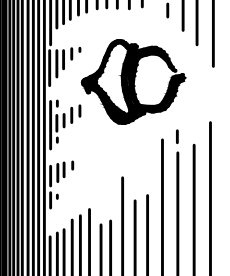
1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIATION FROM PLANS IS NOTED.
2. CONTRACTOR SHALL BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR CORRECT. CONTRACTOR SHALL VERIFY ALL INFORMATION WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE IF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES OR CHANGES TO EXISTING UTILITIES, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, AROUND ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY CITY OF PORTLAND.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE INSTALLED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH SEWER. SEWER CONTRACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
- 5.1. EXISTING SEWER & STORM INFRASTRUCTURE QUANTITY OBTAINED FROM PORTLAND STORM & SEWER SHOP FILES, DATED 06/15/2017.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE PROVIDED BY CONTRACTOR. CONTRACTOR TO VERIFY PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH CITY OF PORTLAND STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND GAS UTILITY CONTRACTOR TO BE DETERMINED BY M.E.P. AND IN ACCORDANCE WITH UNIFIT.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. CONTRACTOR TO PROVIDE TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONNECTION SHALL COMPLY WITH CEC CODEBOOK OR STANDARD REQUIREMENTS. MOST RECENT EDITION SHALL BE SUBJECT TO FINAL APPROVAL FROM CMP.
- 8.1. SECONDARY ELECTRICAL SERVICES SERVING THE MERCY HOSPITAL BUILDING, MORRISON HOUSE, CHOW SENIOR & CHEN FAMILY BUILDING, AND CHEN SENIOR BUILDING SHALL BE REPRESENTATION. FINAL DESIGN PER BENNETT ENGINEERING. CONTRACTOR TO COORDINATE WITH CMP & MP ON ELECTRICAL REDUCTION REQUIREMENTS.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. PER THE CITY'S OF PORTLAND DEED, OF PUBLIC WORKS, STATE STREET IS SCHEDULED TO BE PAVED IN 2022. UTILITY WORK, INCLUDING THE INSTALLATION OF UTILITY WORK WITHIN STATE STREET SHOULD BE COMPLETED IN 2021.



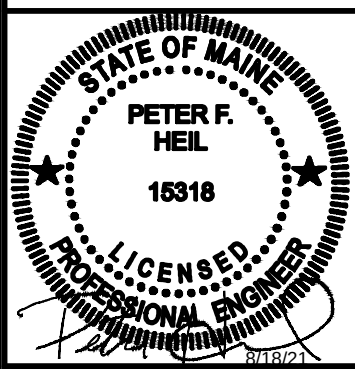
ISSUED FOR	BY DATE
ABILITY TO SERVE	PFH 8/28/20
SITE PLAN APP.	PFH 9/10/20
CITY REVIEW	CFH 11/10/20
CHOM CITY REVIEW	PFH 12/4/20
PWD REVIEW	PFH 2/25/21
CMP REVIEW	PFH 3/11/21
COMMENT RESPONSE	PFH 5/19/21
PB MEETING	PFH 6/22/21
PWD REVIEW	PFH 7/1/21
PB SUBMISSION	PFH 7/23/21
CITY COMMENTS	PFH

UTILITY PLAN

DRAWING NAME:

R N
ENGINEERING, INC. 3

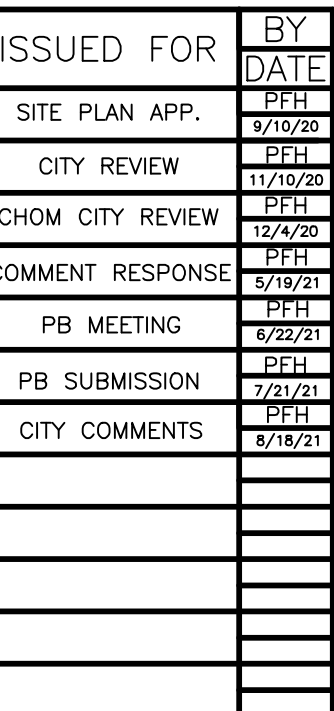
FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS



DRAWING NO.

C-20

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CURB.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL CLARITY ONLY.
6. RESET SIDEWALK AS NEEDED TO MAINTAIN SMOOTH WALKING SURFACE PER CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.



GRADING PLAN

MERCY HOSPITAL REDEVELOPMENT

PROJECT NAME/
ADDRESS:R N
ENGINEERING INC -

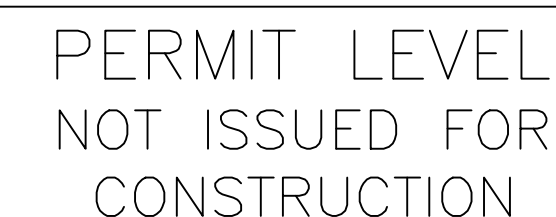
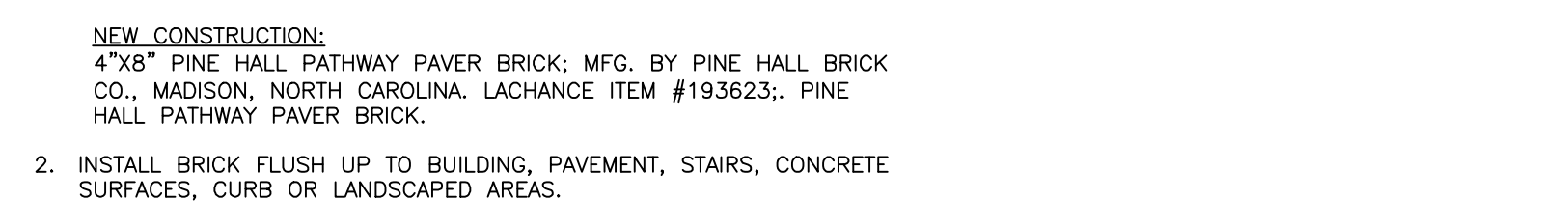
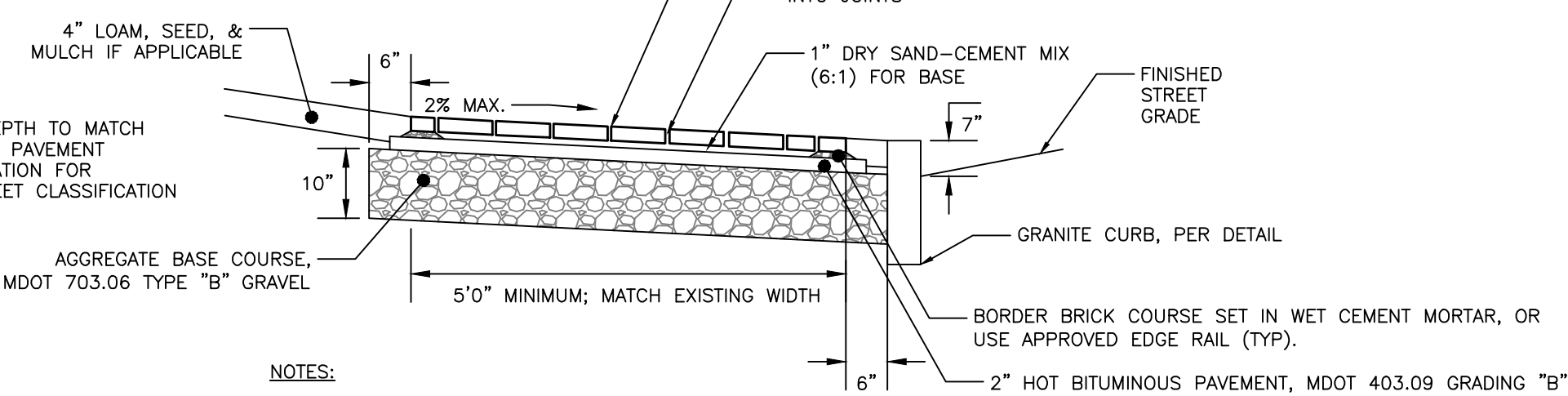
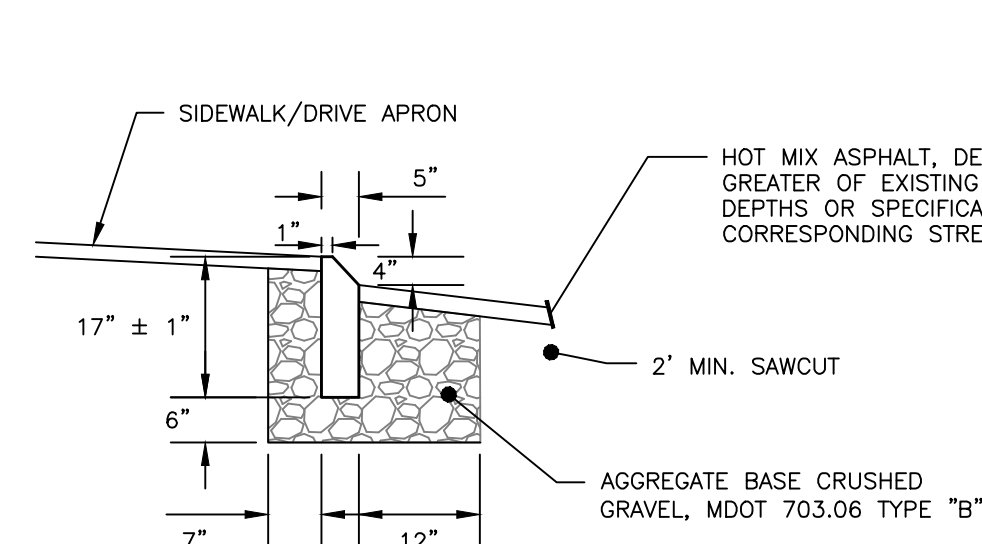
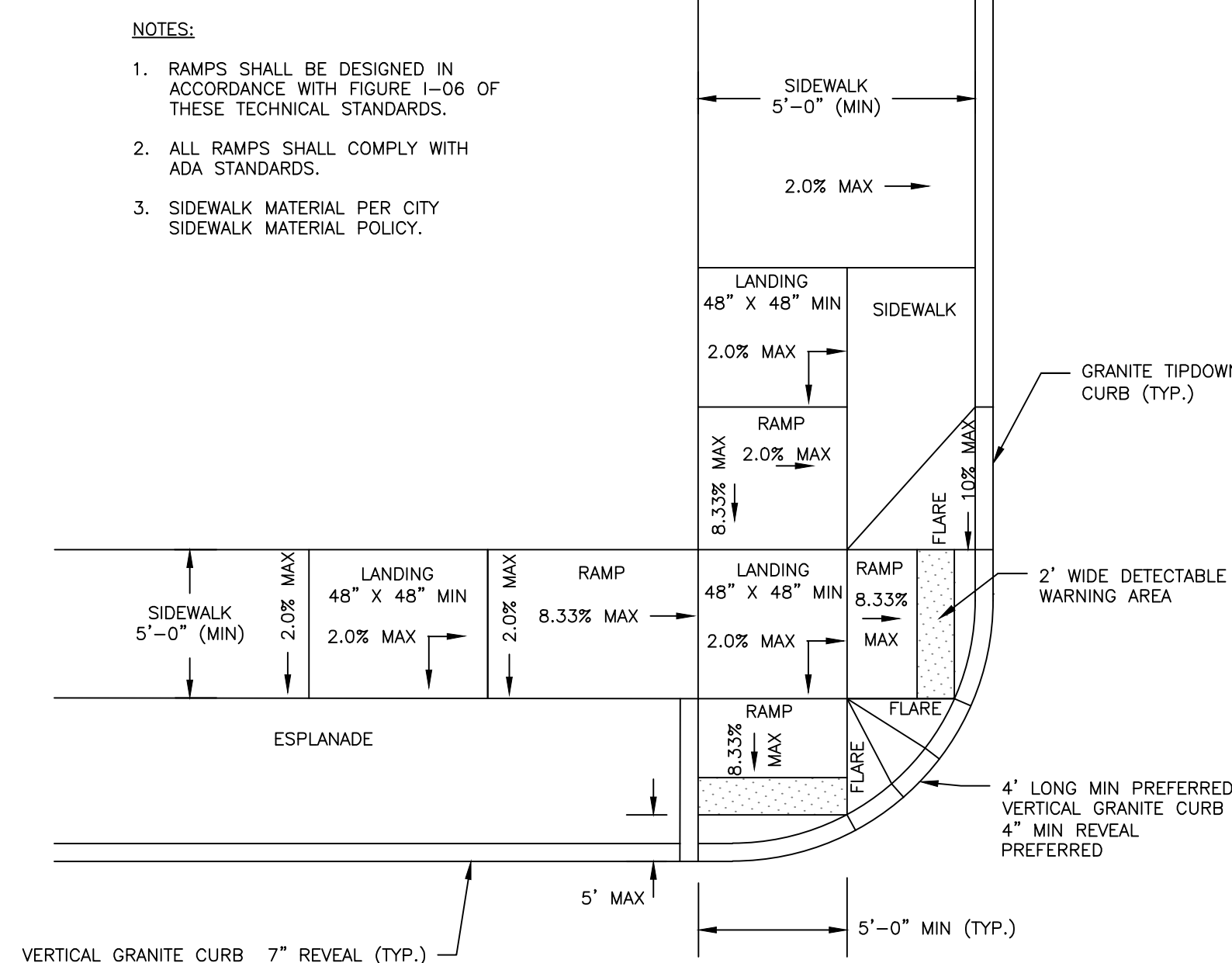
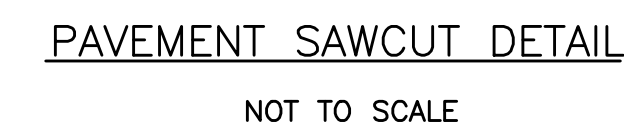
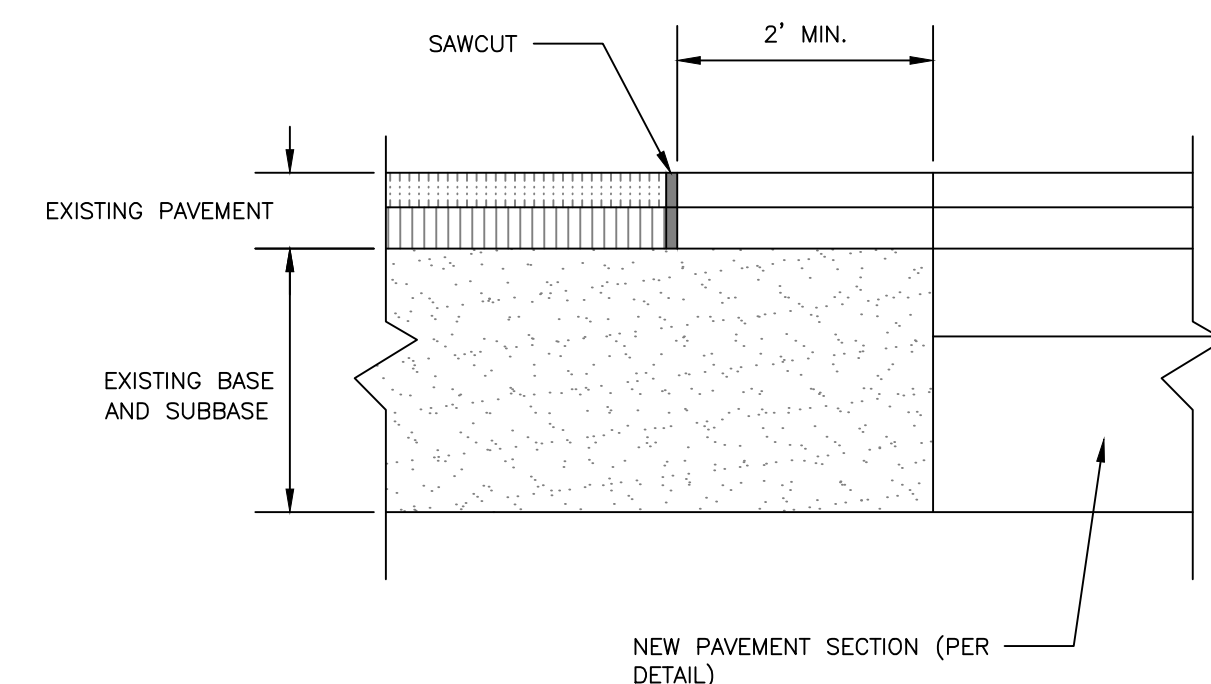
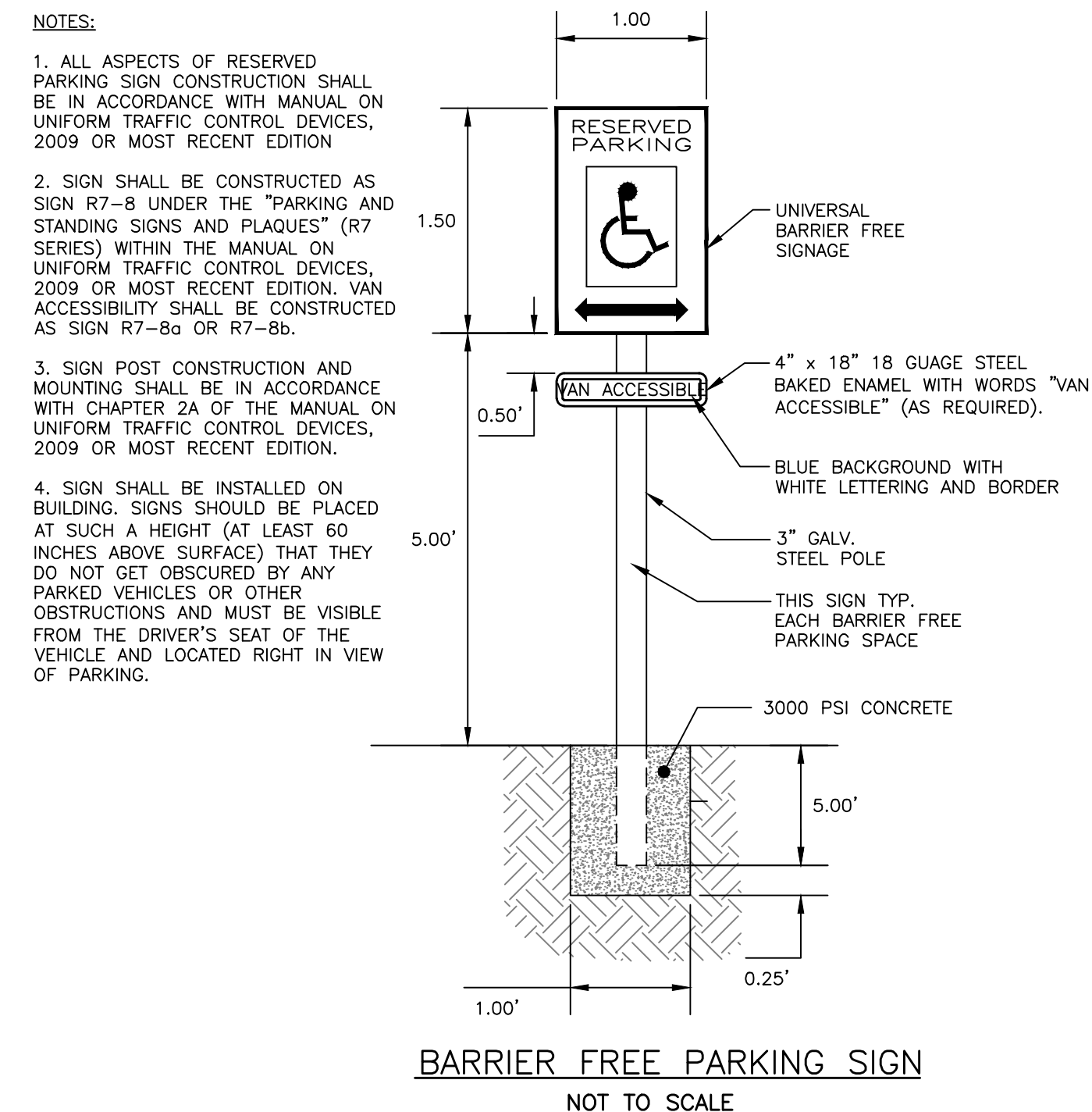
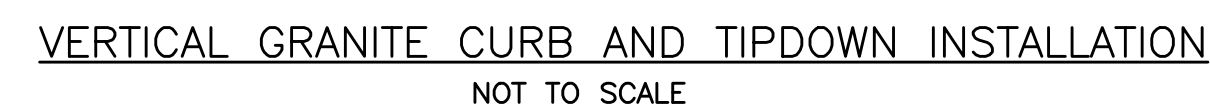
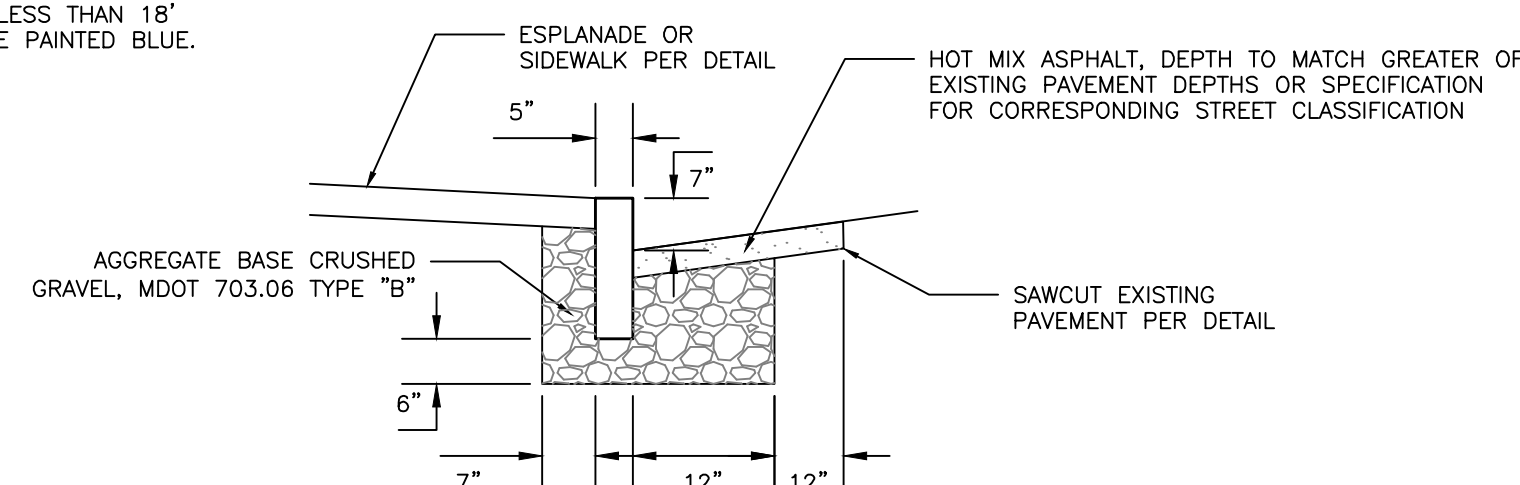
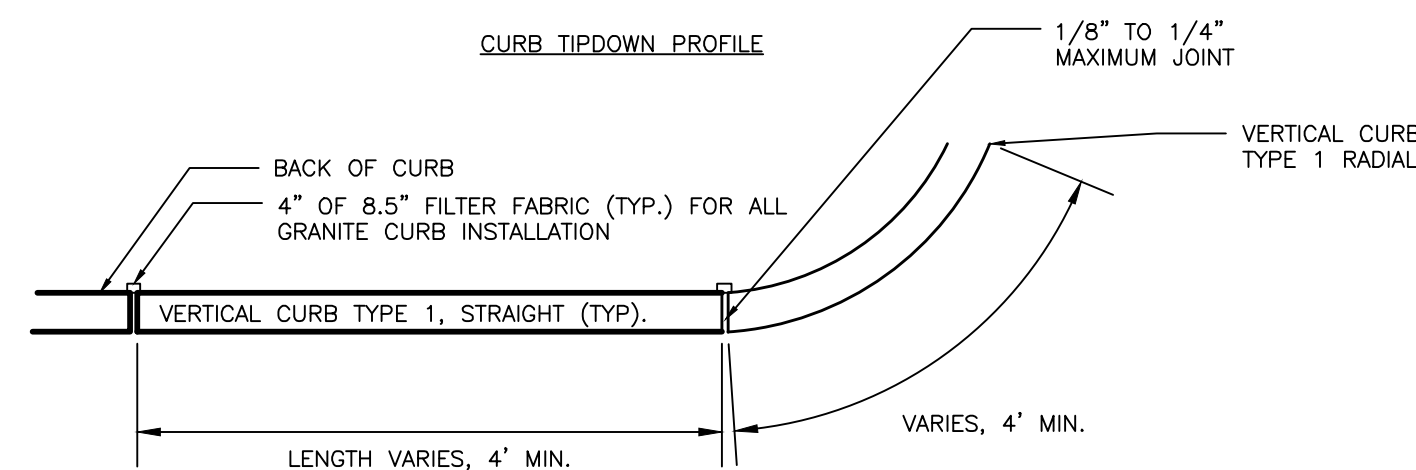
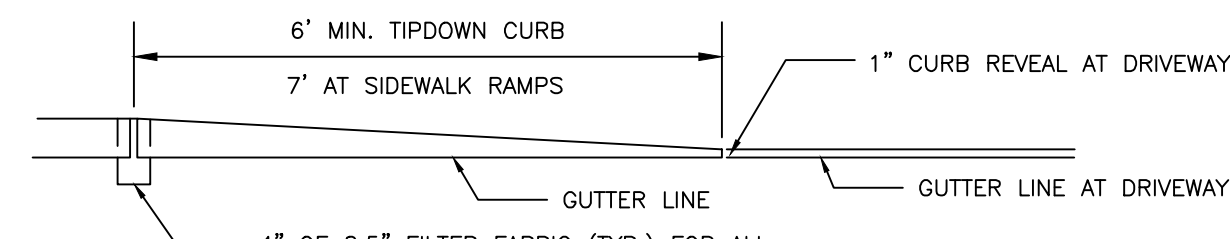
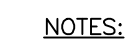
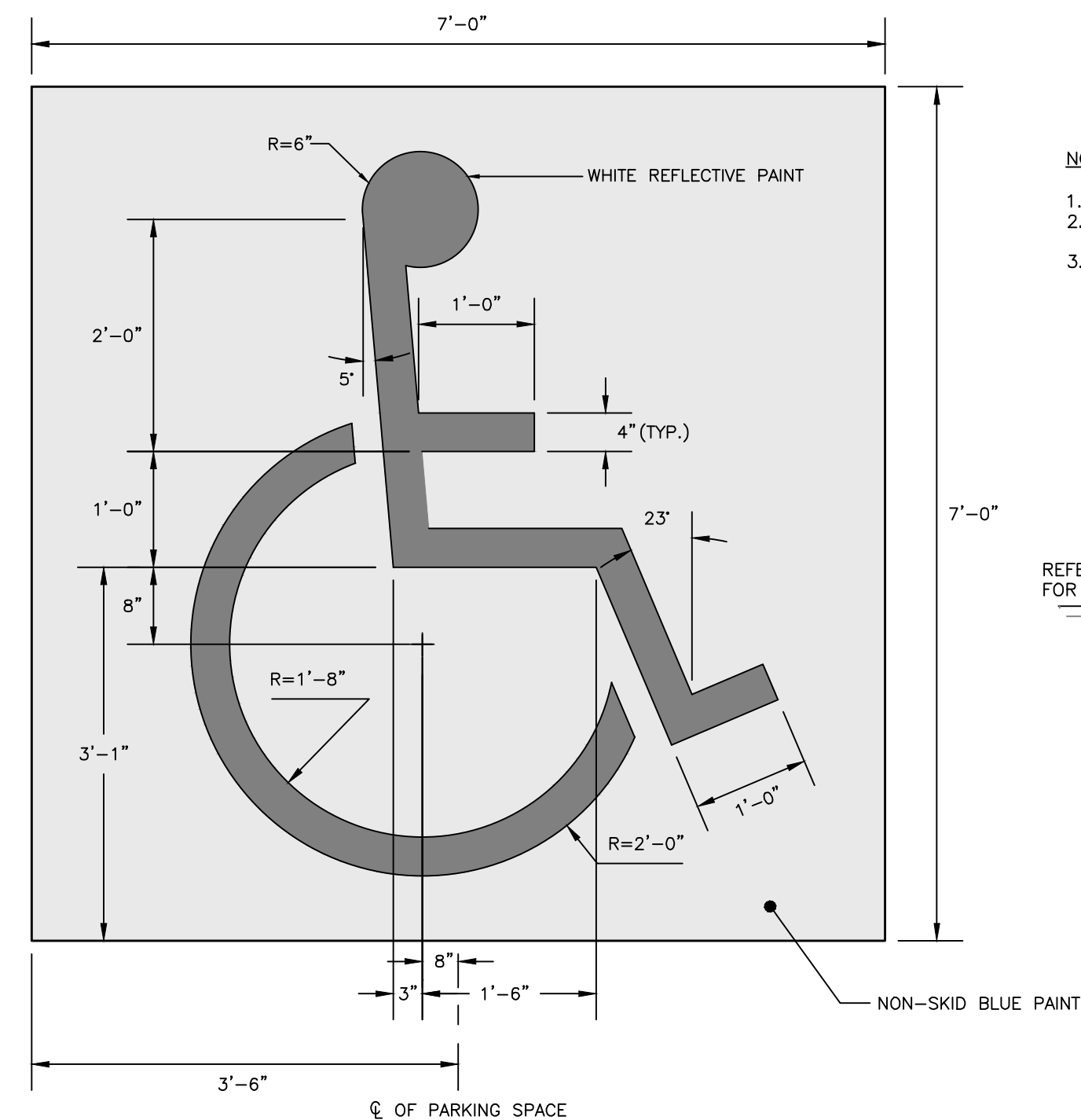
AC C

FILE:	1140_CIVIL
IN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS



DRAWING NO.

C-30



[illegible]

SITE DETAILS - 2

MERCY HOSPITAL REDEVELOPMENT

OWNER OF RECORD:
NEWHEIGHT REDFERN, LLC
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

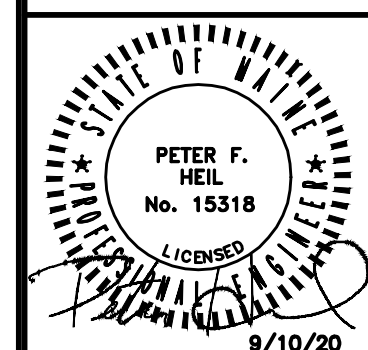
DRAWING NAME:

PROJECT NAME/
ADDRESS:

ENGINEERING, INC.

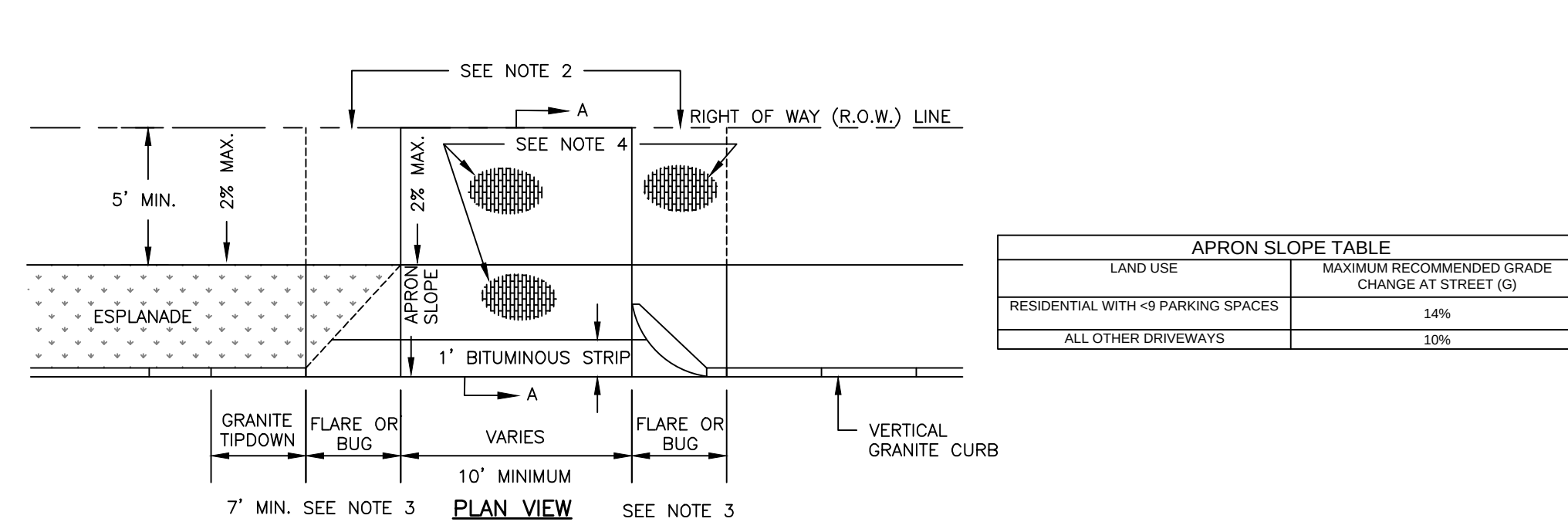
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS

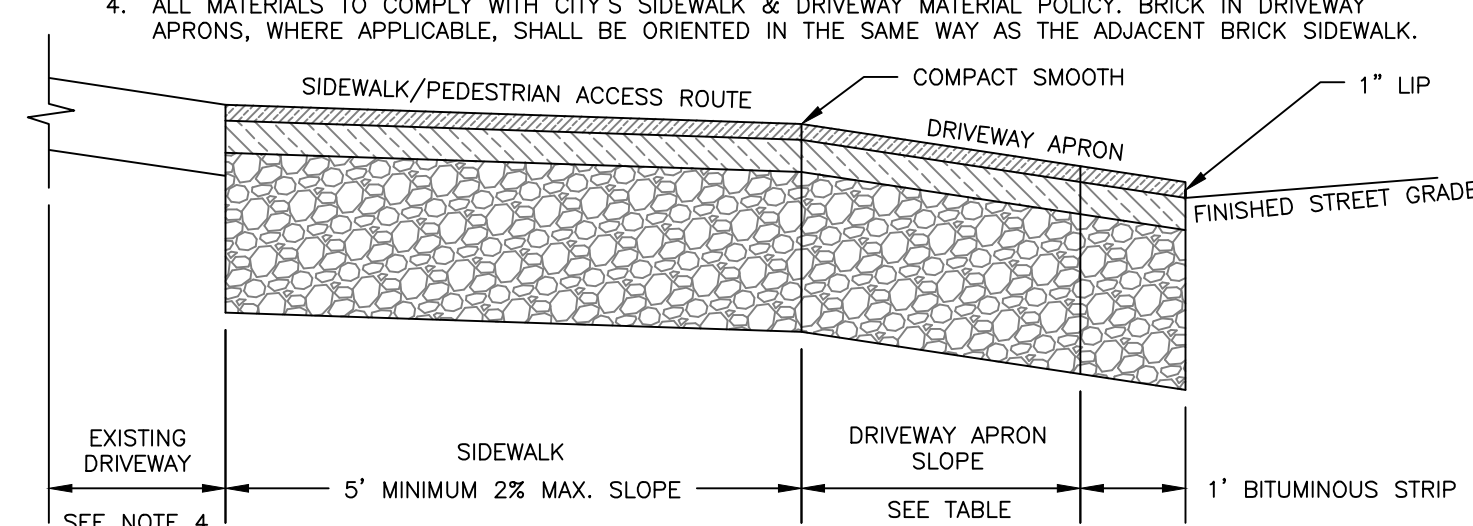


DRAWING NO.

C-41

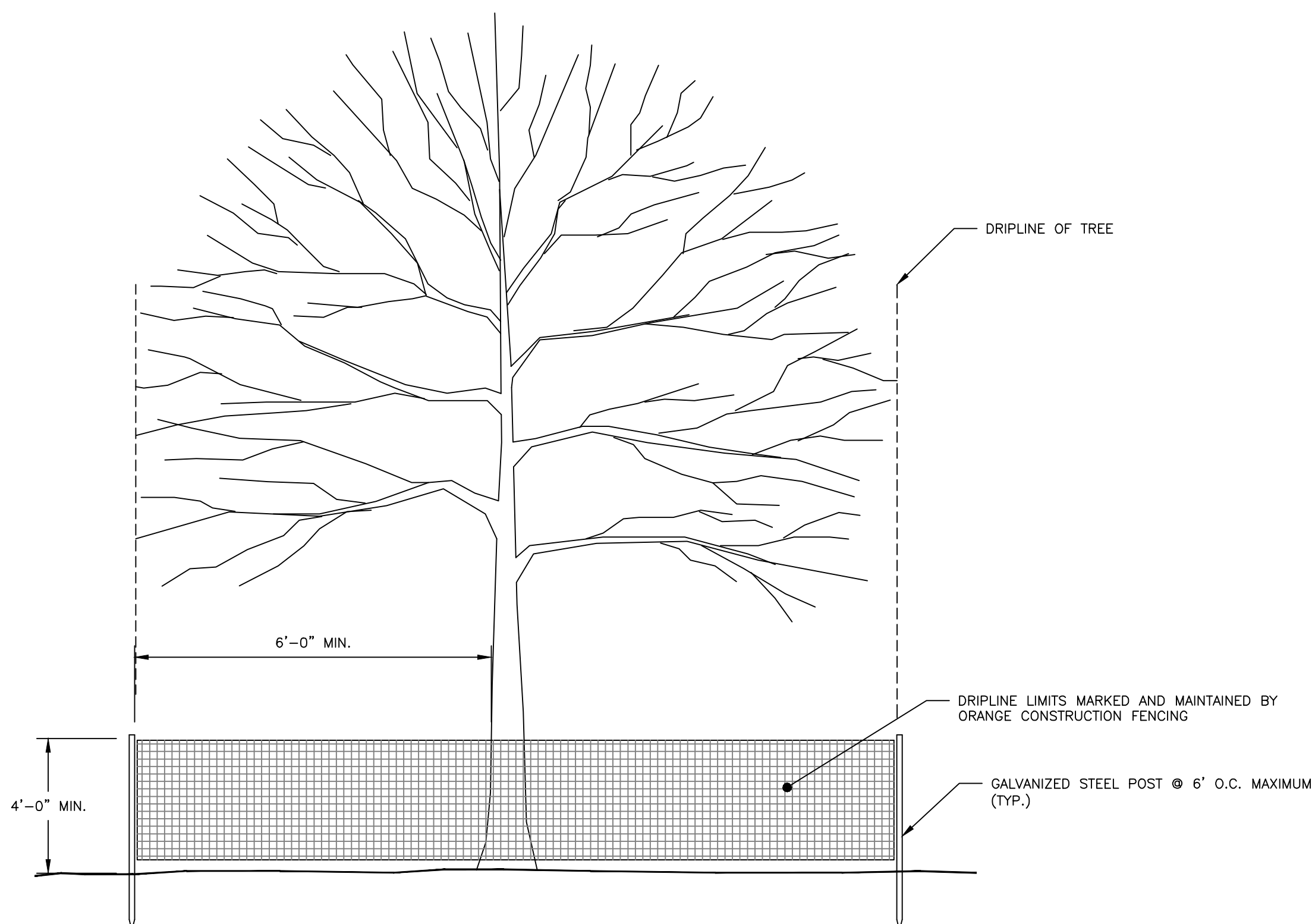


- NOTES:**
1. MATCH EXISTING GRADE AT R.O.W. LINE. WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
 2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
 3. TWO-FOOT RADIUS CORNER GRANITE PIA ("BUGS") ARE REQUIRED AT LOW-VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
 4. ALL MATERIALS TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHEN APPLICABLE, SHALL BE USED. THE ADVISORY BRICK SIDEWALK



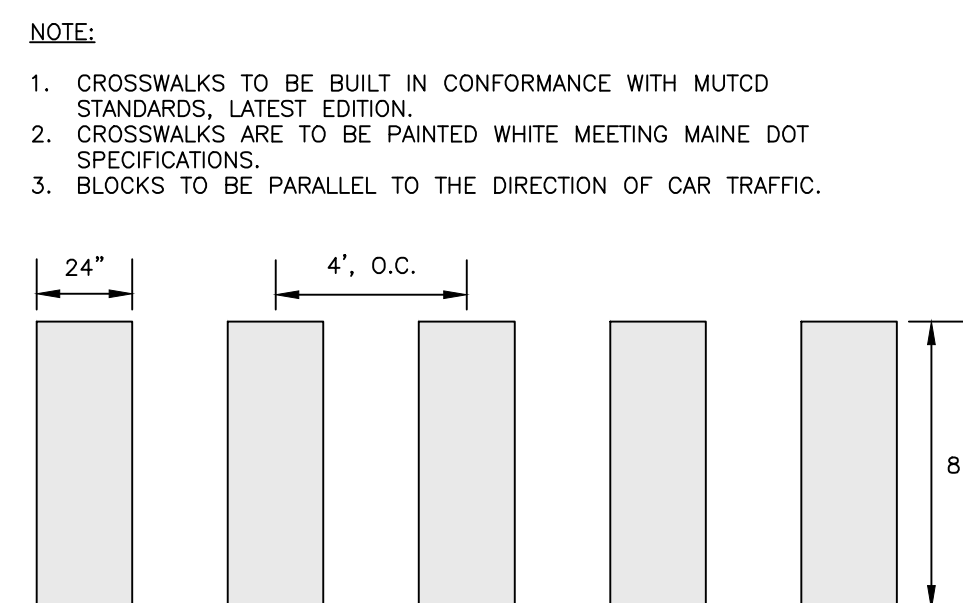
SECTION A-A

DRIVEWAY APRON
NOT TO SCALE

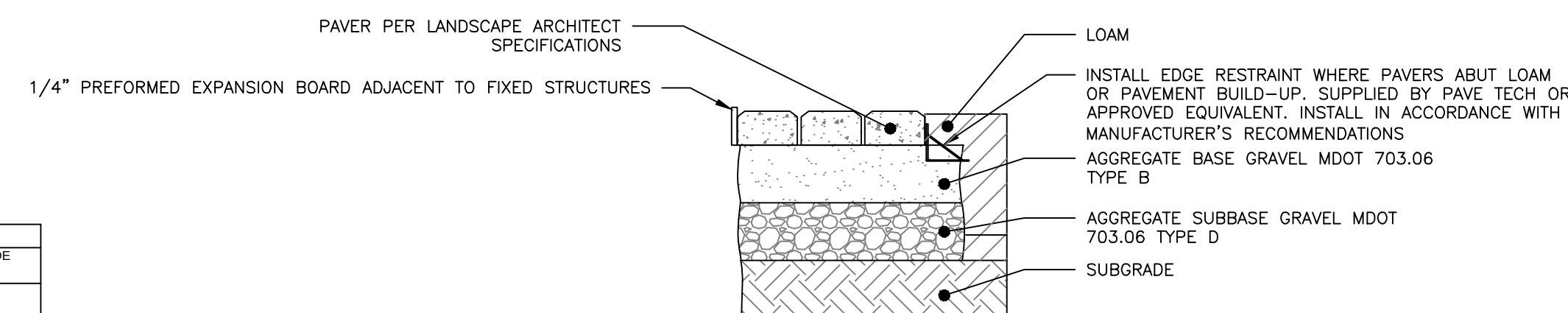


- NOTES:**
1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
 2. INSTALL PROTECTIVE FENCING TO LIMIT OF DRIPLINE ON TREE OR A MINIMUM OF 6' FROM TRUNK WHEN NECESSARY, WITH PRIOR PERMISSION OF LANDSCAPE ARCHITECT.
 3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
 4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.

TREE PROTECTION DETAIL
NOT TO SCALE



BLOCK CROSSWALK
NOT TO SCALE



- NOTES:
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
 2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.

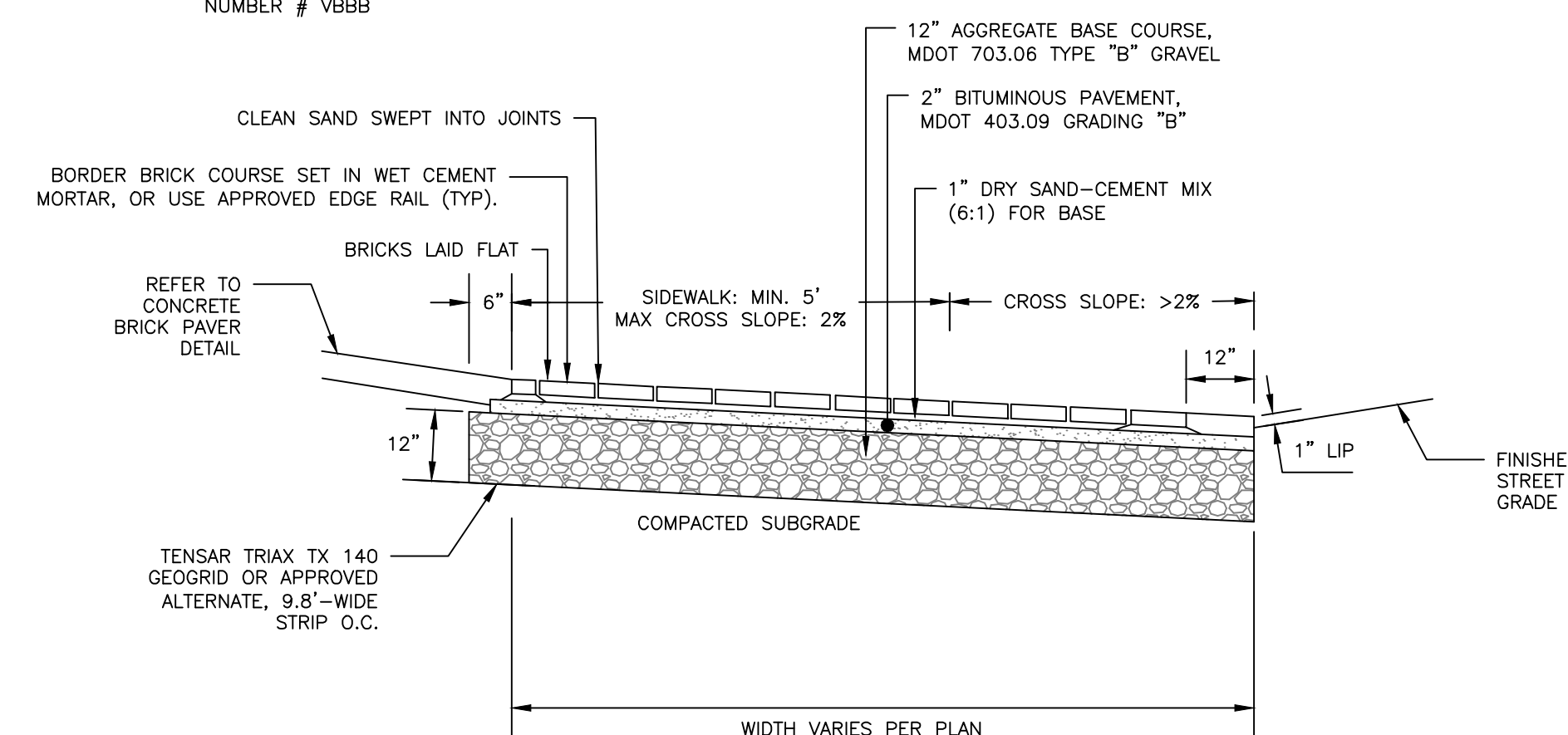
THICKNESS OF LAYERS	
STANDARD	LAYERS
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

PAVER PROFILE
NOT TO SCALE

BRICKS TO BE USED:

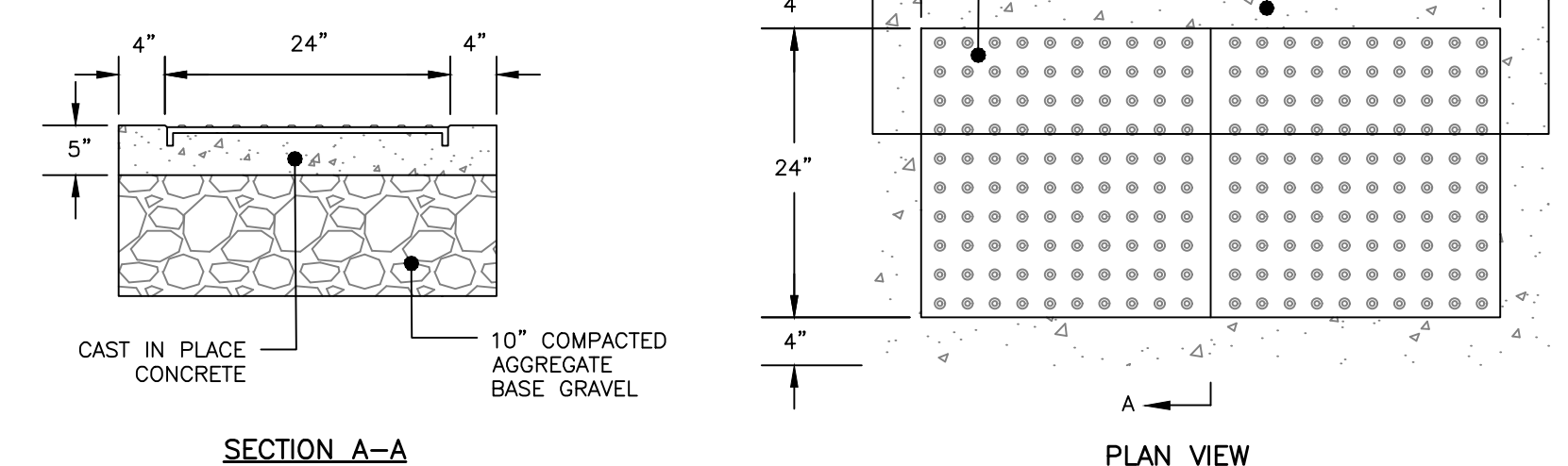
NEW CONSTRUCTION:
4"x8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623;. PINE HALL PATHWAY PAVER BRICK.

REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS;
VERMONT PAVER; SUPPLIED BY GAGNE AND SONS.
SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM
NUMBER # VBBB



BRICK DRIVEWAY APRON WITH BITUMINOUS BASE DETAIL
NOT TO SCALE

- NOTES:**
1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
 2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE. MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
 3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
 4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
 5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



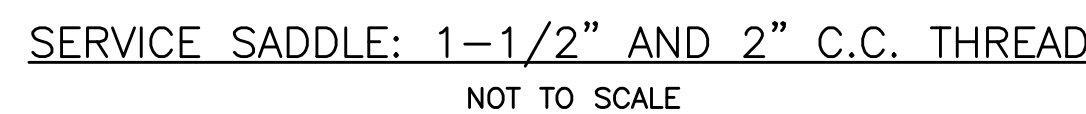
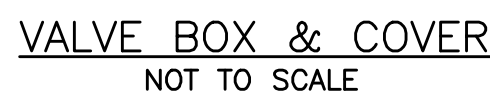
SECTION A-A

PLAN VIEW

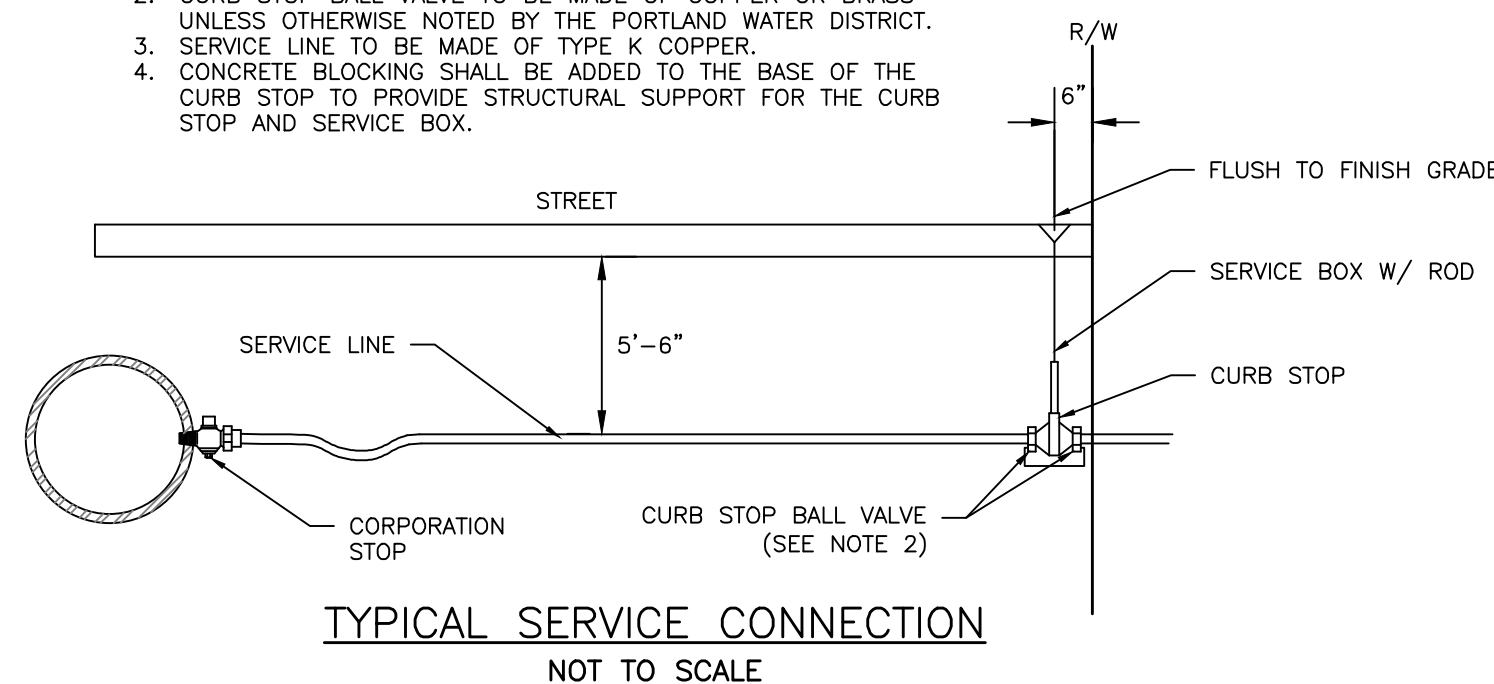
SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

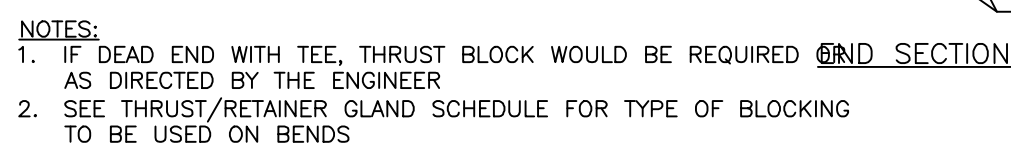
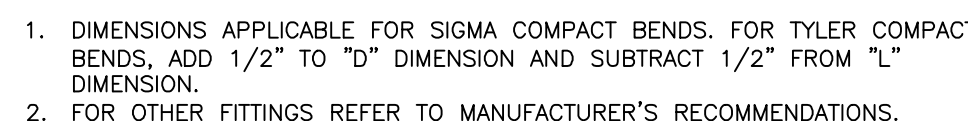
1. DIMENSIONS APPLICABLE FOR 5 1/4" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



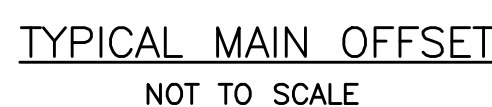
1. ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
2. CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
3. SERVICE LINE TO BE MADE OF TYPE K COPPER.
4. CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.



TAPPING SLEEVE AND VALVE
NOT TO SCALE



THRUST BLOCKING: REGULAR BEND
NOT TO SCALE



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

	6" PIPE			8" PIPE			12" PIPE		
H	D	L	D	L	D	L	D	L	
12'	1' 6-1/2"	0' 10-1/2"	1' 7-1/2"	0' 9-1/2"	1' 11-1/2"	0' 5-1/2"			
13'	1' 7-1/2"	0' 11-7/8"	1' 8-1/2"	0' 10-7/8"	2' 0'-1/2"	0' 6-7/8"			
14'	1' 8-1/2"	1' 1-5/16"	1' 9-1/2"	1' 0-5/16"	2' 1-1/2"	0' 8-5/16"			
15'	1' 9-1/2"	1' 2-1/16"	1' 10-1/2"	1' 1-1/16"	2' 2-1/2"	0' 10-1/16"			
16'	1' 10-1/2"	1' 4'-7/8"	1' 11-1/2"	1' 3'-1/8"	2' 3-1/2"	0' 11-7/8"			
17'	1' 11-1/2"	1' 5-9/16"	2' 0'-1/2"	1' 4-9/16"	2' 4'-1/2"	0' 1-9/16"			
18'	2' 0'-1/2"	1' 6-15/16"	2' 1-1/2"	1' 5-15/16"	2' 5-1/2"	1' 1-15/16"			
19'	2' 1-1/2"	1' 8-1/2"	2' 2-1/2"	1' 7-1/2"	2' 6-1/2"	1' 3-1/2"			
20'	2' 2-1/2"	1' 9-13/16"	2' 3-1/2"	1' 8-13/16"	2' 7-1/2"	1' 4'-13/16"			
21'	2' 3-1/2"	1' 11-3/16"	2' 4-1/2"	1' 10-3/16"	2' 8-1/2"	1' 6-3/16"			
22'	2' 4-1/2"	2' 0-5/8"	2' 5-1/2"	1' 11-5/8"	2' 9-1/2"	1' 7-5/8"			
23'	2' 5-1/2"	2' 2'-1/8"	2' 6'-1/2"	2' 1'-1/8"	2' 10'-1/2"	1' 8-7/8"			
24'	2' 6'-1/2"	2' 3'-7/16"	2' 7'-1/2"	2' 2'-7/16"	2' 11-1/2"	1' 10'-7/16"			
25'	2' 7'-1/2"	2' 4'-7/8"	2' 8-1/2"	2' 3'-7/8"	3' 0'-1/2"	1' 11-7/8"			
26'	2' 8-1/2"	2' 6'-1/4"	2' 9'-1/2"	2' 5-1/4"	3' 1'-1/2"	1' 11-1/4"			
27'	2' 9'-1/2"	2' 7'-1/2"	2' 10'-1/2"	2' 6-1/2"	3' 2'-1/2"	1' 12-1/2"			
28'	2' 10'-1/2"	2' 9-1/8"	2' 11-1/2"	2' 8-1/8"	3' 3'-1/2"	2' 4'-1/8"			
29'	2' 11-1/2"	2' 10-1/2"	3' 0'-1/2"	2' 9-1/2"	3' 4'-1/2"	2' 5-1/2"			
30'	3' 0'-1/2"	2' 11-15/16"	3' 1'-1/2"	2' 10-15/16"	3' 5'-1/2"	2' 6-15/16"			
31'	3' 1'-1/2"	2' 12-1/2"	3' 2'-1/2"	2' 11-1/2"	3' 6'-1/2"	2' 7-1/2"			
32'	3' 2'-1/2"	3' 2'-3/4"	3' 3'-1/2"	3' 1'-3/4"	3' 7'-1/2"	2' 9-3/4"			
33'	3' 3'-1/2"	3' 4'-3/16"	3' 4'-1/2"	3' 3'-3/16"	3' 8'-1/2"	2' 11-3/16"			
34'	3' 4'-1/2"	3' 5-8/16"	3' 5'-1/2"	3' 4'-9/16"	3' 9'-1/2"	3' 0-9/16"			
35'	3' 5'-1/2"	3' 6'-1/2"	3' 6'-1/2"	3' 5'-1/2"	3' 10'-1/2"	3' 2'			
36'	3' 6'-1/2"	3' 8-7/16"	3' 7'-1/2"	3' 7-7/16"	3' 11-1/2"	3' 3'-7/16"			
37'	3' 7'-1/2"	3' 9-13/16"	3' 8-1/2"	3' 8-13/16"	4' 0'-1/2"	3' 4'-13/16"			
38'	3' 8-1/2"	3' 11-1/4"	3' 9-1/2"	3' 10-1/4"	4' 1'-1/2"	3' 6-1/4"			
39'	3' 9-1/2"	4' 0'-13/16"	3' 10-1/2"	3' 11-13/16"	4' 2'-1/2"	3' 7-13/16"			
40'	3' 10-1/2"	4' 2'-1/16"	3' 11-1/2"	4' 1'-1/16"	4' 3'-1/2"	3' 9-1/16"			
41'	3' 11-1/2"	4' 3'-1/2"	4' 0'-1/2"	4' 2'-1/2"	4' 4'-1/2"	3' 10-1/2"			
42'	4' 0'-1/2"	4' 4'-1/2"	4' 1'-1/2"	4' 3'-1/2"	4' 5'-1/2"	3' 11-1/2"			
43'	4' 1'-1/2"	4' 5'-1/8"	4' 2'-1/2"	4' 4'-1/8"	4' 6'-1/2"	3' 12-1/8"			
44'	4' 2'-1/2"	4' 7'-3/4"	4' 3'-1/2"	4' 6'-3/4"	4' 7'-1/2"	4' 2'-3/4"			
45'	4' 3'-1/2"	4' 9-1/8"	4' 4'-1/2"	4' 8-1/8"	4' 8'-1/2"	4' 4'-1/8"			
46'	4' 4'-1/2"	4' 10-9/16"	4' 5'-1/2"	4' 9-9/16"	4' 9'-1/2"	4' 5-9/16"			
47'	4' 5'-1/2"	4' 11-1/16"	4' 6'-1/2"	4' 10-1/16"	4' 10'-1/2"	4' 6-1/16"			
48'	4' 6'-1/2"	5' 1'-3/8"	4' 7'-1/2"	5' 0'-3/8"	4' 11-1/2"	4' 8-3/8"			
49'	4' 7'-1/2"	5' 2-13/16"	4' 8-1/2"	5' 1-13/16"	5' 0'-1/2"	4' 9-13/16"			
50'	4' 8'-1/2"	5' 4'-3/16"	4' 9'-1/2"	5' 3-3/16"	5' 1'-1/2"	4' 11-3/16"			
51'	4' 9'-1/2"	5' 5'-1/2"	4' 10'-1/2"	5' 4-1/2"	5' 2'-1/2"	4' 13-1/2"			
52'	4' 10'-1/2"	5' 7'-1/16"	4' 11-1/2"	5' 6-1/16"	5' 3'-1/2"	5' 2-1/16"			
53'	4' 11-1/2"	5' 8'-7/16"	5' 0'-1/2"	5' 7-7/16"	5' 4'-1/2"	5' 3-7/16"			
54'	5' 0'-1/2"	5' 9-7/16"	5' 1'-1/2"	5' 8-7/16"	5' 5'-1/2"	5' 4-7/16"			
55'	5' 1'-1/2"	5' 10'-1/2"	5' 2'-1/2"	5' 9-1/2"	5' 6'-1/2"	5' 5-1/2"			

[illegible]

UTILITY DETAILS - 1

MERCY HOSPITAL REDEVELOPMENT

TOWNER OF RECORD: NEWHEIGHT REDFERN, LLC
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

DRAWING NAME:

PROJECT NAME/
ADDRESS:

CLIENT/OWNER OR

217 CC

R N
ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

FILE: 1140 CIVIL

JN: 1140

SCALE: AS NOTED

DESIGNED BY: PFH

DRAWN BY: KRB

CHECKED BY: WHS



The seal of the State of Washington is partially visible at the top of the page. It features a circular design with the words "STATE OF WASHINGTON" around the perimeter. In the center, there is a figure of a Native American holding a bow and arrow, with a star above his head.

STANDARD TIME

PETER F.
HEIL
No. 15318

OFFICE OF THE ATTORNEY GENERAL



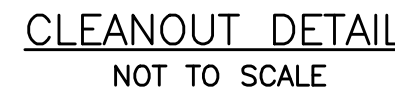
9/10/20

DRAWING NO.

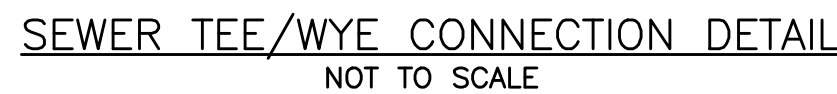
C-42

C-42

1. REFER TO THE UTILITY PLAN FOR ADDITIONAL INFORMATION



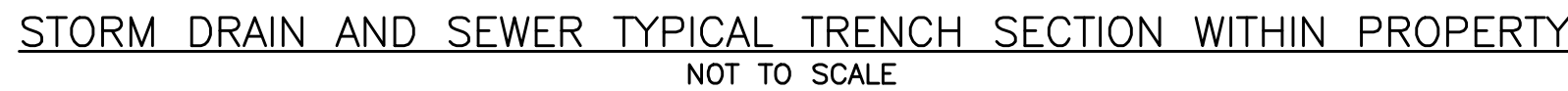
1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO STRUCTURE PLUMBING WITH ARCHITECTURAL CONTRACTOR.
3. CONNECTION OF PROPOSED SEWER LATERAL TO STRUCTURE PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.



1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
5. ALL STORM DRAINS SHALL BE PVC SD 36 IN PS-46 (RING OR) OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 - SANITARY SEWER AND STORM DRAIN, PART 2.5.2
6. PAVED AREAS SHALL BE HOT MIX ASPHALT OR CONCRETE TO MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND R.O.W.
8. STORM DRAIN COVER BETWEEN 2" AND 3" SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3" AND 4" SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
9. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION
10. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
11. DIMENSION C IS THE MINIMUM DEPTH FOR CALCULATED OR MEASURED QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



1. 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.
2. ALL TRENCHES DEEPER THAN 5' AND 3' SHALL INCLUDE 4" RIGID INSULATION COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES; ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
3. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
4. MINIMUM COVER
 - 4.1. 2'-0" - STORM DRAIN
 - 4.2. 5'-0" - SEWER
5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE LINE.
6. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW.
7. THICKNESS AS NOTED BY PLANTING DETAILS
8. ALL PROPOSED TREES PLANTED WITHIN 10' OF A STORM OR SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 10'.
9. THE PROPOSED LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT'S DRAWINGS.

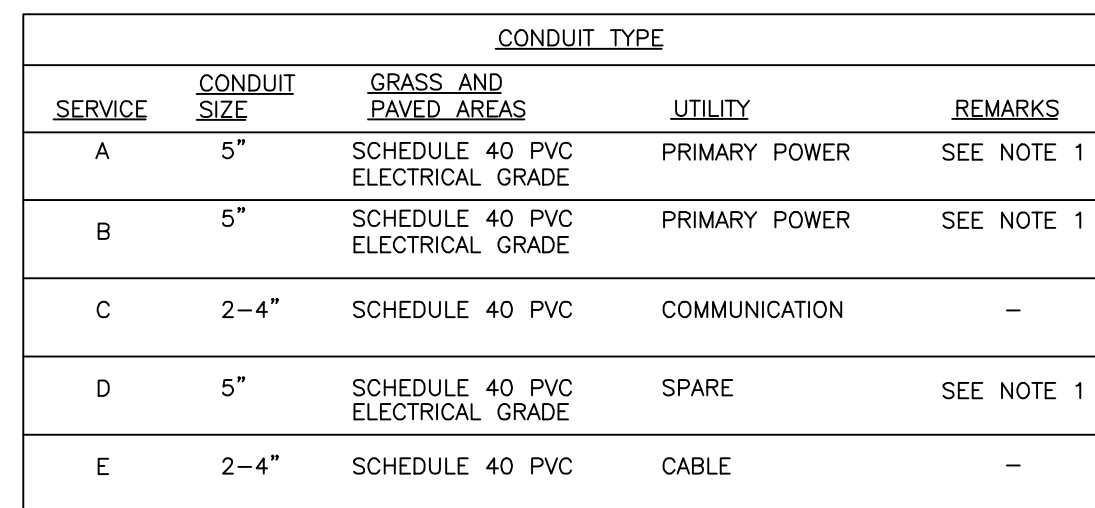
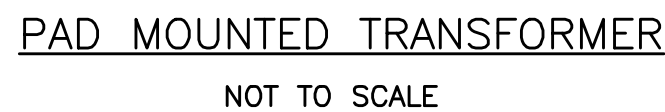


ALLOWABLE PIPE MATERIALS:

- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
- PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
- PVC RING TYPE SEWER PIPE MEETING ASTM F 789
- DUCTILE IRON PIPE (DIP)
- ADS N-12 HP TRIPLE-WALL MIN PS-46 RATING
- ADS SANITITE HP MIN. PS-46

NOTES:

1. WHERE DANGER OF PLOW OR TRAFFIC DAMAGE EXISTS, BARRIERS CONSISTING OF CONCRETE FILLING 6 INCH IPS STEEL POSTS SET AT 10 FEET SPACING SHALL BE PROVIDED FOR PROTECTION (PRESSURE TREATED 6X6 INCH MIN. TIMBER POSTS MAY BE SUBSTITUTED IN RESIDENTIAL AREAS). POSTS SHALL NOT INTERFERE WITH TRAFFIC ACCESS TO THE TRANSFORMER. BARRIERS SHALL BE LOCATED NEAR THE CORNERS OF THE TRANSFORMERS.
2. THE SETBACKS DEEPT CLEARANCES FROM OBSTRUCTIONS INCLUDING TREES, SHRUBS, AND FENCES.
3. THERE SHALL BE NO OBSTRUCTIONS TO THE BUILDING WALL IN BACK OF, BESIDE, OR OVER THE TRANSFORMER UNLESS THE TRANSFORMER IS A MIN. OF 10 FEET FROM THE BUILDING.
4. SIDE WIND PROTECTION FROM DOORS OR WINDOWS SHALL BE LESS THAN 10 FEET.
5. THERE SHALL BE A MIN. OF 10 FEET BETWEEN THE TRANSFORMER AND THE BUILDING.
6. THERE SHALL BE NO OBSTRUCTIONS TO THE BUILDING RELIEF VALVE, GAS VENT DISCHARGE, GAS FILLING CONNECTION, OR PROPANE TANK. SOME INSURANCE COMPANIES MAY REQUIRE UNBARRIRED CLEARANCES.
7. TRANSFORMERS SHALL BE LOCATED FAR ENOUGH AWAY FROM BUILDING OVERHANDS SO THAT THEY WILL NOT BE SUBJECT TO DAMAGE BY FALLING ICE AND SNOW.
8. IF THE TRANSFORMER IS LOCATED IMMEDIATELY UPON THE INSTALLATION OF THE CABLE IN THE PLD, THE DEVELOPER SHALL PROVIDE AND INSTALL A CMP APPROVED CONCRETE, STEEL, OR METALLURGICAL COVER OVER THE PLD OPENING TO ELIMINATE EXPOSURE OF THE CABLE.



1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
3. CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
4. FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.



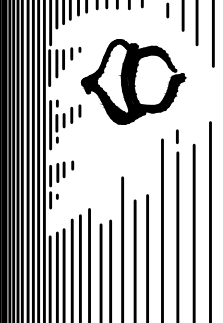
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

UTILITY DETAILS - 2

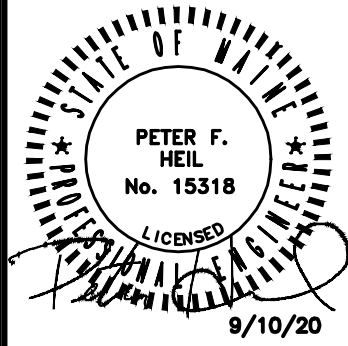
PROJECT NAME/
ADDRESS:

CORP: NEWHEIGHT REDFERN, LLC

OWNER OF RECORD: NEWHEIGHT REDFERN, LLC
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

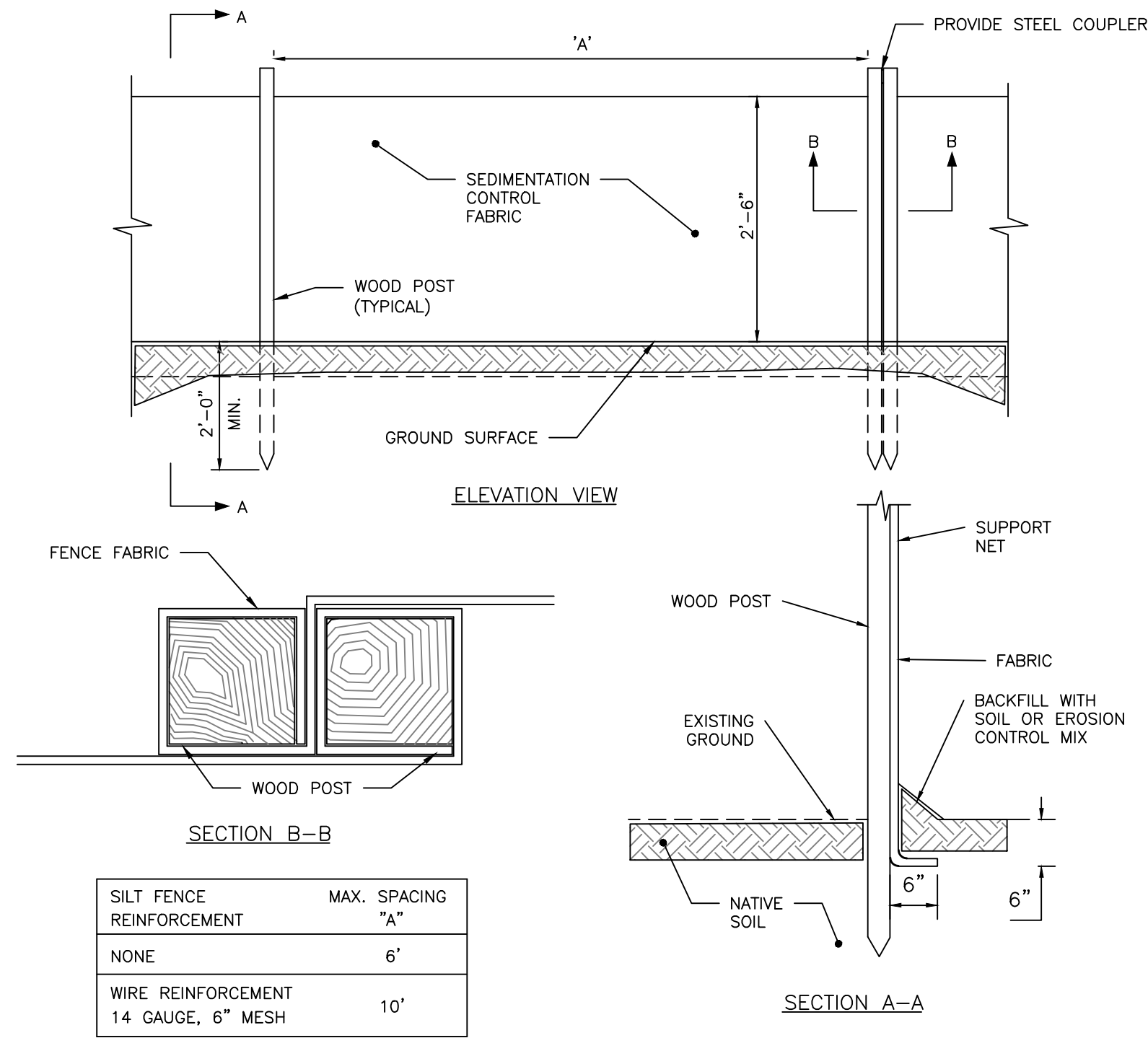
R N
ENGINEERING, INC. 3

FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS

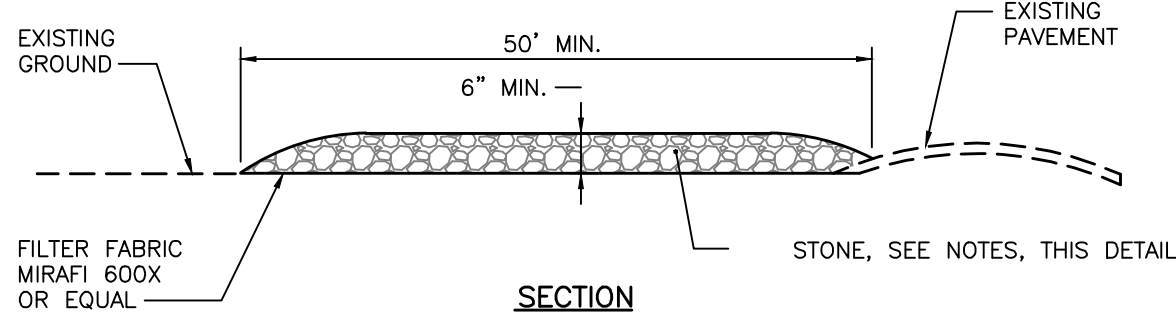
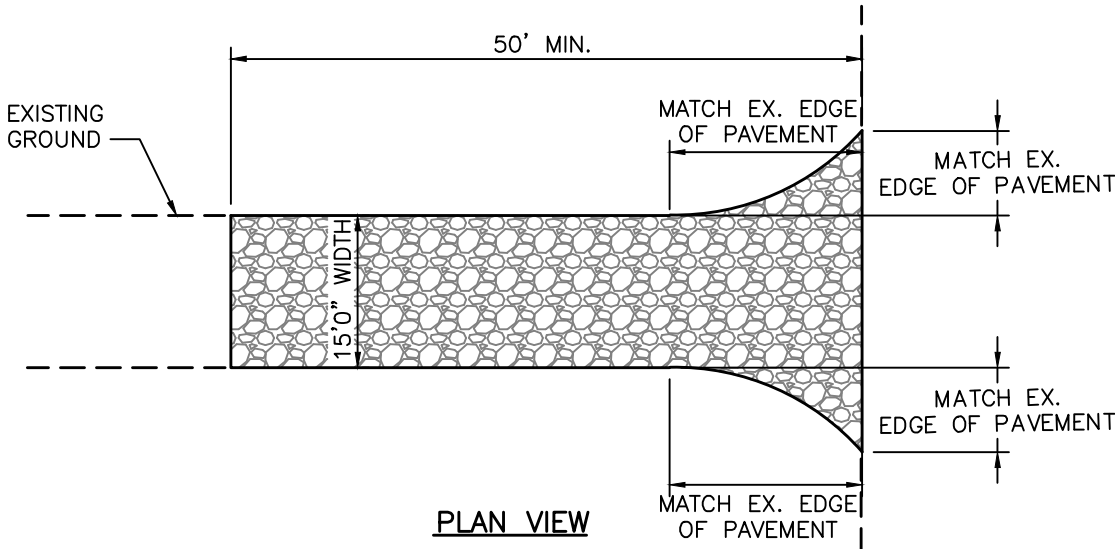


DRAWING NO.

C-43



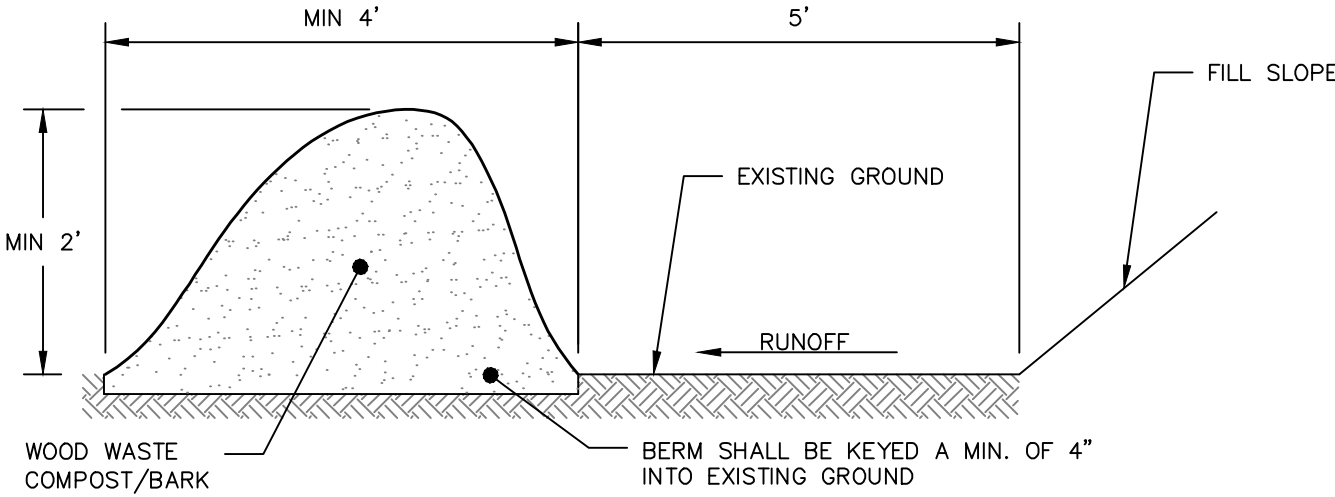
SILTATION FENCE DETAIL
NOT TO SCALE



- NOTES:
1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
 2. STONE SHALL BE 2"-3" COARSE AGGREGATE
 3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
 4. WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
 5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY

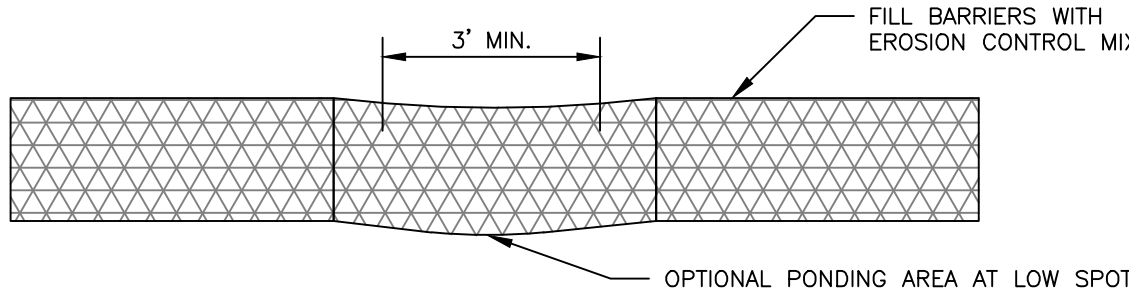
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

- NOTES:
1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DOT CHAPTER 700, SECTION 717.04(D):
 - 1.1. pH BETWEEN 5.0 - 8.0
 - 1.2. PARTICLE SIZE (BY WEIGHT):
 - 1.2.1. - 100% PASSING A 150 MM (6 IN) SCREEN
 - 1.2.2. 75 TO 85% PASSING A 19 MM (0.75 IN) SCREEN
 - 1.3. SOLUBLE SALTS CONTENT < 4.0 MMHOS/CM
 - 1.4. ORGANIC MATTER 20 TO 100% , DRY WEIGHT BASIS
 2. THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.
 3. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED OFFSITE OR BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.

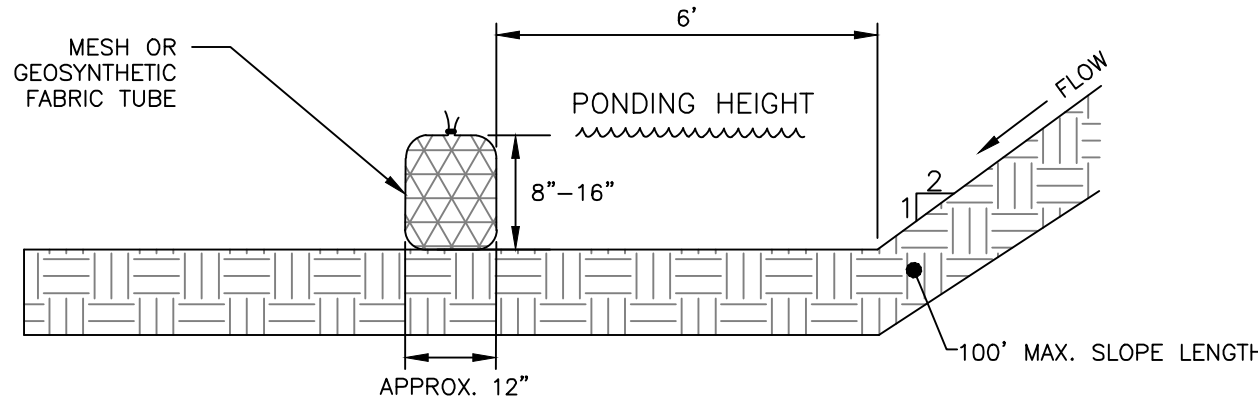


EROSION CONTROL MIX BERM DETAIL
NOT TO SCALE

- NOTES:
1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE - THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
 2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
 3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
 4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

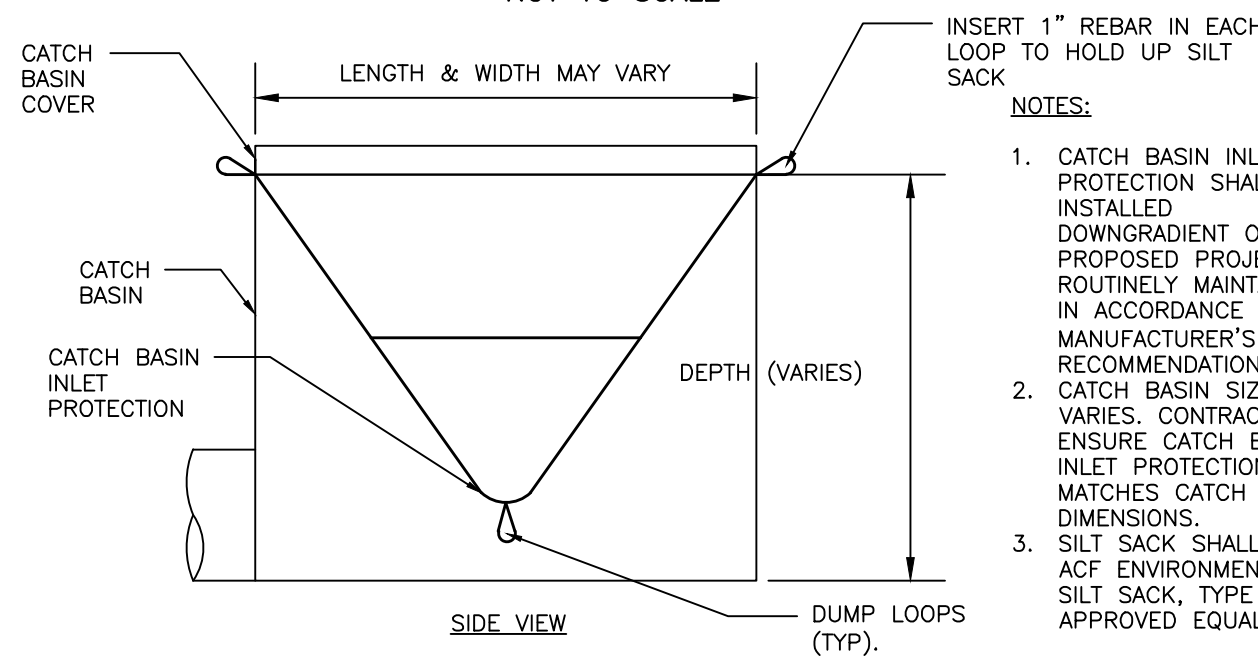


FRONT VIEW



SIDE VIEW

FILTER SOCK DETAIL
NOT TO SCALE



CATCH BASIN INLET PROTECTION
NOT TO SCALE

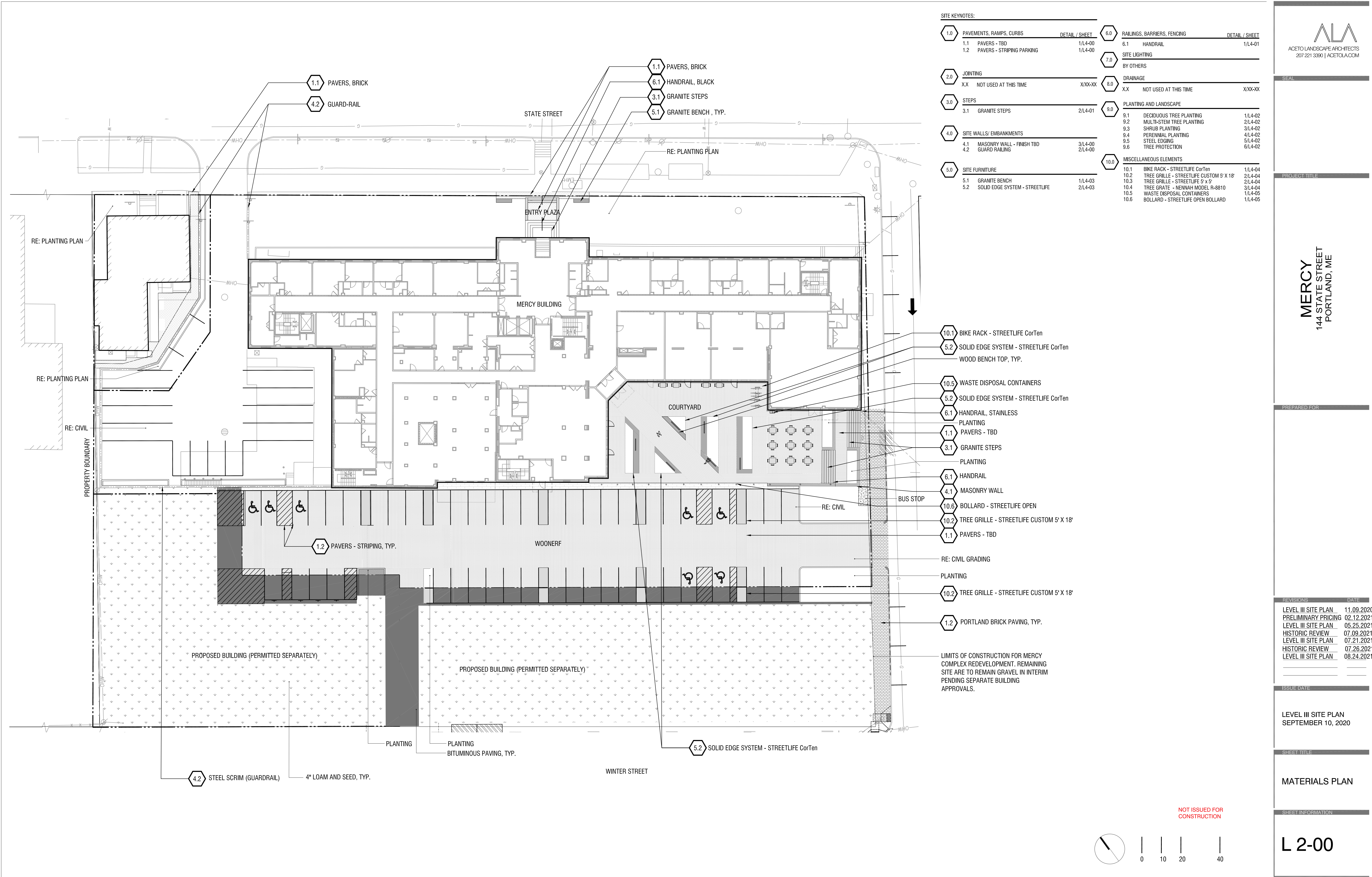
- NOTES:
1. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED DOWNGRADIENT OF PROPOSED PROJECT AND ROUTINELY MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
 2. CATCH BASIN SIZE VARIES. CONTRACTOR TO ENSURE CATCH BASIN INLET PROTECTION MATCHES CATCH BASIN DIMENSIONS.
 3. SILT SACK SHALL BE ACF ENVIRONMENTAL SILT SACK, TYPE A, OR APPROVED EQUAL.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PFH	DATE
SITE PLAN APP.	9/10/26
EROSION & SEDIMENTATION CONTROL DETAILS	
PROJECT NAME/ ADDRESS: MERCY HOSPITAL REDEVELOPMENT	
CLIENT/OWNER OF RECORD: NEWHEIGHT REDFERN, LLC	
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101	
DRAWING NAME: EROSION & SEDIMENTATION CONTROL DETAILS	
PROJECT NAME/ ADDRESS: MERCY HOSPITAL REDEVELOPMENT	
CLIENT/OWNER OF RECORD: NEWHEIGHT REDFERN, LLC	
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101	
ACORN ENGINEERING, INC. ENGINEERING, INC.	
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE THE SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.	
FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS
PETER F. HEIL No. 15318 LICENSED 9/10/20	
DRAWING NO. C-46	



L 0-00

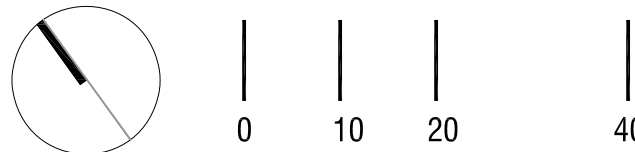


SITE KEYNOTES:					
		DETAIL / SHEET			DETAIL / SHEET
1.0	PAVEMENTS, RAMPS, CURBS		6.0	RAILINGS, BARRIERS, FENCING	
	1.1 PAVERS - TBD	1/L4-00		6.1 HANDRAIL	1/L4-01
	1.2 PAVERS - STRIPING PARKING	1/L4-00		7.0 SITE LIGHTING	
				BY OTHERS	
2.0	JOINTING		8.0	DRAINAGE	
	XX NOT USED AT THIS TIME	XXX-XX		XX NOT USED AT THIS TIME	XXX-XX
3.0	STEPS		9.0	PLANTING AND LANDSCAPE	
	3.1 GRANITE STEPS	2/L4-01		9.1 DECIDUOUS TREE PLANTING	1/L4-02
4.0	SITE WALLS/ EMBANKMENTS			9.2 MULTI-STEM TREE PLANTING	2/L4-02
	4.1 MASONRY WALL - FINISH TBD	3/L4-00		9.3 SHRUB PLANTING	3/L4-02
	4.2 GUARD RAILING	2/L4-00		9.4 PERENNIAL PLANTING	4/L4-02
				9.5 STEEL EDGING	5/L4-02
5.0	SITE FURNITURE			9.6 TREE PROTECTION	6/L4-02
	5.1 GRANITE BENCH	1/L4-03	10.0	MISCELLANEOUS ELEMENTS	
	5.2 SOLID EDGE SYSTEM - STREETLIFE	2/L4-03		10.1 BIKE RACK - STREETLIFE CorTen	1/L4-04
				10.2 TREE GRILLE - STREETLIFE CUSTOM 5' X 18'	2/L4-04
				10.3 TREE GRILLE - STREETLIFE 5' x 5'	2/L4-04
				10.4 TREE GRATE - NENNAH MODEL R-8810	3/L4-04
				10.5 WASTE DISPOSAL CONTAINERS	1/L4-05
				10.6 BOLLARD - STREETLIFE OPEN BOLLARD	1/L4-05

- 10.1 BIKE RACK - STREETLIFE CorTen
- 5.2 SOLID EDGE SYSTEM - STREETLIFE CorTen
- WOOD BENCH TOP, TYP.
- 10.5 WASTE DISPOSAL CONTAINERS
- 5.2 SOLID EDGE SYSTEM - STREETLIFE CorTen
- 6.1 HANDRAIL, STAINLESS
- 1.1 PAVERS - TBD
- 3.1 GRANITE STEPS
- PLANTING
- 6.1 HANDRAIL
- 4.1 MASONRY WALL
- 10.6 BOLLARD - STREETLIFE OPEN
- 10.2 TREE GRILLE - STREETLIFE CUSTOM 5' X 18'
- 1.1 PAVERS - TBD
- RE: CIVIL GRADING
- PLANTING
- 10.2 TREE GRILLE - STREETLIFE CUSTOM 5' X 18'
- 1.2 PORTLAND BRICK PAVING, TYP.

LIMITS OF CONSTRUCTION FOR MERCY
COMPLEX REDEVELOPMENT. REMAINING
SITE ARE TO REMAIN GRAVEL IN INTERIM
PENDING SEPARATE BUILDING
APPROVALS.

NOT ISSUED FOR
CONSTRUCTION



SEAL

PROJECT TITLE

MERCY
144 STATE STREET
PORTLAND, ME

PREPARED FOR

REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
PRELIMINARY PRICING	02.12.2021
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

ISSUE DATE

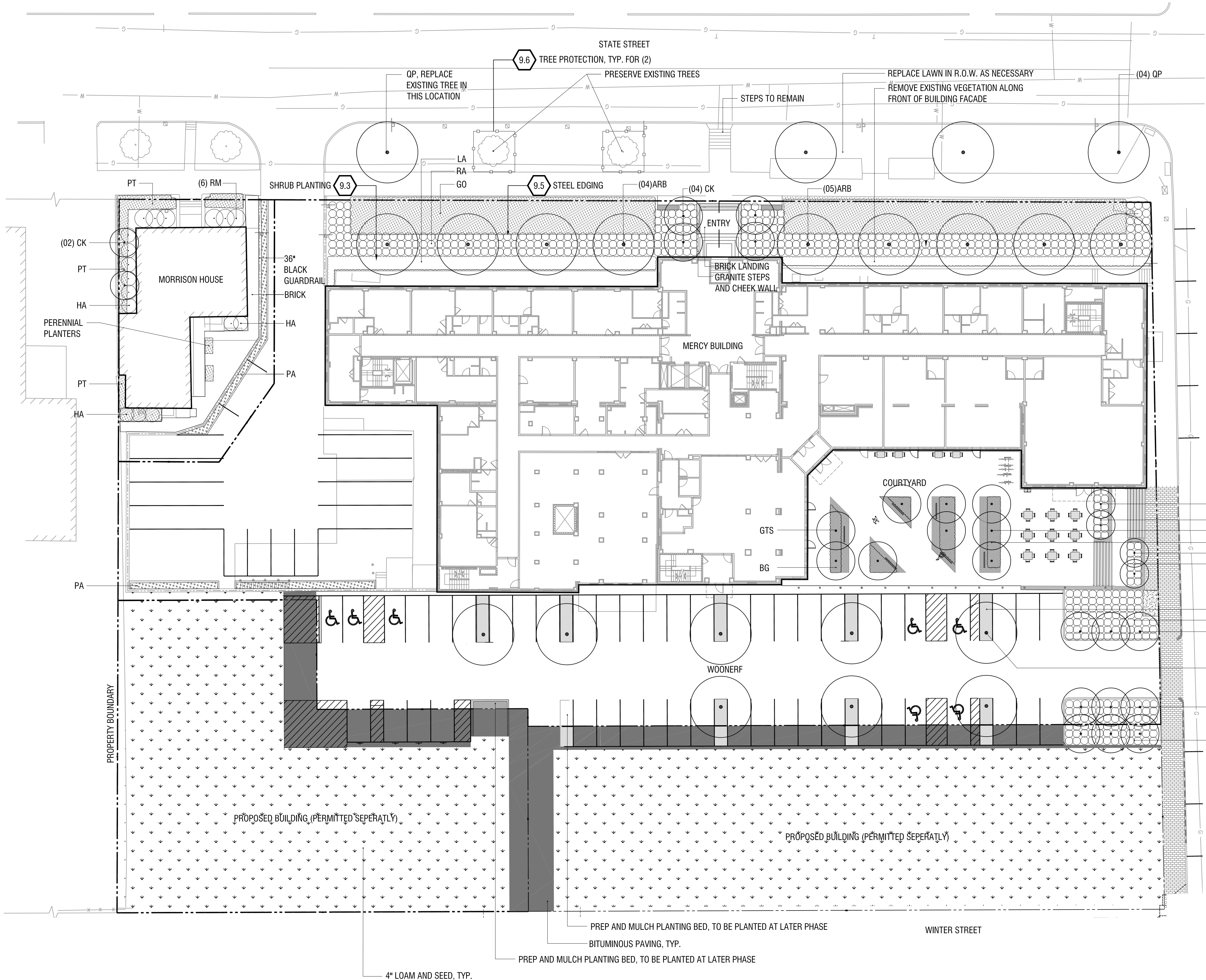
LEVEL III SITE PLAN
SEPTEMBER 10, 2020

SHEET TITLE

MATERIALS PLAN

SHEET INFORMATION

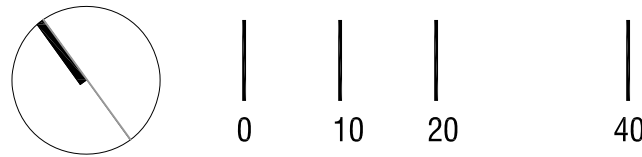
L 2-00



SITE KEYNOTES:					
1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	PAVERS - TBD	1/L4-00	6.1	HANDRAIL	1/L4-01
1.2	PAVERS - STRIPING PARKING	1/L4-00	7.0	SITE LIGHTING	
2.0	JOINTING		7.1	BY OTHERS	
2.1	XX NOT USED AT THIS TIME	XXX-XX	8.0	DRAINAGE	
3.0	STEPS		8.1	XX NOT USED AT THIS TIME	XXX-XX
3.1	GRANITE STEPS	2/L4-01	9.0	PLANTING AND LANDSCAPE	
4.0	SITE WALLS/ EMBANKMENTS		9.1	DECIDUOUS TREE PLANTING	1/L4-02
4.1	MASONRY WALL - FINISH TBD	3/L4-00	9.2	MULTI-STEM TREE PLANTING	2/L4-02
4.2	GUARD RAILING	2/L4-00	9.3	SHRUB PLANTING	2/L4-02
5.0	SITE FURNITURE		9.4	PERENNIAL PLANTING	4/L4-02
5.1	GRANITE BENCH	1/L4-03	9.5	STEEL EDGING	5/L4-02
5.2	SOLID EDGE SYSTEM - STREETLIFE	2/L4-03	9.6	TREE PROTECTION	6/L4-02
			10.0	MISCELLANEOUS ELEMENTS	
			10.1	BIKE RACK - STREETLIFE Co7on	1/L4-04
			10.2	TREE GRILLE - STREETLIFE CUSTOM 5' X 18'	2/L4-04
			10.3	TREE GRILLE - STREETLIFE 5' x 5'	2/L4-04
			10.4	TREE GRATE - NENNAH MODEL R-8810	3/L4-04
			10.5	WASTE DISPOSAL CONTAINERS	1/L4-05
			10.6	BOLLARD - STREETLIFE OPEN BOLLARD	1/L4-05

PLANTING LEGEND						
SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
TREES-DECIDUOUS						
AM	AMELANCHIER	'AUTUMN BRILLIANCE'	SERVICEBERRY (MULTI-STEM)	TBD	3" CAL.	PER PLAN
ARB	ACER RUBRUM	'BOWHALL'	BOWHALL RED MAPLE	9	3" CAL.	PER PLAN
CK	CORNUS KOUSA		KOUSA DOGWOOD	4	7-8"	PER PLAN
GT	GLEDTISIA TRIACANTHOS		HONEYLOCUST	17	3" CAL.	PER PLAN
GTS	GLEDTISIA TRIACANTHOS	'SKYCOLE'	SKYLINE HONEYLOCUST	17	3" CAL.	PER PLAN
QPP	QUERCUS PALUSTRIS	'PRINGREEN'	GREEN PILLAR OAK	9	3" CAL.	PER PLAN
QP	QUERCUS PALUSTRIS		PIN OAK	9	3" CAL.	PER PLAN
GRASSES / PERENNIALS						
BG	BOUTELOUA GRACILIS		BLUE GRAMA GRASS	TBD	#1	PER PLAN
GROUND COVERS						
GO	GALIUM ODORATUM		SWEETWOODRUFF	TBD	#1	PER PLAN
PT	PACHYSANDRA TERMINALIS		PACHYSANDRA TERMINALIS	TBD	4" PLUG	PER PLAN
SHRUBS						
HA	HYDRANGEA ARBORESCENS	'BAR HARBOR'	COMPACT ANNABELLE HYDRANGEA	TBD	#5	PER PLAN
MP	MYRTICA PENNSYLVANICA		NORTHERN BAYBERRY	TBD	#1	PER PLAN
RA	RHUS AROMATICA	'GRO-LOW'	FRAGRANT SUMAC	TBD	#1	PER PLAN
RM	RHODODENDRON MAXIMUM	'ROSEUM'	RHODODENDRON	TBD	B&B	PER PLAN
PA	PARTHENDOCISSUS TRICUSPIDATA		BOSTON IVY (VINE)	TBD	#1	PER PLAN
LA	LIGUSTRUM AMURENSE		AMUR PRIVET	TBD	#5	2' O.C.
BULBS						
ALUM			PURPLE SENSATION	TBD	BULB	
LAWN (SEED)						
LAWN (SOD)						

- (02) AM
- RA
- (09)GTS
- RAISED PLANTERS
- (02) AM
- RA
- TREE GRILLE, TYP.
- RA
- (03)QPP
- (12)GT
- (06)QPP
- RA



SEAL

PROJECT TITLE

MERCY
144 STATE STREET
PORTLAND, ME

PREPARED FOR

REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
PRELIMINARY PRICING	02.12.2021
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

ISSUE DATE

LEVEL III SITE PLAN
SEPTEMBER 10, 2020

SHEET TITLE

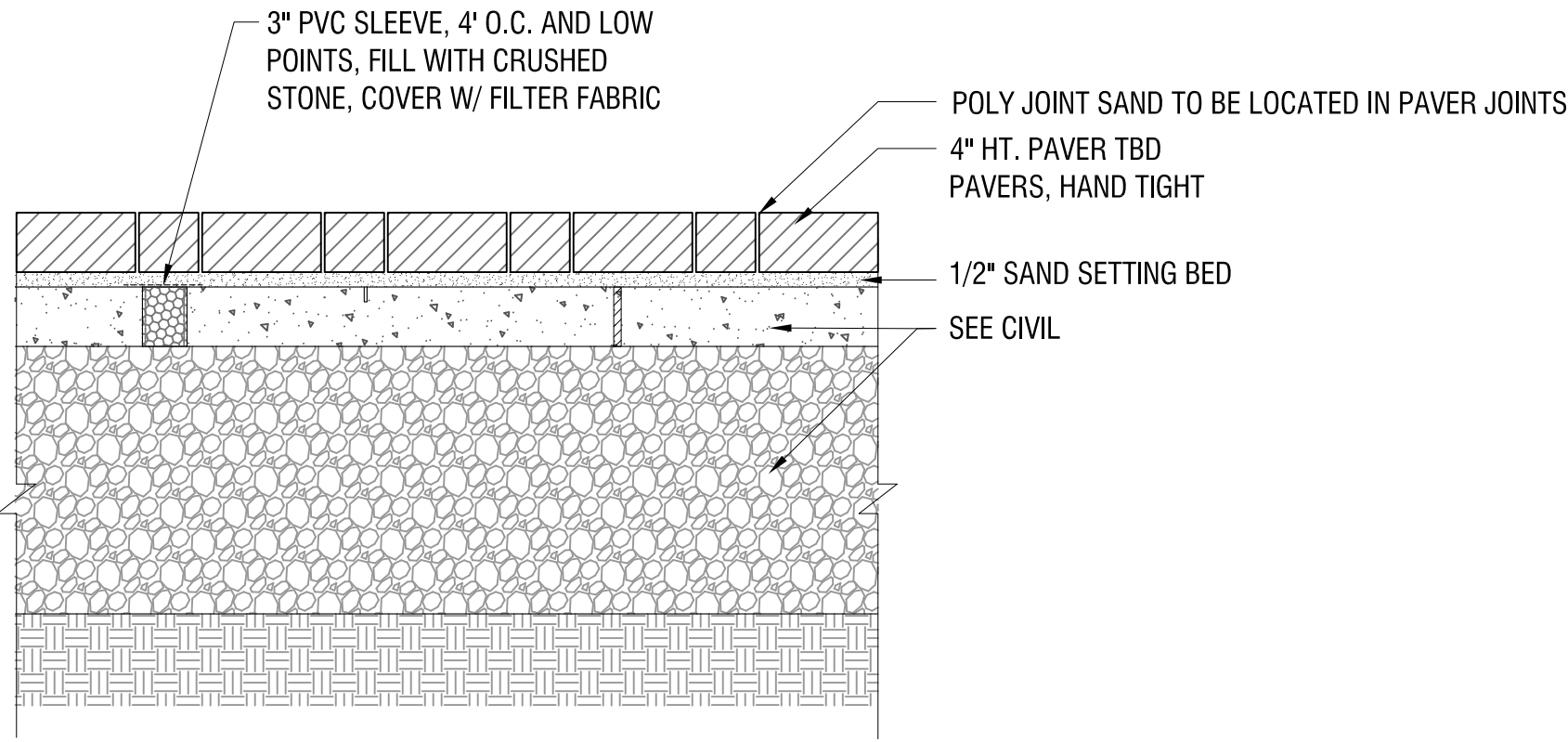
PLANTING & TREE
PROTECTION PLAN

SHEET INFORMATION

L 3-00

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	PAVERS - TBD	1/L4-00	6.1	HANDRAIL	1/L4-01
1.2	PAVERS - STRIPING PARKING	1/L4-00	7.0	SITE LIGHTING	
2.0	JOINTING			BY OTHERS	
X.X	NOT USED AT THIS TIME	X/XX-XX	8.0	DRAINAGE	
3.0	STEPS		X.X	NOT USED AT THIS TIME	X/XX-XX
3.1	GRANITE STEPS	2/L4-01	9.0	PLANTING AND LANDSCAPE	
4.0	SITE WALLS/ EMBANKMENTS		9.1	DECIDUOUS TREE PLANTING	1/L4-02
4.1	MASONRY WALL - FINISH TBD	3/L4-00	9.2	MULTI-STEM TREE PLANTING	2/L4-02
4.2	GUARD RAILING	2/L4-00	9.3	SHRUB PLANTING	3/L4-02
5.0	SITE FURNITURE		9.4	PERENNIAL PLANTING	4/L4-02
5.1	GRANITE BENCH	1/L4-03	9.5	STEEL EDGING	5/L4-02
5.2	SOLID EDGE SYSTEM - STREETLIFE	2/L4-03	9.6	TREE PROTECTION	6/L4-02
			10.0	MISCELLANEOUS ELEMENTS	
			10.1	BIKE RACK - STREETLIFE CorTen	1/L4-04
			10.2	TREE GRILLE - STREETLIFE CUSTOM 5' X 18"	2/L4-04
			10.3	TREE GRILLE - STREETLIFE 5' x 5'	2/L4-04
			10.4	TREE GRATE - NENNAH MODEL R-8810	3/L4-04
			10.5	WASTE DISPOSAL CONTAINERS	1/L4-05
			10.6	BOLLARD - STREETLIFE OPEN BOLLARD	1/L4-05



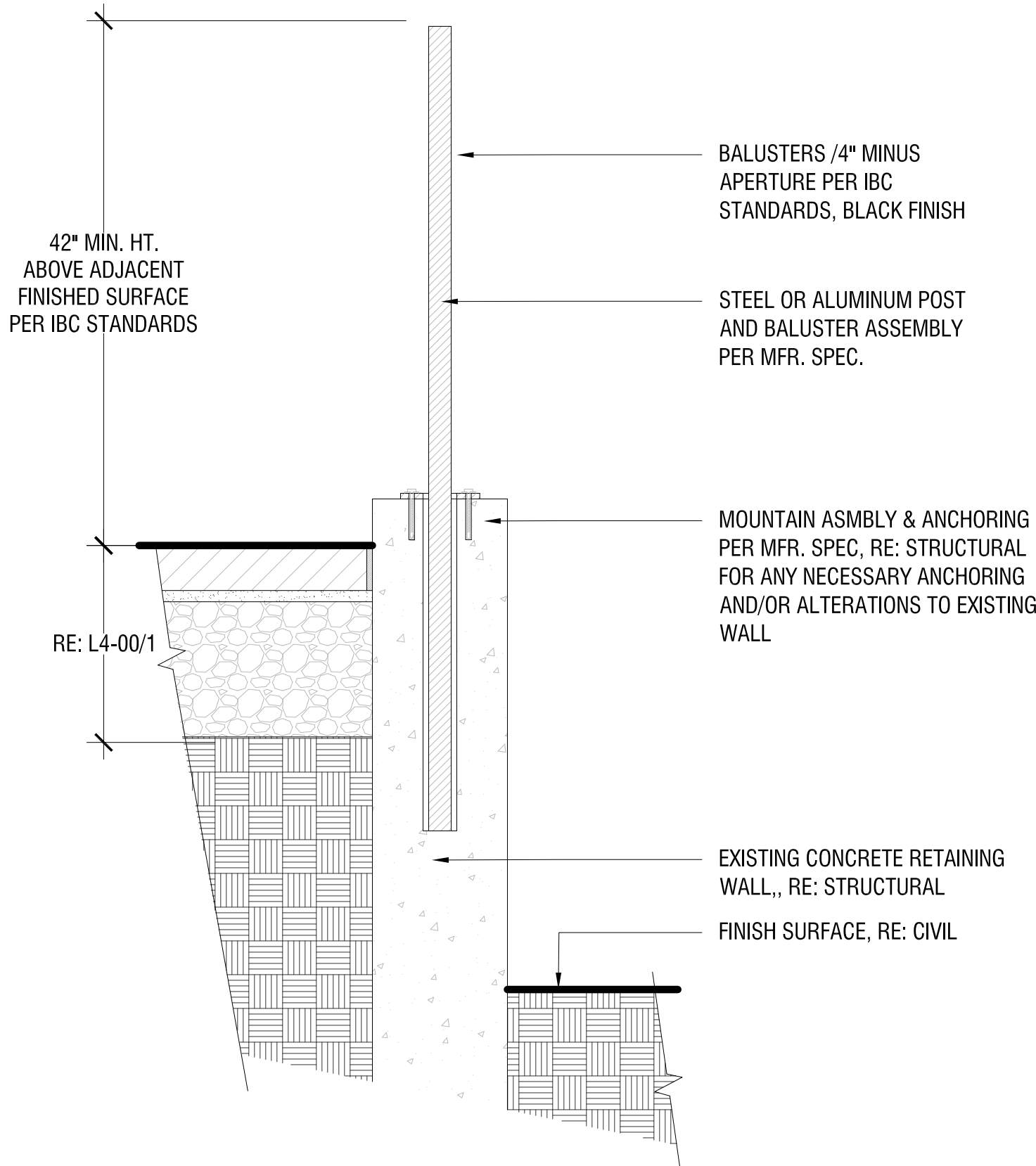
- NOTES:
- METAL EDGE RESTRAINT TO BE USED WHERE PAVERS MEET PLANTING AREAS

1

CONCRETE PAVER - TBD

1":1'-0"

1.1

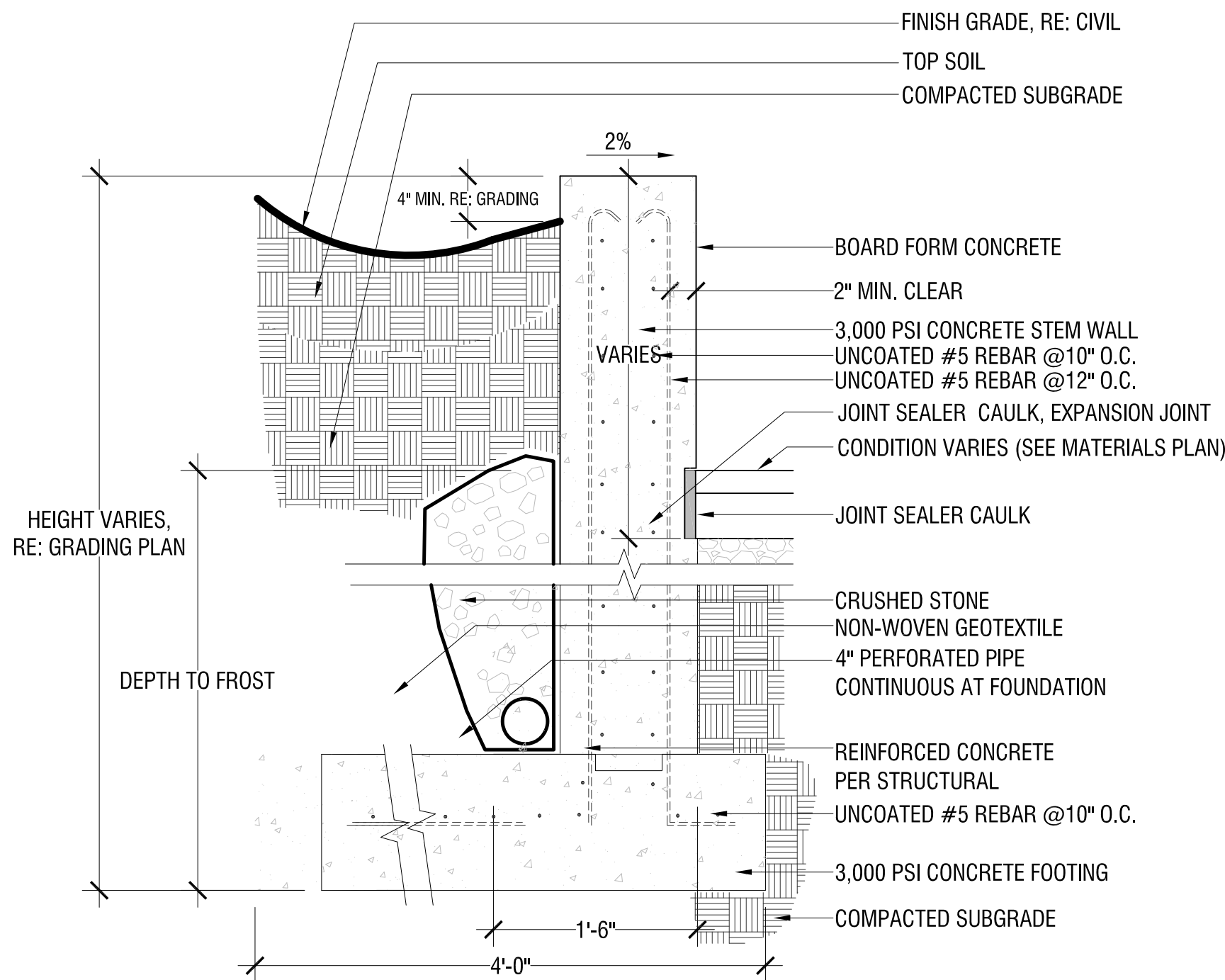


2

GUARD RAILING

1": 2'-0"

4.2



3

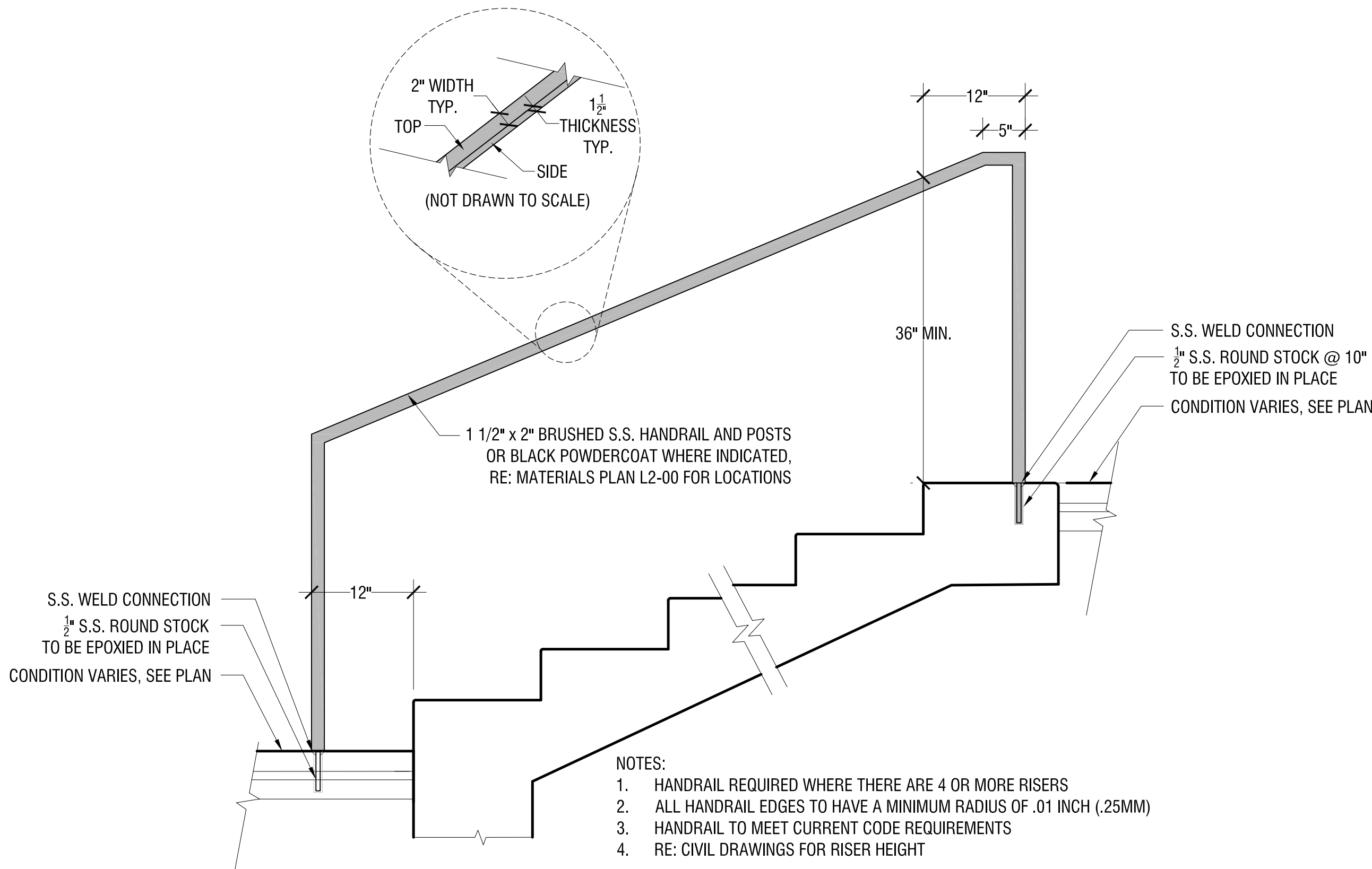
MASONRY WALL

1":1'-0"

4.1

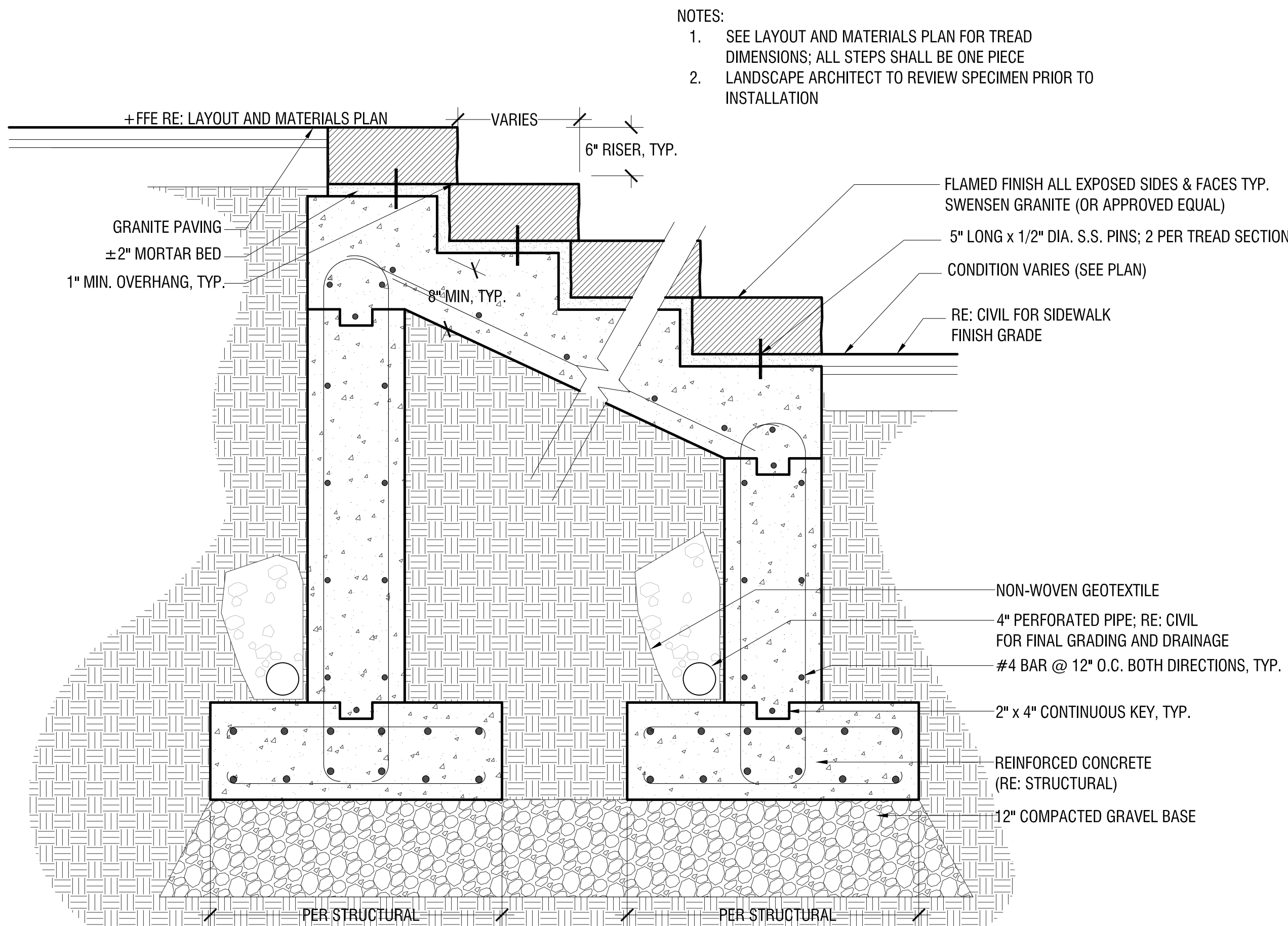
REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

SITE KEYNOTES:			
1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	
1.1	PAVERS - TBD	1/L4-00	
1.2	PAVERS - STRIPING PARKING	1/L4-00	
2.0	JOINTING		
X.X	NOT USED AT THIS TIME	X/XX-XX	
3.0	STEPS		
3.1	GRANITE STEPS	2/L4-01	
4.0	SITE WALLS/ EMBANKMENTS		
4.1	MASONRY WALL - FINISH TBD	3/L4-00	
4.2	GUARD RAILING	2/L4-00	
5.0	SITE FURNITURE		
5.1	GRANITE BENCH	1/L4-03	
5.2	SOLID EDGE SYSTEM - STREETLIFE	2/L4-03	
6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET	
6.1	HANDRAIL	1/L4-01	
7.0	SITE LIGHTING		
	BY OTHERS		
8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME	X/XX-XX	
9.0	PLANTING AND LANDSCAPE		
9.1	DECIDUOUS TREE PLANTING	1/L4-02	
9.2	MULTI-STEM TREE PLANTING	2/L4-02	
9.3	SHRUB PLANTING	3/L4-02	
9.4	PERENNIAL PLANTING	4/L4-02	
9.5	STEEL EDGING	5/L4-02	
9.6	TREE PROTECTION	6/L4-02	
10.0	MISCELLANEOUS ELEMENTS		
10.1	BIKE RACK - STREETLIFE CorTen	1/L4-04	
10.2	TREE GRILLE - STREETLIFE CUSTOM 5' X 18"	2/L4-04	
10.3	TREE GRILLE - STREETLIFE 5' x 5'	2/L4-04	
10.4	TREE GRATE - NENNAH MODEL R-8810	3/L4-04	
10.5	WASTE DISPOSAL CONTAINERS	1/L4-05	
10.6	BOLLARD - STREETLIFE OPEN BOLLARD	1/L4-05	



1 HANDRAIL
1":1'-0"

6.1



2 GRANITE STEPS
1":1'-0"

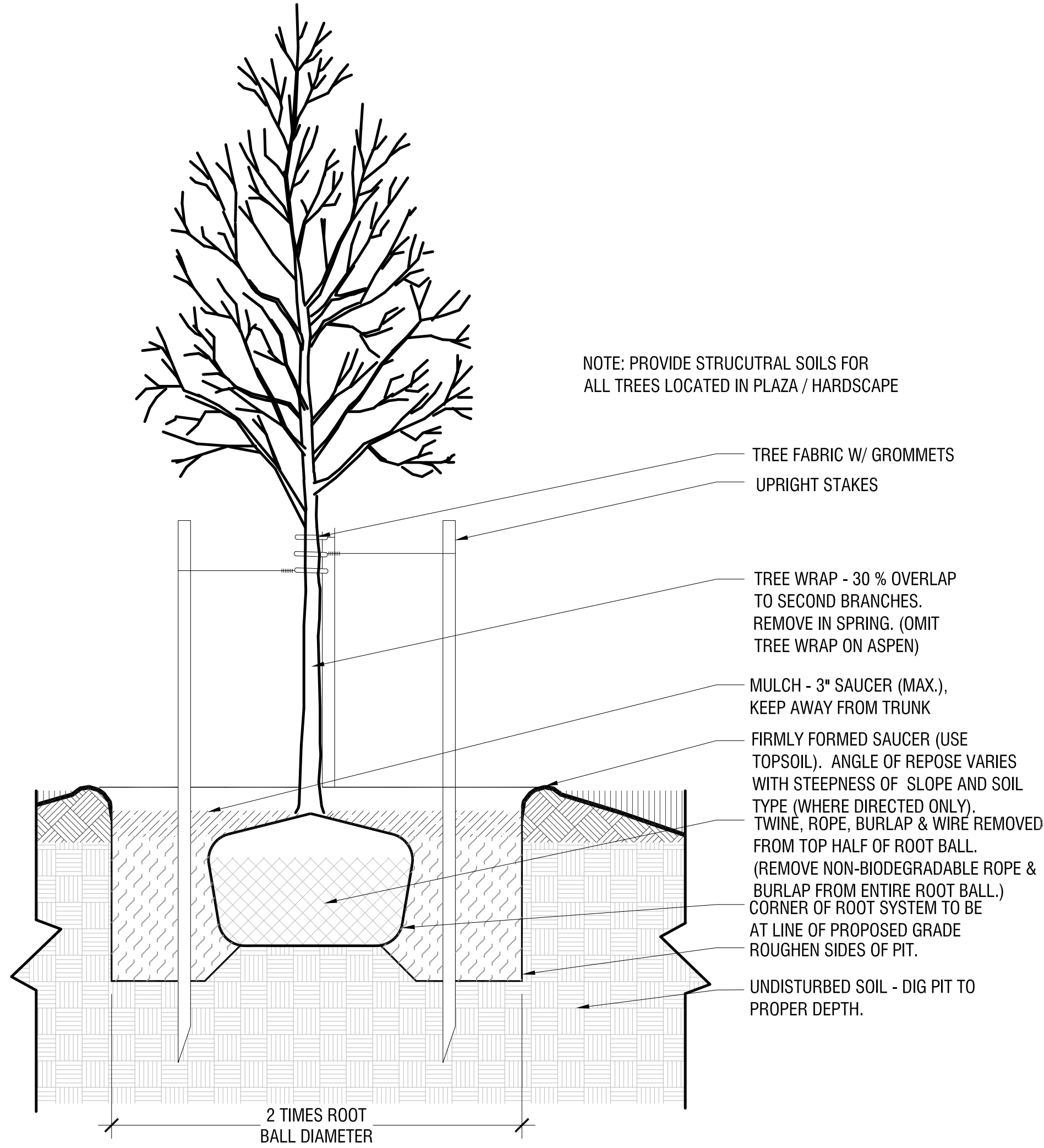
3.1

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

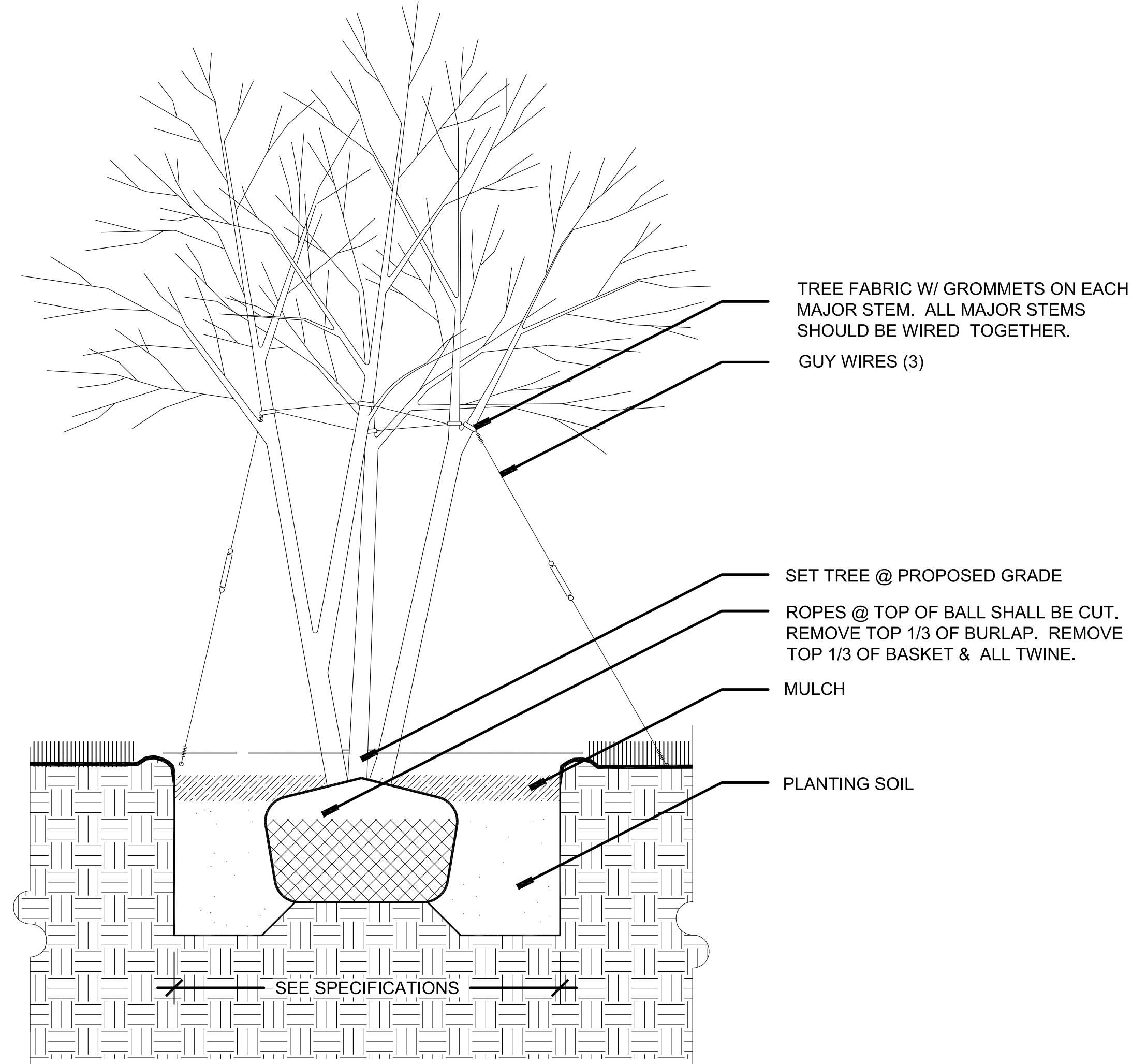
SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	PAVERS - TBD	1/L4-00	6.1	HANDRAIL	1/L4-01
1.2	PAVERS - STRIPING PARKING	1/L4-00			
2.0	JOINTING		7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX		BY OTHERS	
3.0	STEPS		8.0	DRAINAGE	
3.1	GRANITE STEPS	2/L4-01	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		9.0	PLANTING AND LANDSCAPE	
4.1	MASONRY WALL - FINISH TBD	3/L4-00	9.1	DECIDUOUS TREE PLANTING	1/L4-02
4.2	GUARD RAILING	2/L4-00	9.2	MULTI-STEM TREE PLANTING	2/L4-02
5.0	SITE FURNITURE		9.3	SHRUB PLANTING	3/L4-02
5.1	GRANITE BENCH	1/L4-03	9.4	PERENNIAL PLANTING	4/L4-02
5.2	SOLID EDGE SYSTEM - STREETLIFE	2/L4-03	9.5	STEEL EDGING	5/L4-02
			9.6	TREE PROTECTION	6/L4-02
			10.0	MISCELLANEOUS ELEMENTS	
			10.1	BIKE RACK - STREETLIFE CorTen	1/L4-04
			10.2	TREE GRILLE - STREETLIFE CUSTOM 5' X 18"	2/L4-04
			10.3	TREE GRILLE - STREETLIFE 5' x 5'	2/L4-04
			10.4	TREE GRATE - NENNAH MODEL R-8810	3/L4-04
			10.5	WASTE DISPOSAL CONTAINERS	1/L4-05
			10.6	BOLLARD - STREETLIFE OPEN BOLLARD	1/L4-05



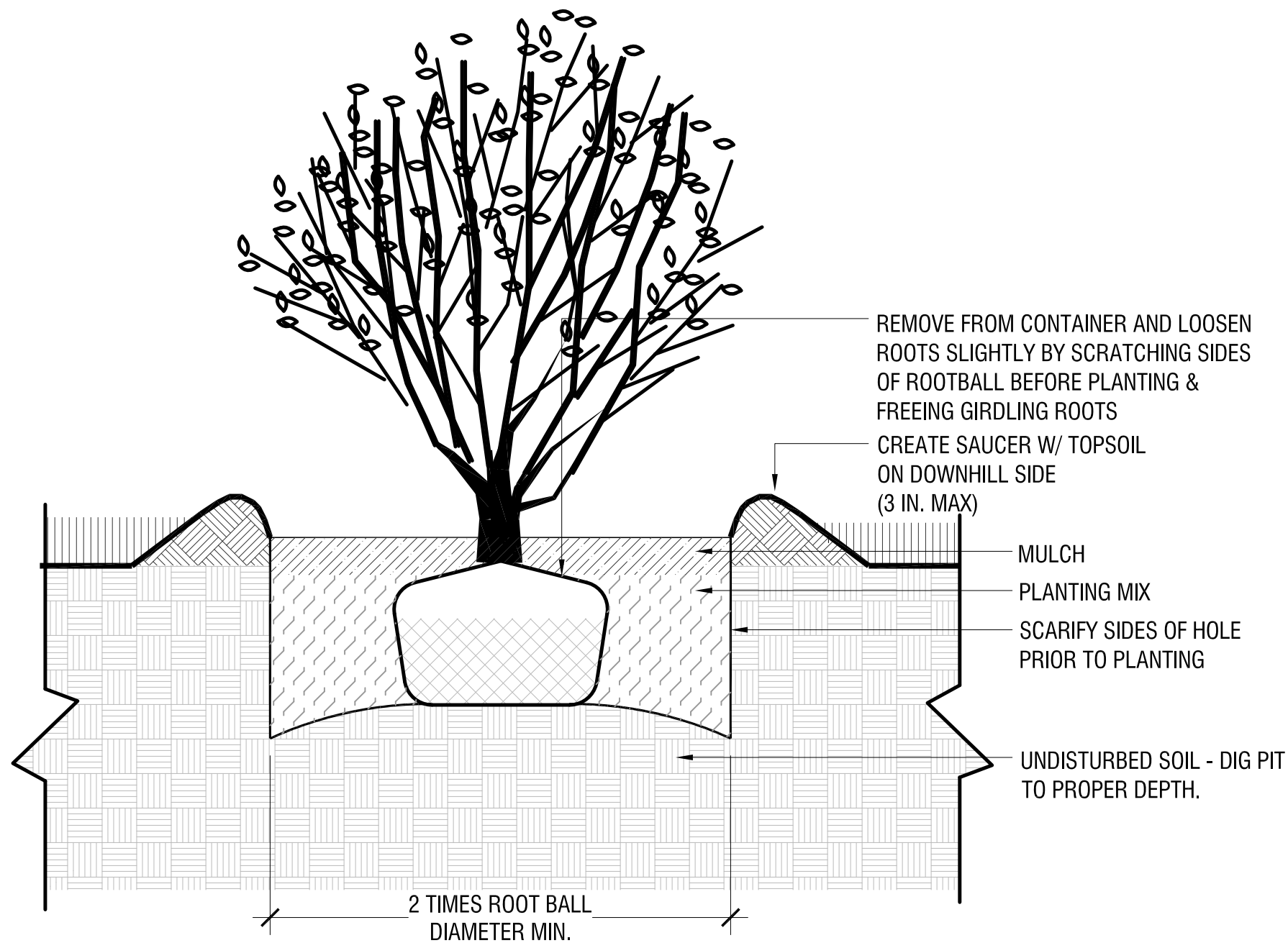
1 DECIDUOUS TREE PLANTING
1":1'-0"

9.1



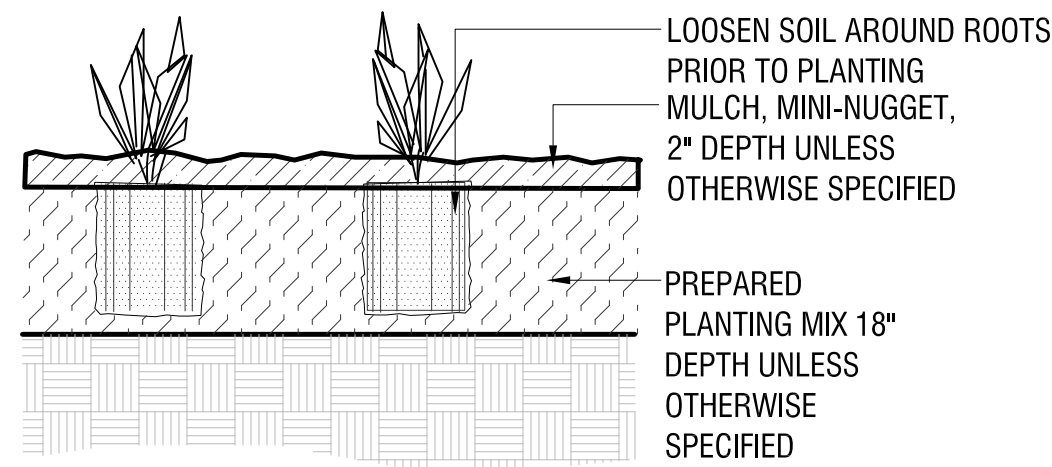
2 MULTI-STEM TREE PLANTING
1":1'-0"

9.2



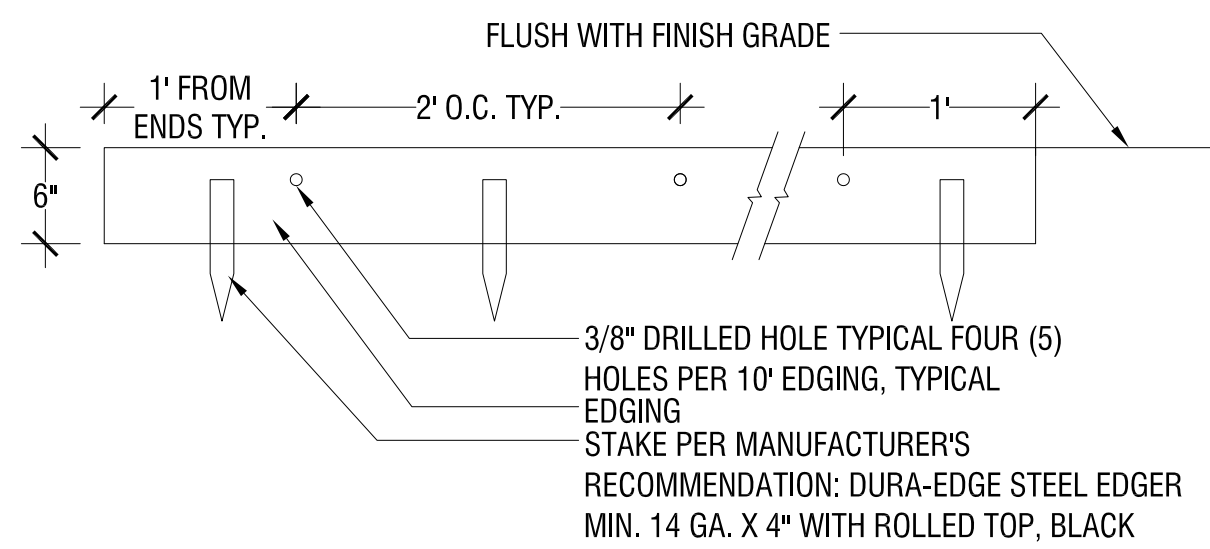
3 SHRUB PLANTING
1":1'-0"

9.3



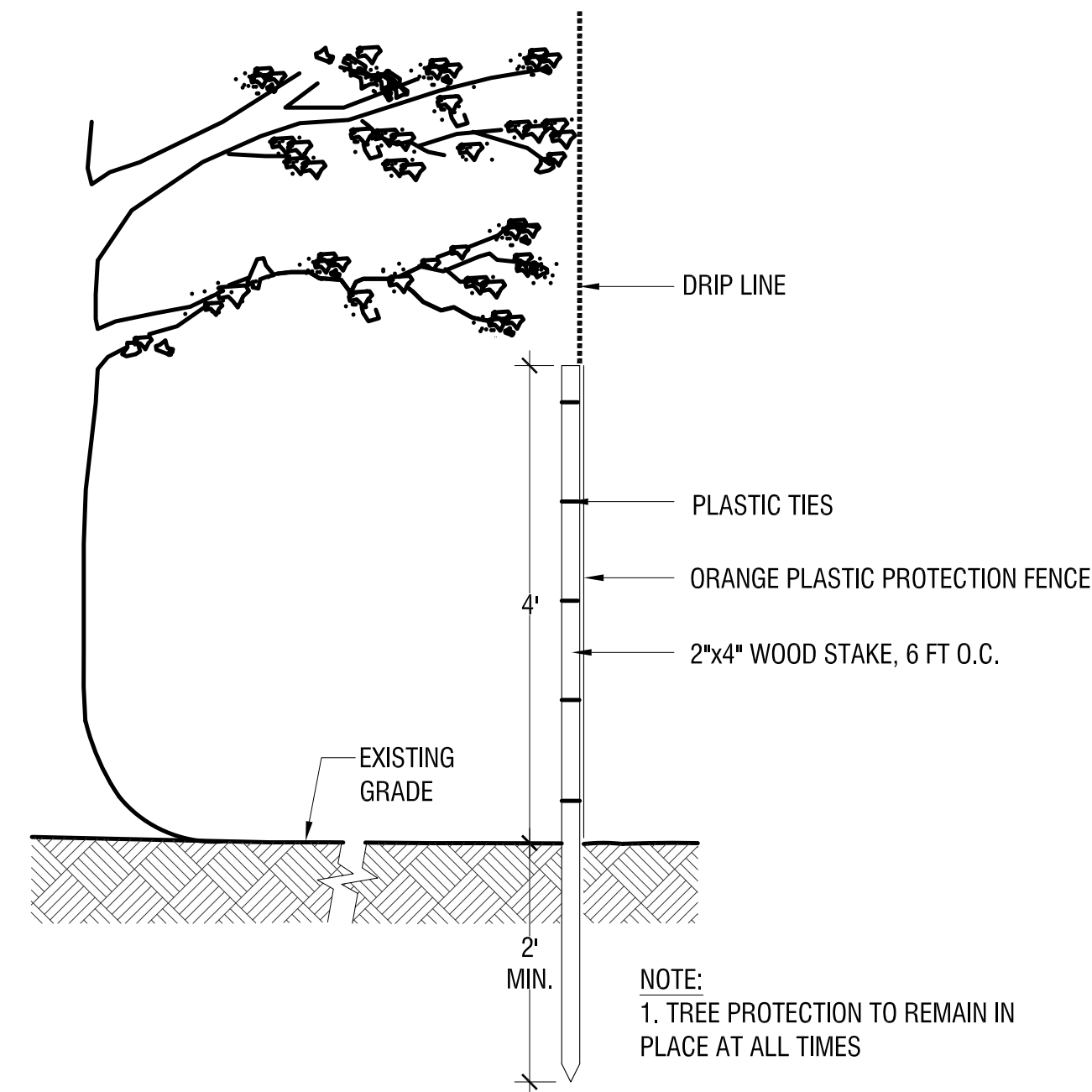
4 PERENNIAL PLANTING
1":1'-0"

9.4



5 STEEL EDGING
1":1'-0"

9.5



6 TREE PROTECTION
1":1'-0"

9.6

SEAL

PROJECT TITLE

MERCY
144 STATE STREET
PORTLAND, ME

PREPARED FOR

REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

ISSUE DATE

LEVEL III SITE PLAN
SEPTEMBER 10, 2020

SHEET TITLE

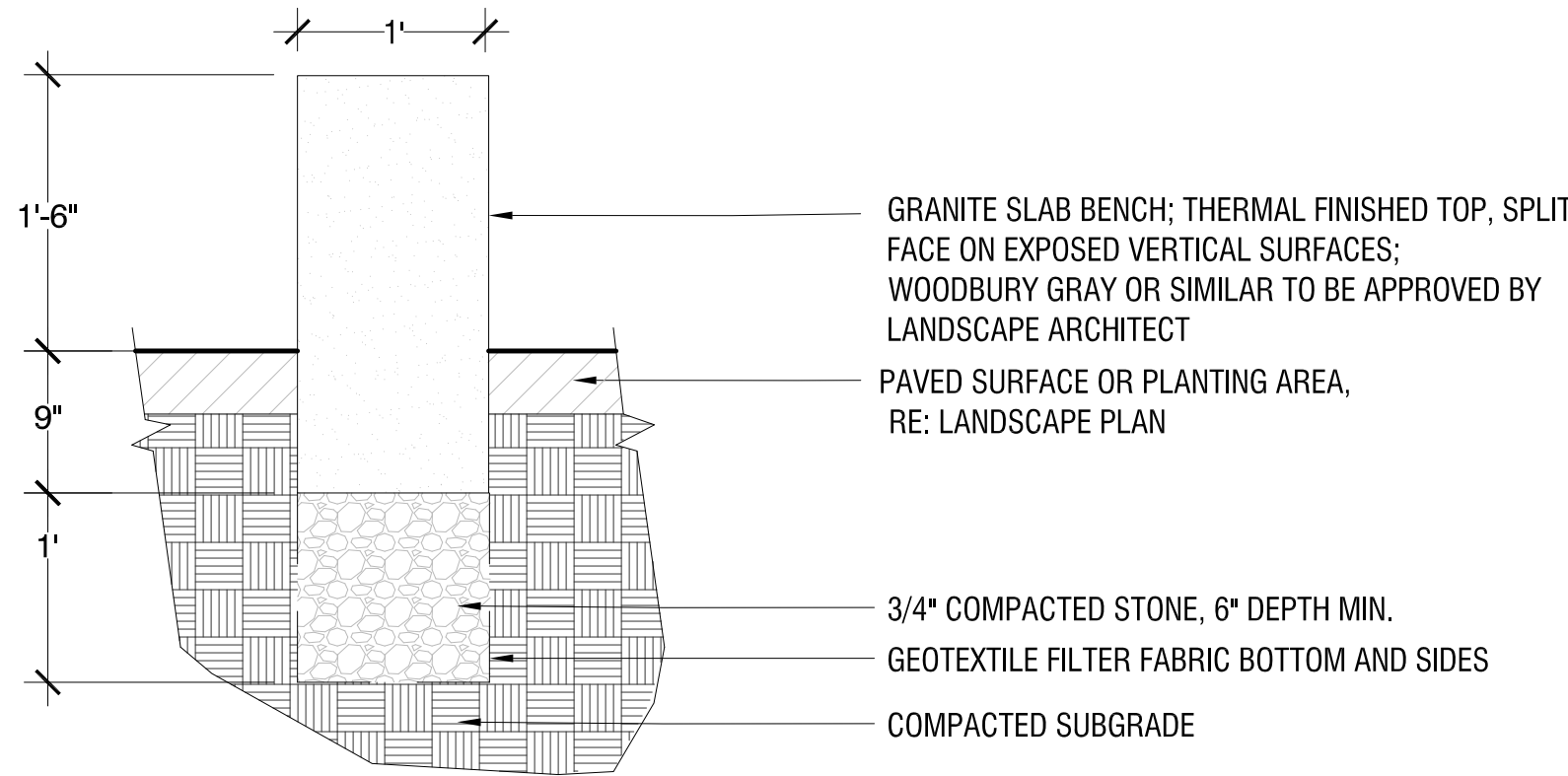
PLANTING DETAILS

SHEET INFORMATION

L 4-02

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

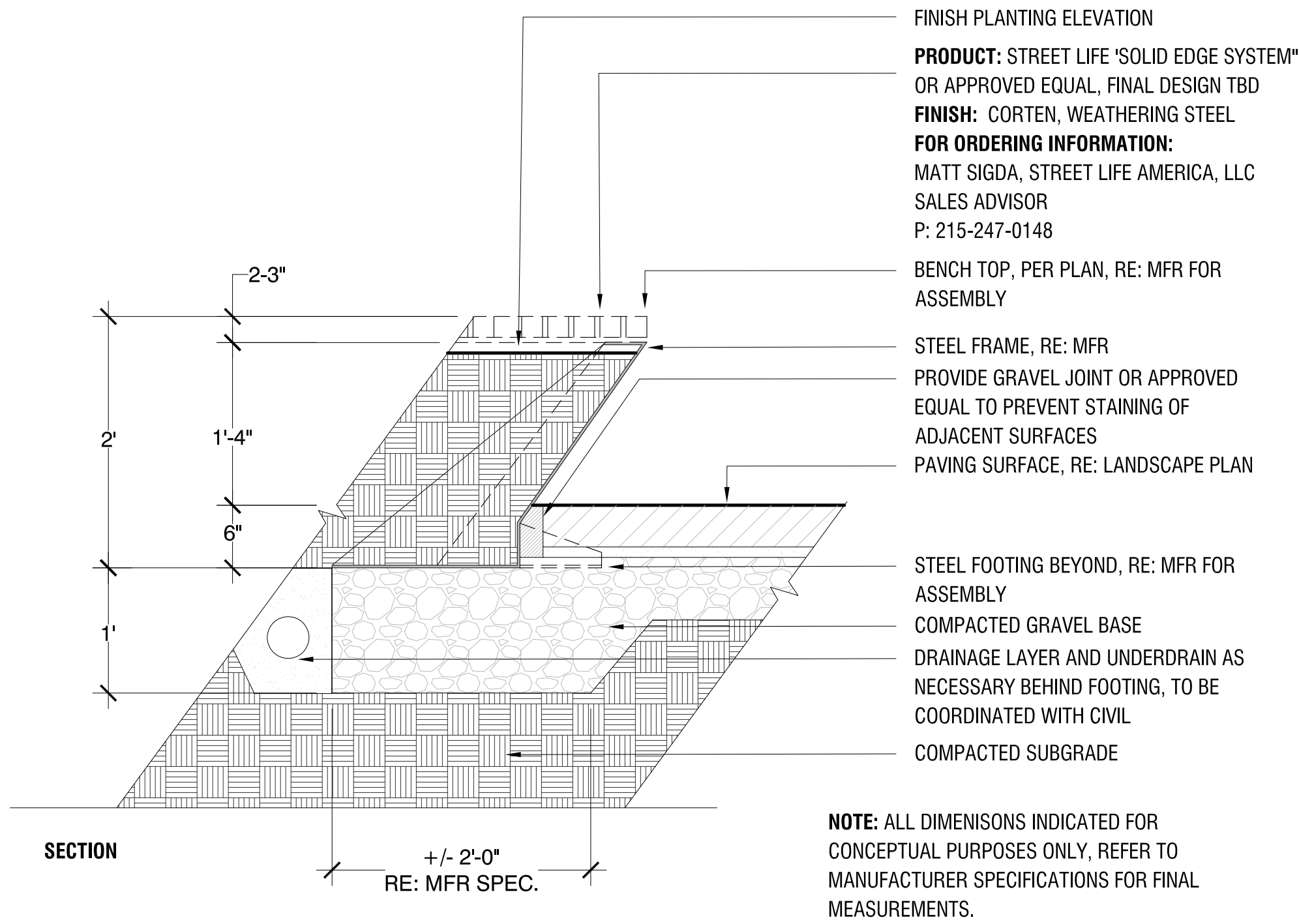
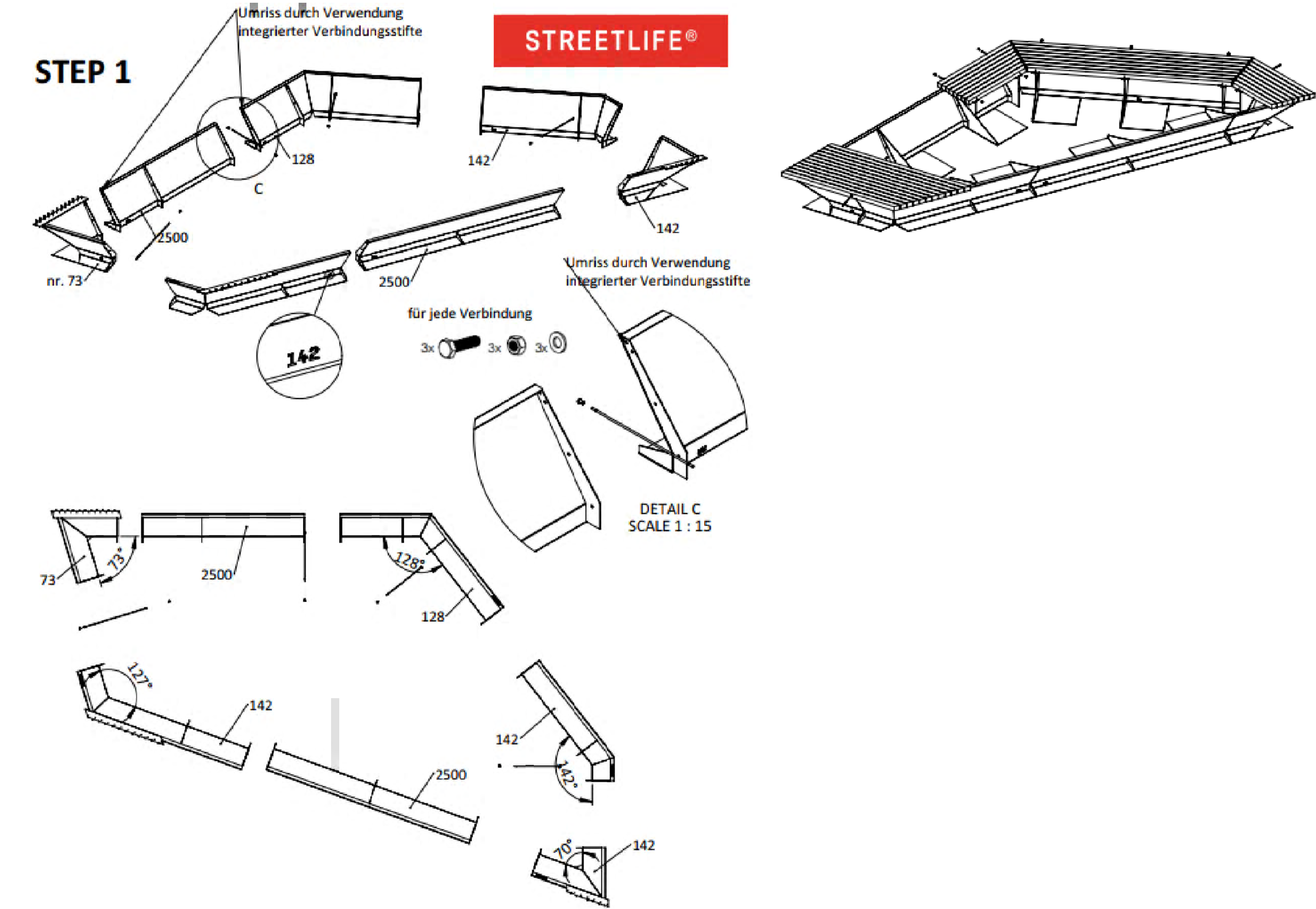
SITE KEYNOTES:							
1.0	PAVEMENTS, RAMPS, CURBS		DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING		DETAIL / SHEET
1.1	PAVERS - TBD		1/L4-00	6.1	HANDRAIL		1/L4-01
1.2	PAVERS - STRIPING PARKING		1/L4-00	7.0	SITE LIGHTING		
					BY OTHERS		
2.0	JOINTING			8.0	DRAINAGE		
X.X	NOT USED AT THIS TIME		X/XX-XX	X.X	NOT USED AT THIS TIME		X/XX-XX
3.0	STEPS			9.0	PLANTING AND LANDSCAPE		
3.1	GRANITE STEPS		2/L4-01	9.1	DECIDUOUS TREE PLANTING		1/L4-02
				9.2	MULTI-STEM TREE PLANTING		2/L4-02
4.0	SITE WALLS/ EMBANKMENTS			9.3	SHRUB PLANTING		3/L4-02
4.1	MASONRY WALL - FINISH TBD		3/L4-00	9.4	PERENNIAL PLANTING		4/L4-02
4.2	GUARD RAILING		2/L4-00	9.5	STEEL EDGING		5/L4-02
				9.6	TREE PROTECTION		6/L4-02
5.0	SITE FURNITURE			10.0	MISCELLANEOUS ELEMENTS		
5.1	GRANITE BENCH		1/L4-03	10.1	BIKE RACK - STREETLIFE CorTen		1/L4-04
5.2	SOLID EDGE SYSTEM - STREETLIFE		2/L4-03	10.2	TREE GRILLE - STREETLIFE CUSTOM 5' X 18"		2/L4-04
				10.3	TREE GRILLE - STREETLIFE 5' x 5'		2/L4-04
				10.4	TREE GRATE - NENNAH MODEL R-8810		3/L4-04
				10.5	WASTE DISPOSAL CONTAINERS		1/L4-05
				10.6	BOLLARD - STREETLIFE OPEN BOLLARD		1/L4-05



1

GRANITE BENCH
N.T.S.

5.1



2

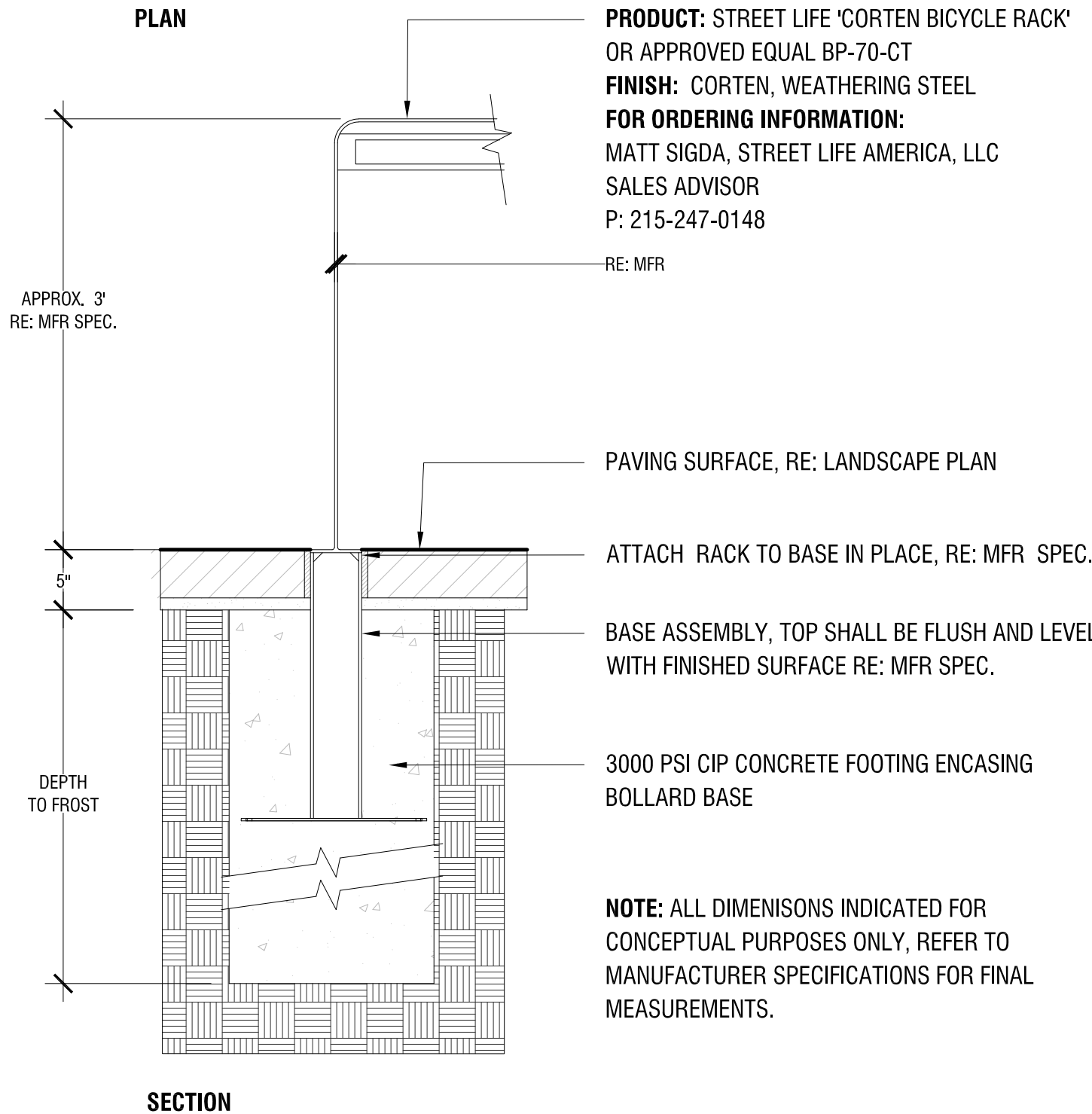
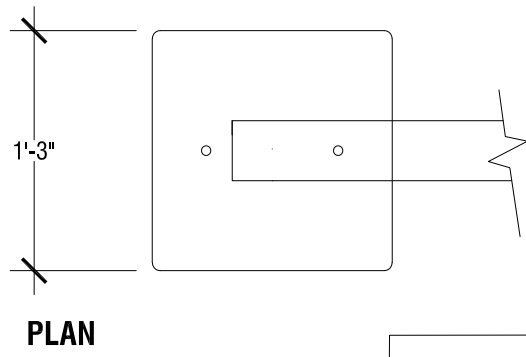
SOLID EDGE SYSTEM - STREETLIFE
N.T.S.

5.2

REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	PAVERS - TBD	1/L4-00	6.1	HANDRAIL	1/L4-01
1.2	PAVERS - STRIPING PARKING	1/L4-00			
2.0	JOINTING		7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX		BY OTHERS	
3.0	STEPS		8.0	DRAINAGE	
3.1	GRANITE STEPS	2/L4-01	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		9.0	PLANTING AND LANDSCAPE	
4.1	MASONRY WALL - FINISH TBD	3/L4-00	9.1	DECIDUOUS TREE PLANTING	1/L4-02
4.2	GUARD RAILING	2/L4-00	9.2	MULTI-STEM TREE PLANTING	2/L4-02
			9.3	SHRUB PLANTING	3/L4-02
			9.4	PERENNIAL PLANTING	4/L4-02
			9.5	STEEL EDGING	5/L4-02
			9.6	TREE PROTECTION	6/L4-02
5.0	SITE FURNITURE		10.0	MISCELLANEOUS ELEMENTS	
5.1	GRANITE BENCH	1/L4-03	10.1	BIKE RACK - STREETLIFE CorTen	1/L4-04
5.2	SOLID EDGE SYSTEM - STREETLIFE	2/L4-03	10.2	TREE GRILLE - STREETLIFE CUSTOM 5' X 18"	2/L4-04
			10.3	TREE GRILLE - STREETLIFE 5' x 5'	2/L4-04
			10.4	TREE GRATE - NENNAH MODEL R-8810	3/L4-04
			10.5	WASTE DISPOSAL CONTAINERS	1/L4-05
			10.6	BOLLARD - STREETLIFE OPEN BOLLARD	1/L4-05



1

BIKE RACK
N.T.S.

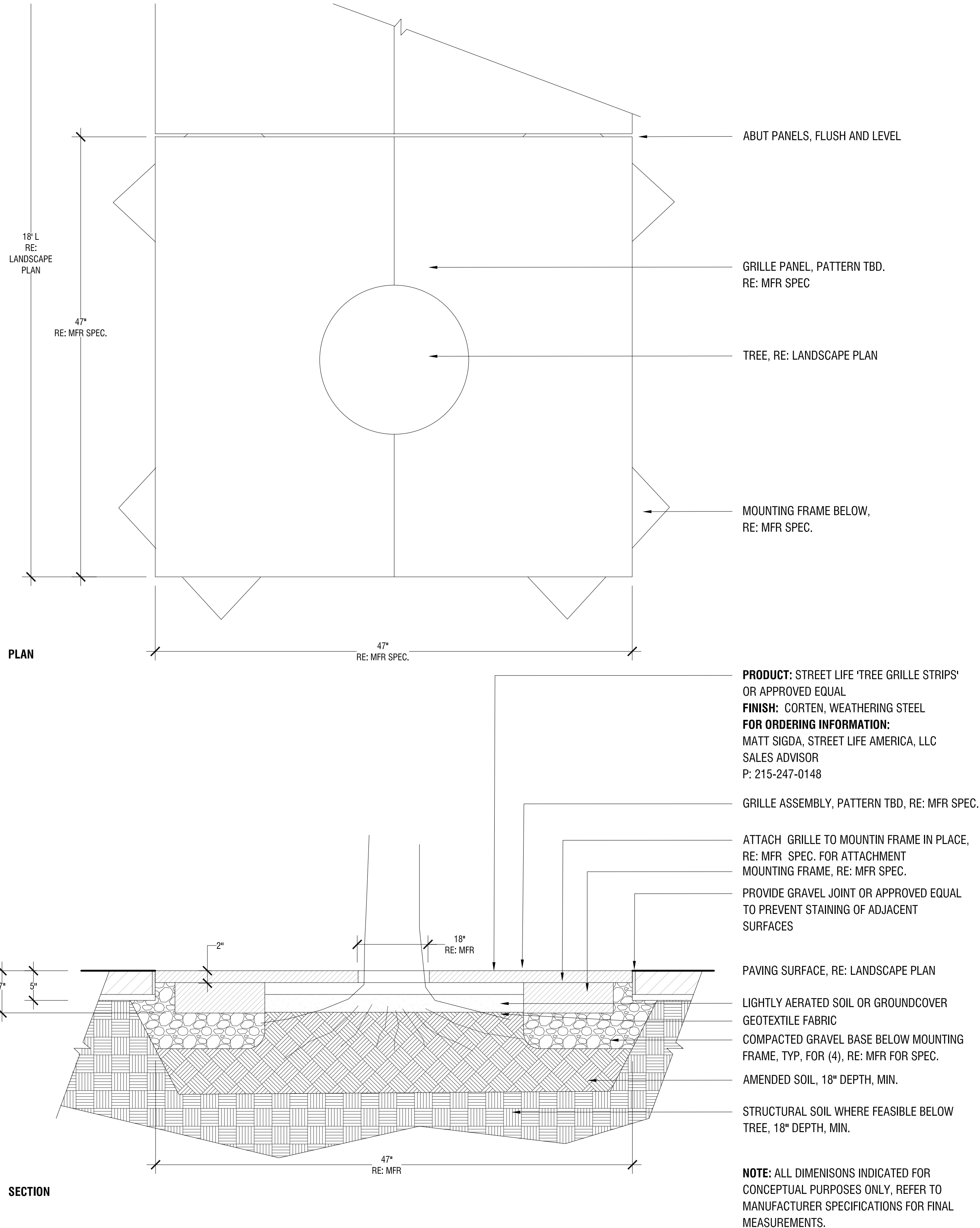
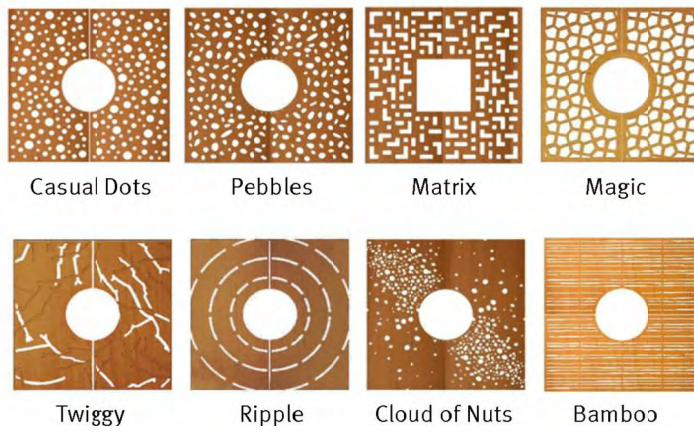
10.1

2

TREE GRILLE
N.T.S.

10.2

10.3



ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

MERCY
144 STATE STREET
PORTLAND, ME

PREPARED FOR

REVISIONS	DATE
LEVEL III SITE PLAN	11.09.2020
LEVEL III SITE PLAN	05.25.2021
HISTORIC REVIEW	07.09.2021
LEVEL III SITE PLAN	07.21.2021
HISTORIC REVIEW	07.26.2021
LEVEL III SITE PLAN	08.24.2021

ISSUE DATE

LEVEL III SITE PLAN
SEPTEMBER 10, 2020

SHEET TITLE

SITE FURNISHINGS

SHEET INFORMATION

L 4-04

SITE KEYNOTES:			
1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0 RAILINGS, BARRIERS, FENCING
	1.1 PAVERS - TBD	1/L4-00	6.1 HANDRAIL
	1.2 PAVERS - STRIPING PARKING	1/L4-00	1/L4-01
2.0	JOINTING		7.0 SITE LIGHTING
	X.X NOT USED AT THIS TIME	X/XX-XX	BY OTHERS
3.0	STEPS		8.0 DRAINAGE
	3.1 GRANITE STEPS	2/L4-01	X.X NOT USED AT THIS TIME
4.0	SITE WALLS/ EMBANKMENTS		9.0 PLANTING AND LANDSCAPE
	4.1 MASONRY WALL - FINISH TBD	3/L4-00	9.1 DECIDUOUS TREE PLANTING
	4.2 GUARD RAILING	2/L4-00	9.2 MULTI-STEM TREE PLANTING
5.0	SITE FURNITURE		9.3 SHRUB PLANTING
	5.1 GRANITE BENCH	1/L4-03	9.4 PERENNIAL PLANTING
	5.2 SOLID EDGE SYSTEM - STREETLIFE	2/L4-03	9.5 STEEL EDGING
			9.6 TREE PROTECTION
			10.0 MISCELLANEOUS ELEMENTS
			10.1 BIKE RACK - STREETLIFE CorTen
			10.2 TREE GRILLE - STREETLIFE CUSTOM 5' X 18'
			10.3 TREE GRILLE - STREETLIFE 5' x 5'
			10.4 TREE GRATE - NENNAH MODEL R-8810
			10.5 WASTE DISPOSAL CONTAINERS
			10.6 BOLLARD - STREETLIFE OPEN BOLLARD

STREETLIFE®

Product Sheet

Box Bins Extra Slim

Waste disposal container in powder coated steel



Product Code

BB-S40-PC / BB-S40-CD-PC

Dimensions

ca.40×40×97 cm | 16×16×38 inches (l×w×h)
Volume ca. 120 liter | 3,3 cu.ft

Weight

41 kg / 90 lbs

Material

Walls: laser cut weathering steel finished in a double powder coating
Lid: Stainless steel or weathering steel incl. lock

Optional

Steel walls with Casual Dots pattern (CD in product code)
Lid with Casual Dots Pattern
Raincover with opening, in stainless steel or weathering steel

Delivery

Fully assembled

Cleaning & Maintenance

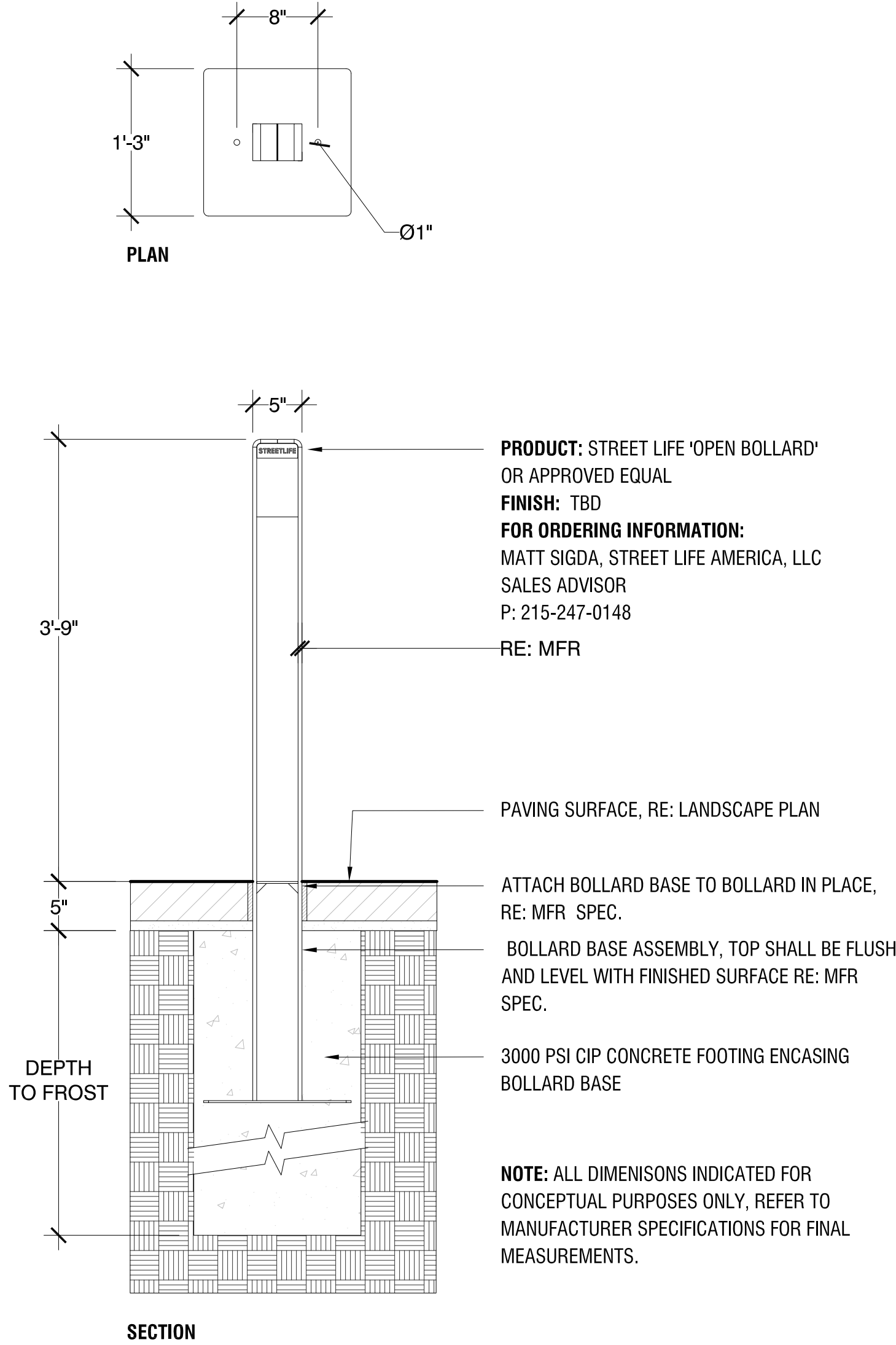
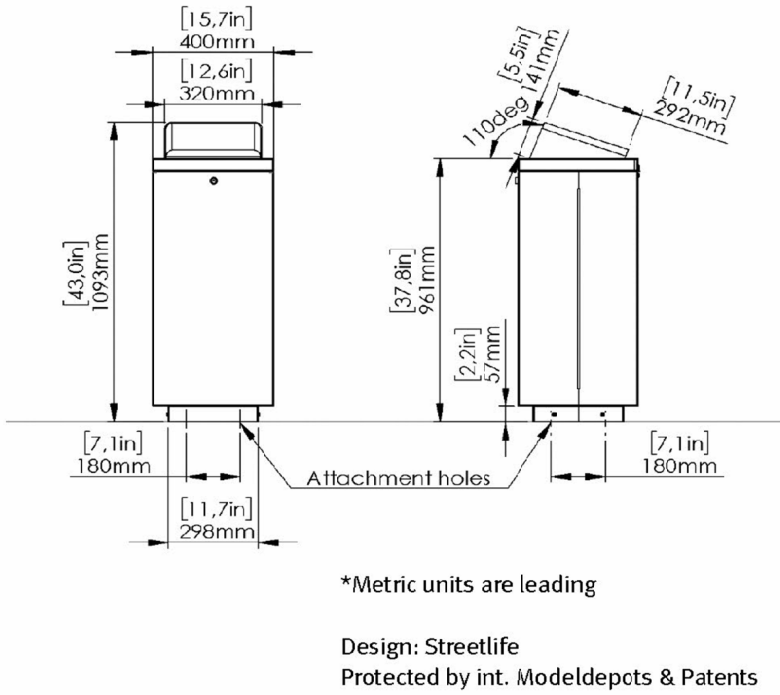
Powder coated steel: maintenance free, cleaning with clear water and brush or high pressure water cleaner

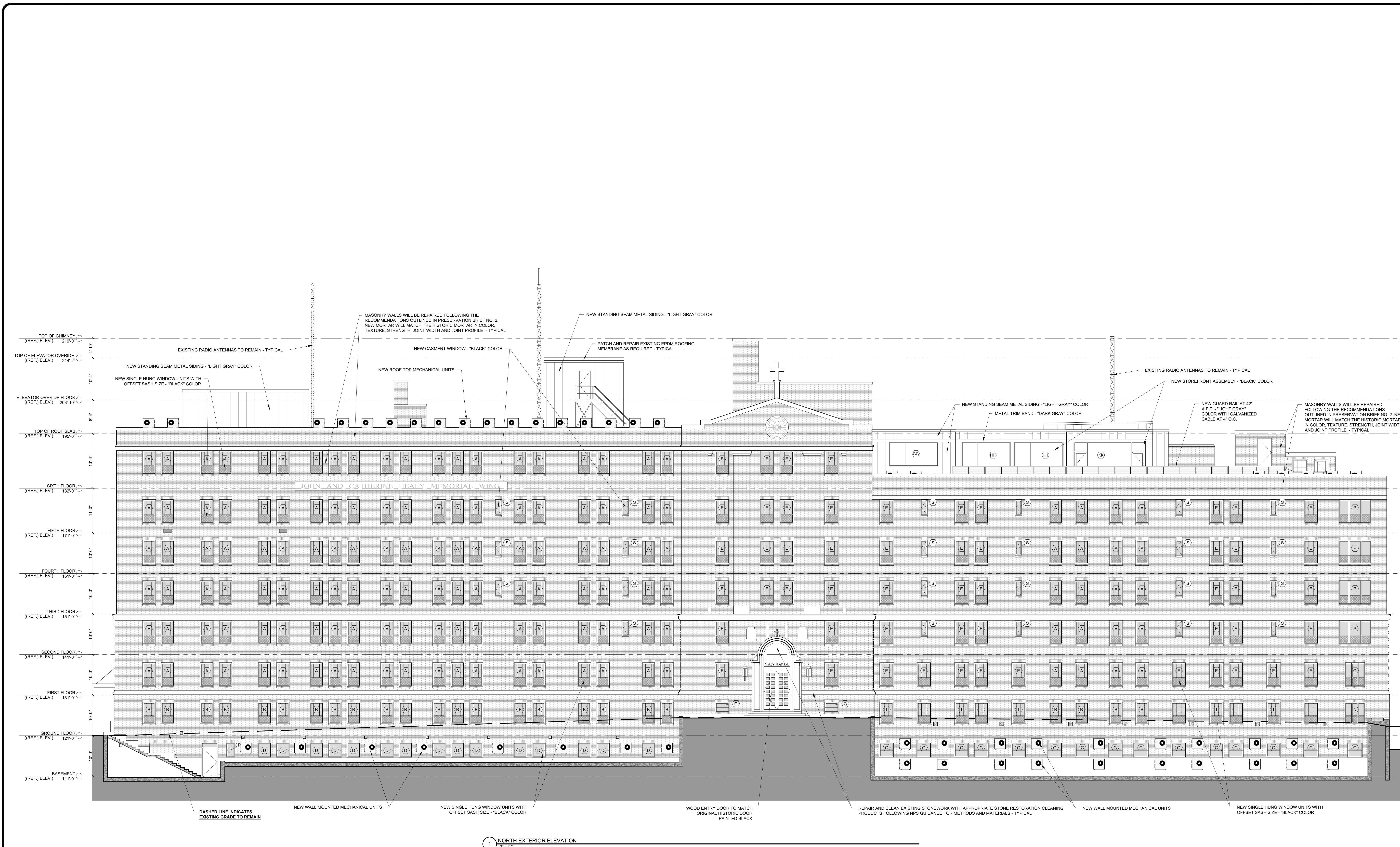
Rendering



Installation

The product can be surface mounted with 4 bolts from the inside to pavement on a concrete foundation block





RESIDENCES AT MERCY HOSPITAL
STATE STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
480 CONGRESS STREET
PORTLAND, MAINE 04101
207-604-6416
senatorearchitecture.com

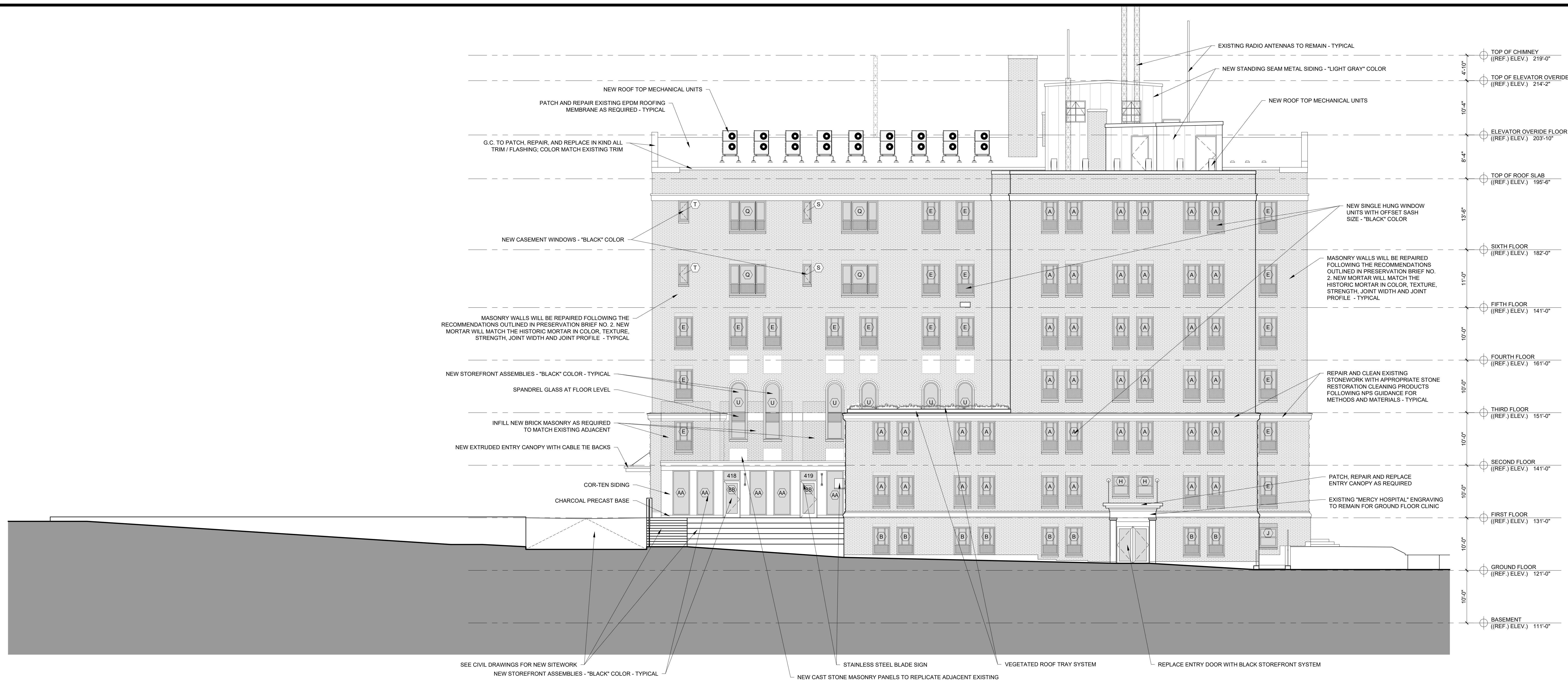
CONSULTANTS:

REVISIONS:

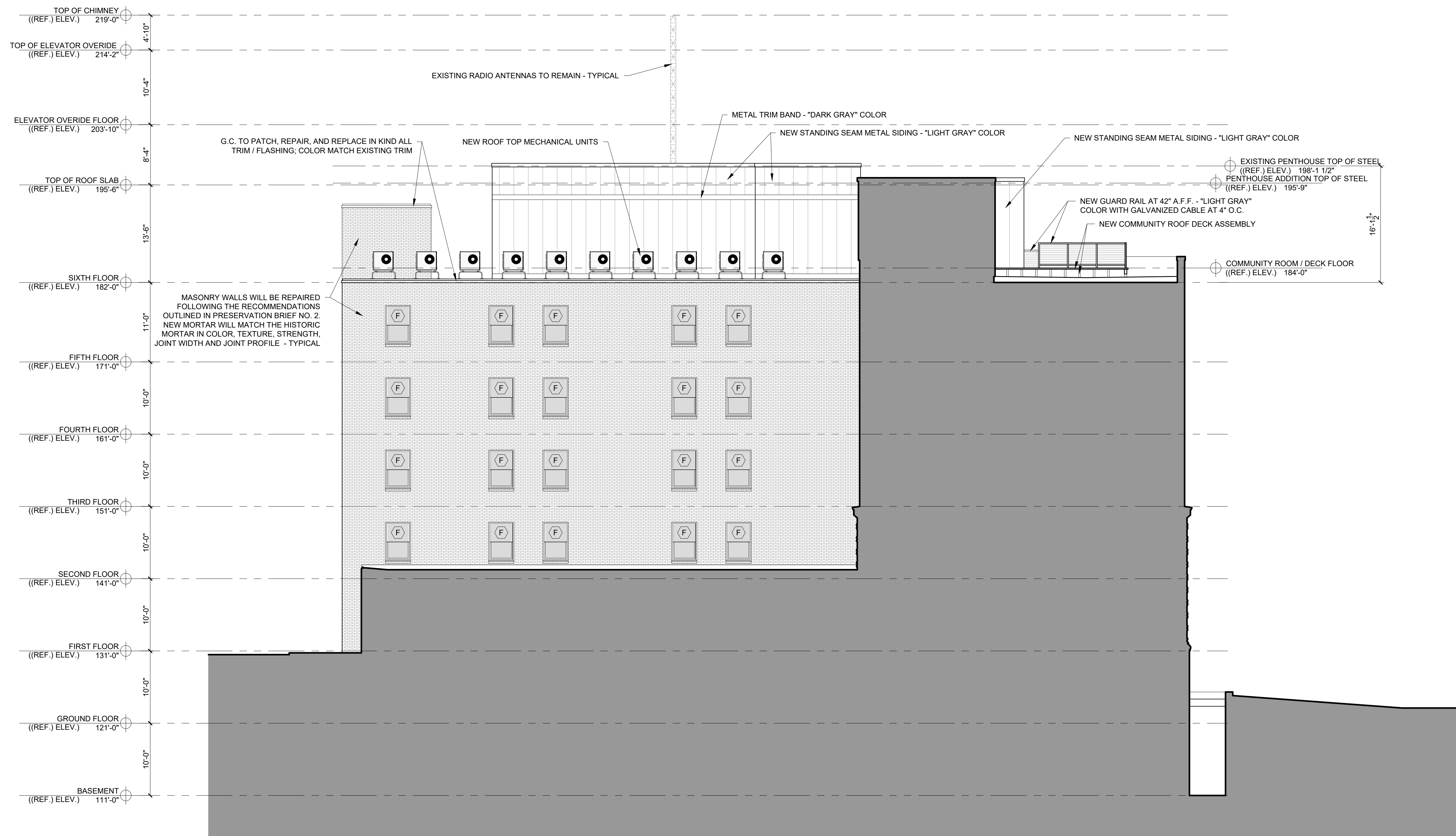
PROGRESS PRINT ONLY
Not for Construction
AUGUST 02, 2021

DATE:
PROJECT No: 2051
DRAWN BY: RJS, JPF
CHECKED BY: RJS
SCALE: AS NOTED
SHEET TITLE:
EXTERIOR
ELEVATIONS

A2-0



1 EAST EXTERIOR ELEVATION
1/8" = 1'-0"



2 EAST EXTERIOR ELEVATION - 1982 ADDITION TO REMAIN
1/8" = 1'-0"

RESIDENCES AT MERCY HOSPITAL
STATE STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
480 CONGRESS STREET
PORTLAND, MAINE 04101
207-404-6414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:

PROGRESS PRINT ONLY
Not for Construction
AUGUST 02, 2021

DATE:

PROJECT No. 2051

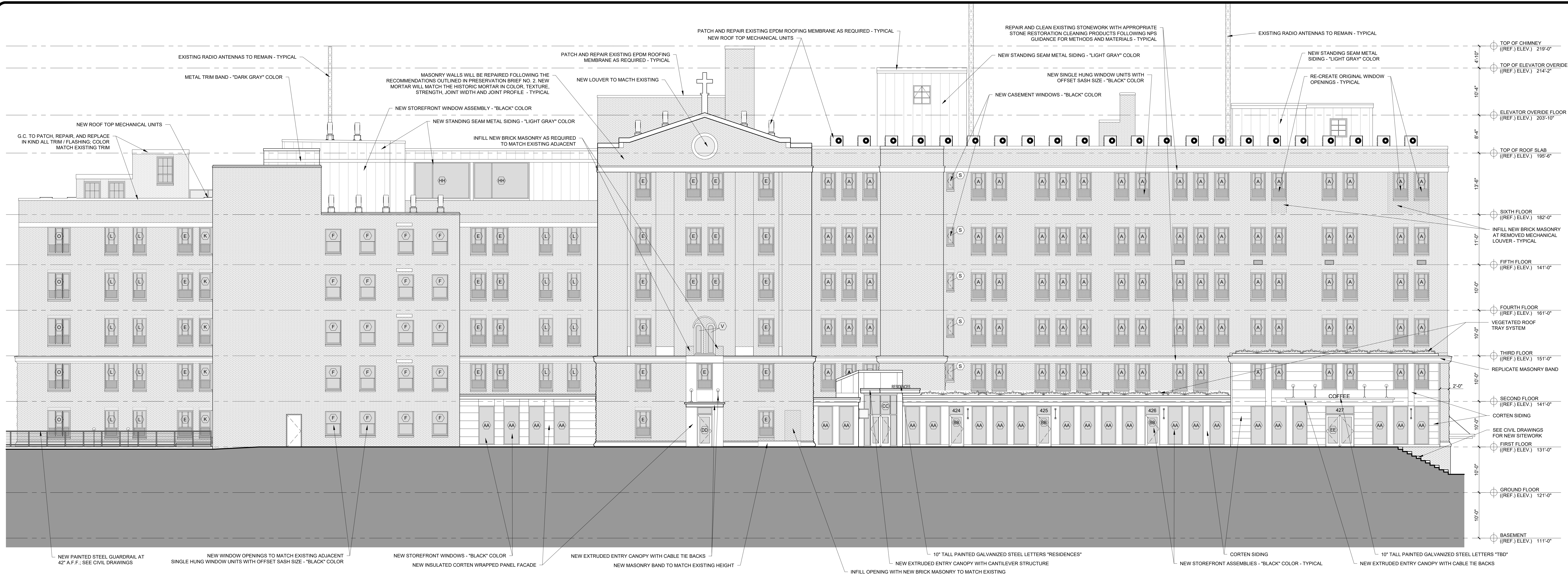
DRAWN BY: RJS, JPF

CHECKED BY: RJS

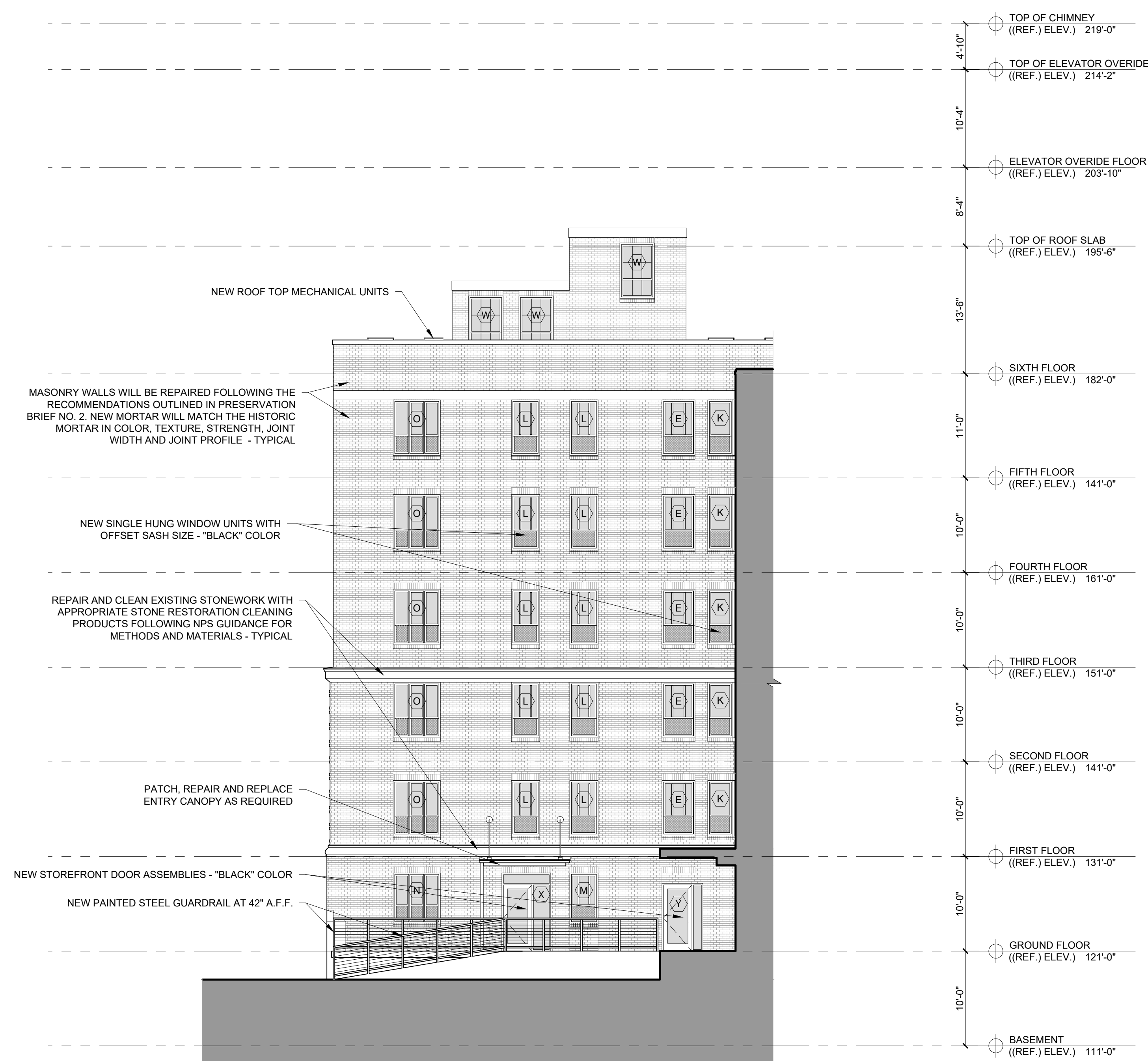
SCALE: AS NOTED

SHEET TITLE:
EXTERIOR
ELEVATIONS

A2-1



1 SOUTH EXTERIOR ELEVATION
1/8" = 1'-0"



2 SOUTH EXTERIOR ELEVATION - AT LOADING DOCK
1/8" = 1'-0"

RESIDENCES AT MERCY HOSPITAL
STATE STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
680 CONGRESS STREET
PORTLAND, MAINE 04101
207-630-6416
senatorearchitecture.com

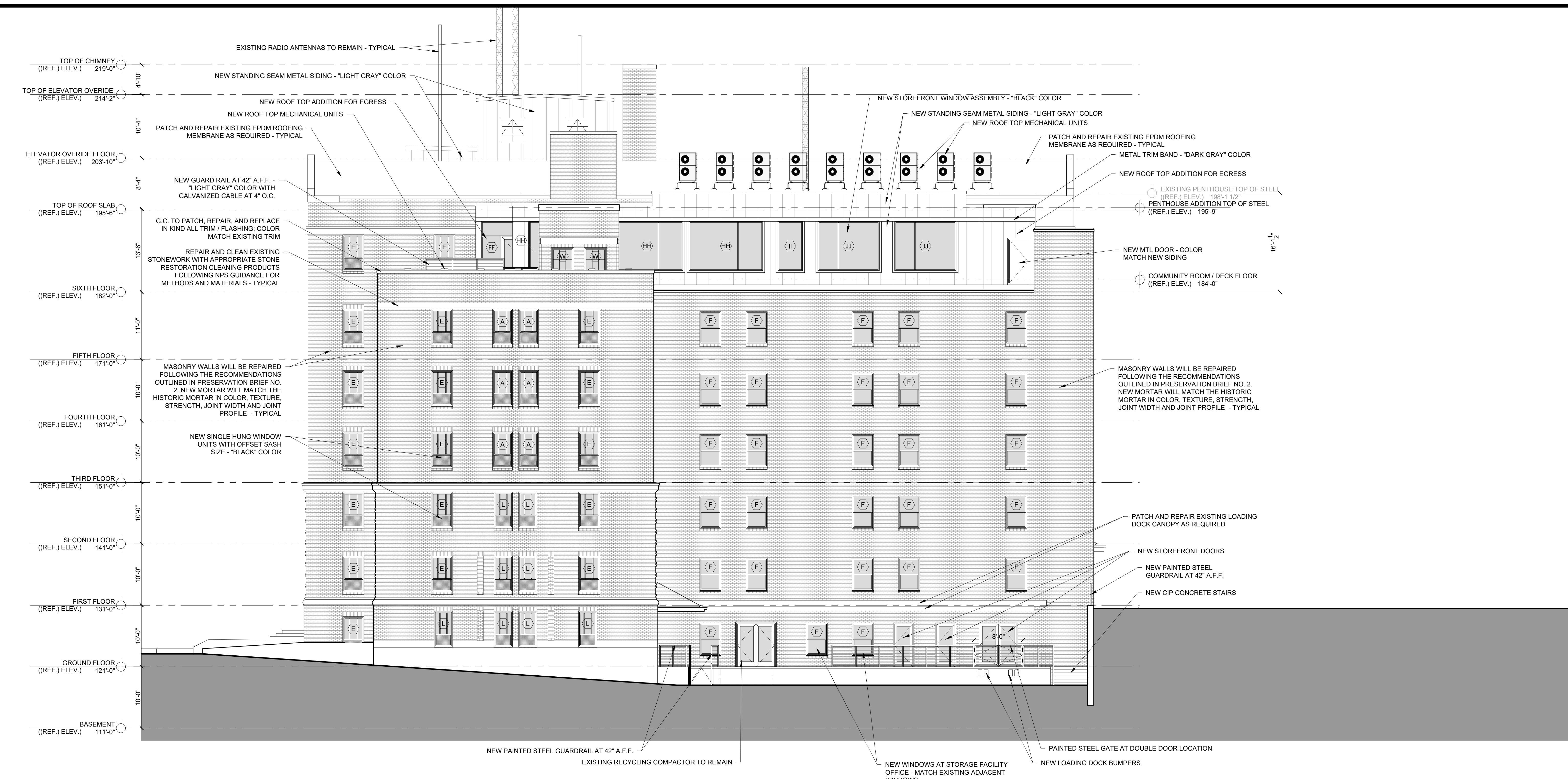
CONSULTANTS:

REVISIONS:

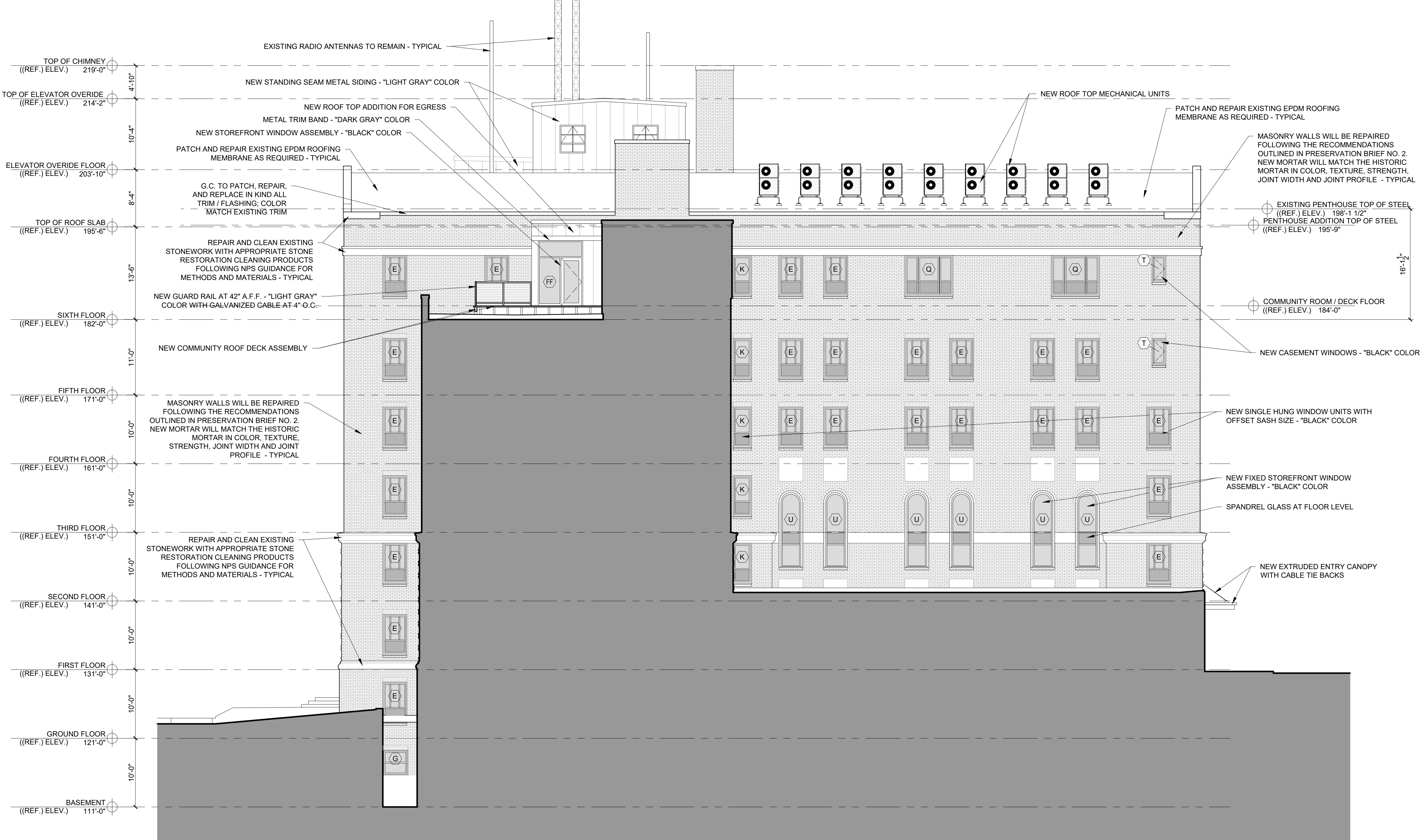
PROGRESS PRINT ONLY
Not for Construction
AUGUST 02, 2021

DATE:
PROJECT No: 2051
DRAWN BY: RJS, JPF
CHECKED BY: RJS
SCALE: AS NOTED
SHEET TITLE:
EXTERIOR
ELEVATIONS

A2-2



1 WEST EXTERIOR ELEVATION
1/8" = 1'-0"



2 WEST EXTERIOR ELEVATION
1/8" = 1'-0"

RESIDENCES AT MERCY HOSPITAL
STATE STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
480 CONGRESS STREET
PORTLAND, MAINE 04101
207-630-8414
senatorearchitecture.com

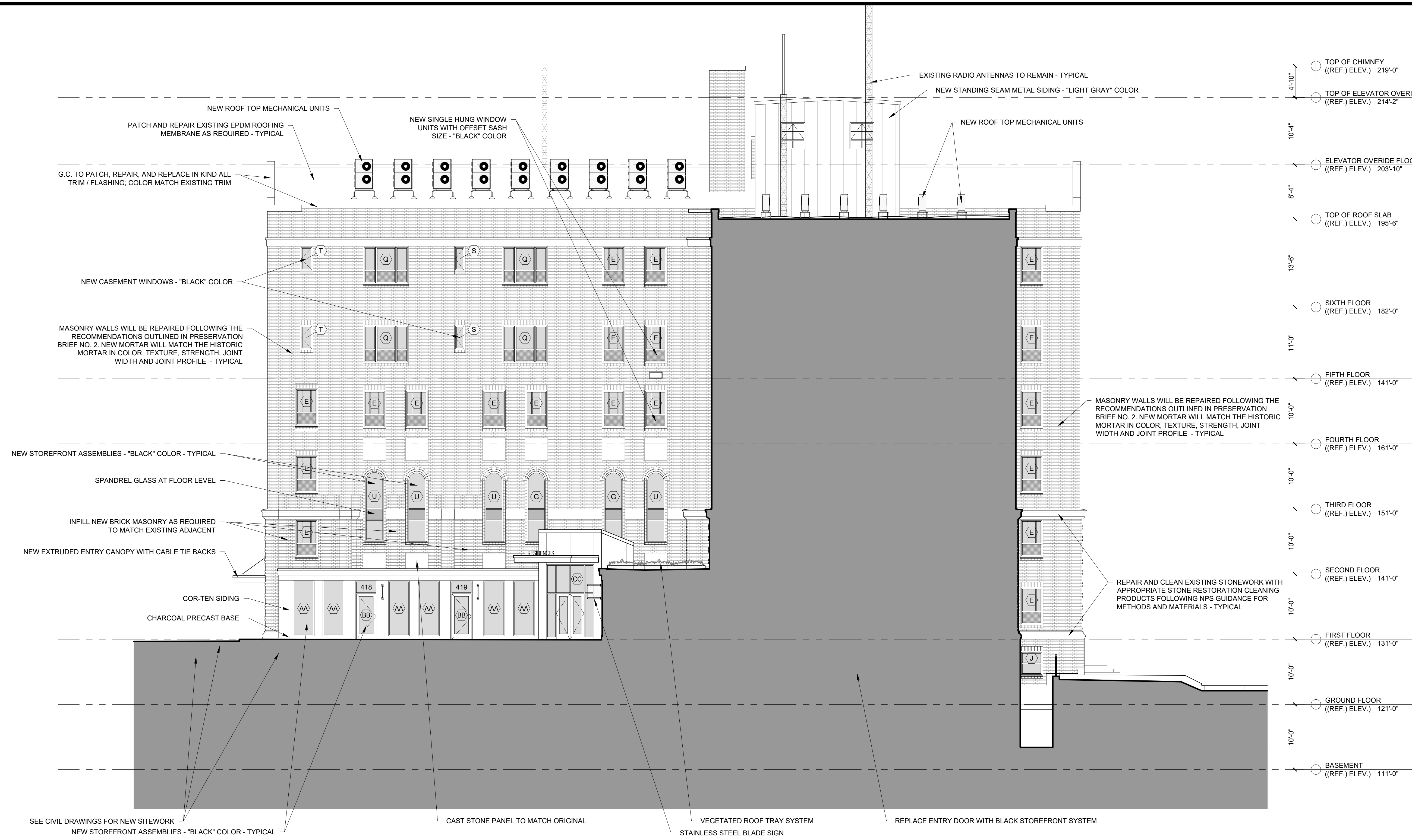
CONSULTANTS:

REVISIONS:

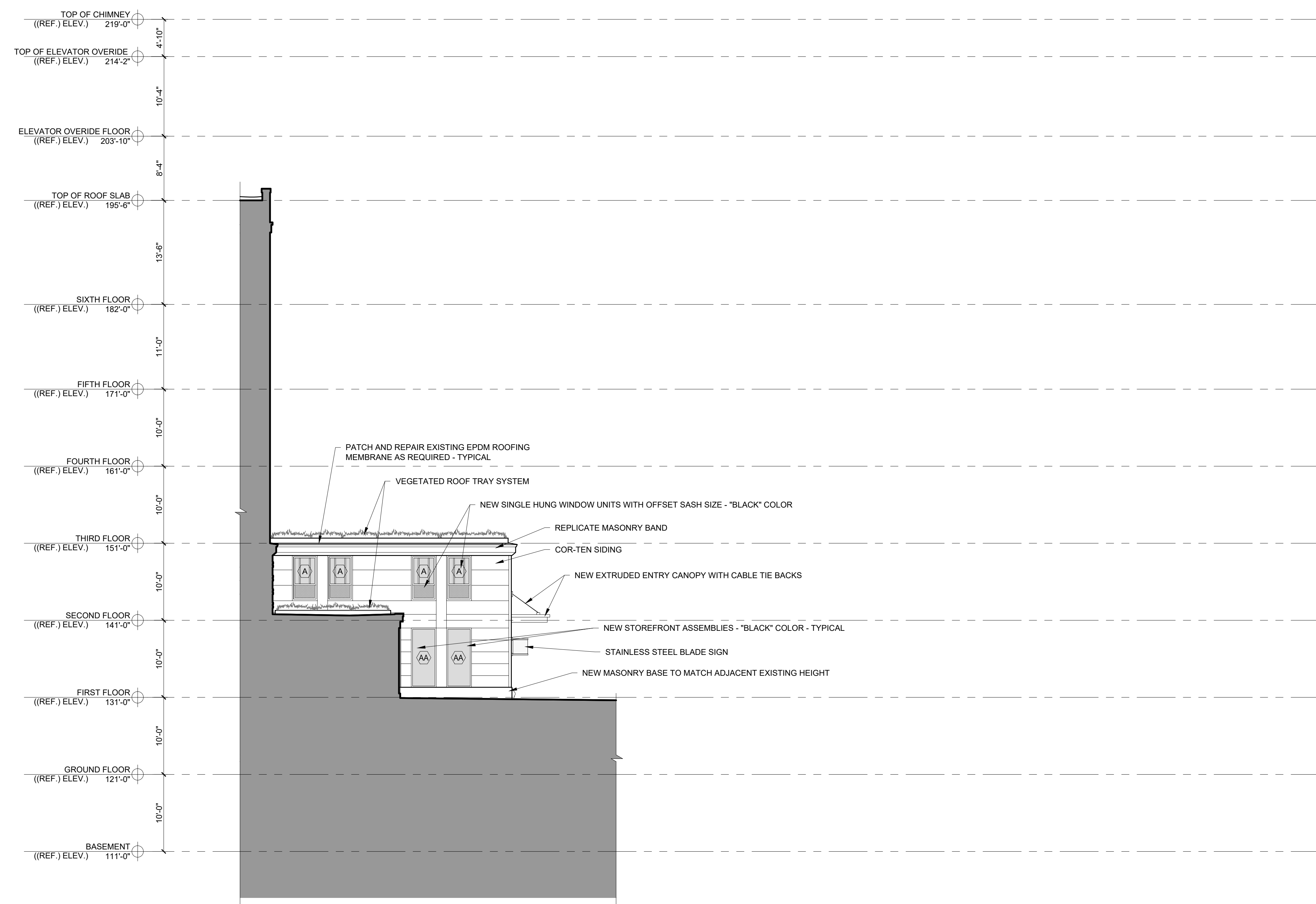
PROGRESS PRINT ONLY
Not for Construction
AUGUST 02, 2021

DATE:
PROJECT No: 2051
DRAWN BY: RJS, JPF
CHECKED BY: RJS
SCALE: AS NOTED
SHEET TITLE:
EXTERIOR ELEVATIONS

A2-3



1 EAST EXTERIOR ELEVATION AT NEW COURTYARD LOCATION
1/8" = 1'-0"



2 WEST EXTERIOR ELEVATION AT NEW COURTYARD LOCATION
1/8" = 1'-0"

RESIDENCES AT MERCY HOSPITAL
STATE STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
480 CONGRESS STREET
PORTLAND, MAINE 04101
207-609-6414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:

PROGRESS PRINT ONLY
Not for Construction
AUGUST 02, 2021

DATE:

PROJECT No. 2051

DRAWN BY: RJS, JPF

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
EXTERIOR
ELEVATIONS

A2-4

1. FOR INFORMATION REGARDING PROPOSED GROUND LEVEL GRADIENT, REFER TO SITE PLAN, SHEET C-10, MOST RECENT VERSION.
2. FOR INFORMATION REGARDING PROPOSED UTILITIES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
3. FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING PLAN, SHEET C-30, MOST RECENT VERSION.
4. TOTAL SITE AREA FOR 120 STATE STREET INCLUDES 2.35 ACRES (102,343 S.F.). TOTAL SITE AREA FOR 148 STATE STREET INCLUDES 0.13 ACRES (5,651 S.F.).
5. PROPOSED SITE AREAS FOR 120 STATE STREET, 148 STATE STREET, 73 WINTER STREET, AND 91 WINTER STREET ARE 1.60 ACRES (69,812 S.F.), 0.13 ACRES (5,651 S.F.), 0.35 ACRES (17,167 S.F.), AND 0.35 ACRES (15,364 S.F.), RESPECTIVELY.
6. R.O.W. WIDTHS FOR STATE STREET, SPRING STREET, AND WINTER STREET ARE 99', 50', AND 40' WIDE, RESPECTIVELY, PER BOUNDARY SURVEY COMPLETED BY OWEN HASKELL, INC. DATED AUGUST 2020.
7. SITE BOUNDARIES PER BOUNDARY SURVEY & TOPOGRAPHICAL MAP WITH EXISTING CONDITIONS PROVIDED BY OWEN HASKELL, INC. ON A PLAN ENTITLED BOUNDARY & TOPOGRAPHIC SURVEY AT 102 & 120 STATE STREET, PORTLAND, MAINE MADE FOR NEWHEIGHT REDFERN, LLC C/O ERIN COOPERRIDER 167 NEWBURY STREET, #503 PORTLAND, MAINE DATED AUGUST 2020.
8. AS OF 5/19/2020, THE SITE IS BOUNDED BY THE B-3 ZONE ON ALL SIDES PER CITY REZONE APPROVAL.
9. LOCUS PARCELS ARE SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 45, BLOCK C, PARCELS 6 (148 STATE ST) AND 7 (120 STATE ST).
10. LOCUS PARCELS DO NOT FALL IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 2300510013B, INDEX DATED 7/17/1986.
11. THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO TWO HUNDRED AND SEVENTY-THREE (265) DWELLING UNITS ON THE EXISTING SUBSIST PROPERTY.
12. THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, RETAINING WALLS, AND SNOW REMOVAL.
13. THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, AT A MINIMUM. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE SUBMITTED STORMWATER MANAGEMENT PLAN AND THE APPROVED PLANS, AND MEET CITY STANDARDS AND STATE GUIDELINES.
14. THE PROPOSED DEVELOPMENT MUST COMPLY TO THE FOLLOWING AS APPROVED BY THE CITY:
 - 14.1. POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT: BOOK: _____ PAGE: _____

1. PREMISES IS SHOWN AS TM 45-C-6 (148 STATE ST) & 7 (120 STATE ST) ON THE CITY OF PORTLAND ASSESSORS MAPS.
2. BEARINGS ARE BASED ON MAGNETIC 1957. COORDINATES ARE BASED ON CITY DATUM UTILIZING THE MONUMENTS SHOWN.
3. THE LOCATIONS OF ALL UTILITIES SHOWN ON THE SURVEY ARE FROM VISIBLE SURFACE EVIDENCE ONLY.
4. ELEVATIONS ARE BASED ON CITY DATUM AS PER MONUMENT T104-45-11 AT CORNER OF CLARK AND SPRING STREETS, ELEVATION = 127.91 FEET.
5. PLAN REFERENCE NOTES:
 - 5.1. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED 3 FEB. 1982 REVISED THROUGH 15 MARCH 1982" BY H.J. & E.C. JORDAN, SURVEYORS.
 - 5.2. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED JUNE 17, 1981 REVISED OCT. 2, 1981" BY H.J. & E.C. JORDAN, SURVEYORS.
 - 5.3. "STANDARD BOUNDARY & TOPOGRAPHIC SURVEY ON STATE STREET, PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED NOVEMBER 30, 1959 REV. 2 OCT. 04, 2012" BY OWEN HASKELL, INC.
 - 5.4. "ALTA/ACSM LAND TITLE SURVEY, 102, 120 (AKA 144) & 148 STATE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR MERCY HOSPITAL AND EASTERN MAINE HEALTHCARE SYSTEMS: FEBRUARY 27, 2013 LAST REVISION DATE: SEPT. 20, 2013 BY OWEN HASKELL, INC.
6. 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 CERTIFIES THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATED 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 PRIORY TO ANY CONSTRUCTION.

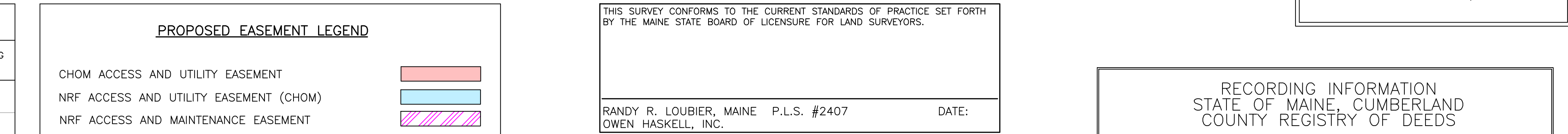
EXISTING EASEMENTS:

1. EASEMENT TO CENTRAL MAINE POWER COMPANY RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 16391, PAGE 232.
2. EASEMENT TO CENTRAL MAINE POWER COMPANY RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 28512, PAGE 45.

PROPOSED EASEMENTS:

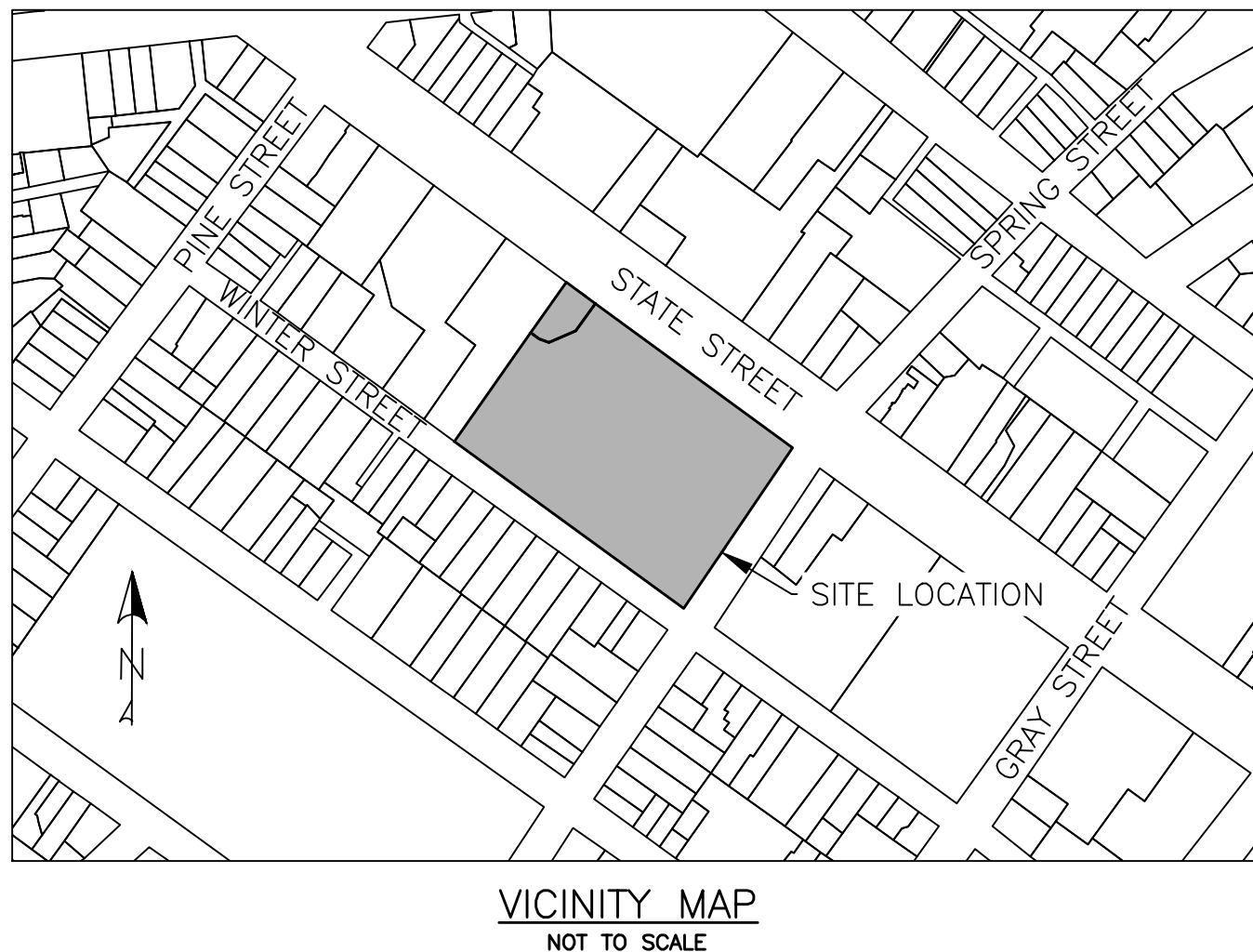
1. ACCESS AND UTILITY EASEMENT FROM NEWHEIGHT REDFERN, LLC TO COMMUNITY HOUSING OF MAINE AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS:
BOOK: _____ PAGE: _____
2. ACCESS AND UTILITY EASEMENT FROM COMMUNITY HOUSING OF MAINE TO NEWHEIGHT REDFERN, LLC AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS:
BOOK: _____ PAGE: _____
3. ACCESS AND MAINTENANCE EASEMENT FROM COMMUNITY HOUSING OF MAINE TO NEWHEIGHT REDFERN, LLC AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS:
BOOK: _____ PAGE: _____
4. PARKING AND SIDEWALK EASEMENT FROM COMMUNITY HOUSING OF MAINE TO NEWHEIGHT REDFERN, LLC AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS:
BOOK: _____ PAGE: _____
5. ACCESS AND UTILITY EASEMENT FROM THE PORTLAND CLUB TO NEWHEIGHT REDFERN, LLC AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS:
BOOK: _____ PAGE: _____
6. MAINTENANCE EASEMENT FROM COMMUNITY HOUSING OF MAINE TO THE CITY OF PORTLAND AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS:
BOOK: _____ PAGE: _____

TBC



<u>PROPOSED EASEMENT LEGEND</u>	
CHOM ACCESS AND UTILITY EASEMENT	
NRF ACCESS AND UTILITY EASEMENT (CHOM)	
NRF ACCESS AND MAINTENANCE EASEMENT	
NRF ACCESS AND UTILITY EASEMENT (PORTLAND CLUB)	
CITY OF PORTLAND MAINTENANCE EASEMENT	
NRF PARKING AND SIDEWALK EASEMENT	
CITY OF PORTLAND ACCESS EASEMENT	

THIS SURVEY CONFORMS TO THE CURRENT STANDARDS OF PRACTICE SET FORTH BY THE MAINE STATE BOARD OF LICENSURE FOR LAND SURVEYORS.		
RANDY R. LOUBIER, MAINE OWEN HASKELL, INC.	P.L.S. #2407	DATE:

[illegible]

DRAWING NAME: SUBDIVISION PLAT
120 & 148 STATE ST, 73 & 91 WINTER ST
PROJECT NAME: MERCY HOSPITAL REDEVELOPMENT
ADDRESS:
CLIENT/OWNER OF RECORD: NEWHEIGHT REDFERN, LLC
217 COMMERCIAL STREET, SUITE 205, PORTLAND ME 04101

ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04101
 (207) 775-2855

FILE:	1140_CIVIL
JN:	1140
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	KRB
CHECKED BY:	WHS

PLAT

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION