

CITY OF PORTLAND, MAINE

PLANNING BOARD



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

AGENDA PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on Tuesday, July 23, 2019, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov.**

WORKSHOP - 4:30 PM

- i. Level III Site Plan, Subdivision, and Inclusionary Zoning; 66 State Street; Developers Collaborative, dba DC 66 State LLC., Applicant. (estimated time 4:30 - 6:00 p.m.) The Planning Board will hold a workshop on the proposed renovation of an existing 3-story building and construction of a new 23,497 sf 4-story building. The existing building is proposed to be converted to a 38-unit lodging house. The proposed new building is proposed to include 30 affordable residential dwelling units to consist of 14 efficiencies and 16 one-bedroom units. Parking is proposed for 22 vehicles and 12 bicycles. The 22,137 sf lot is located in the R-6 zone. The proposal is subject to review under Portland's site plan, subdivision, and inclusionary zoning conditional use standards.

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 JULY 9, 2019

Workshop and Public Hearing: Dundon, Mazer, Dunfey, Eaton, Smith and Stanley present; Silk absent.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON JULY 9, 2019

- i. Level III Site Plan; 1 Center Street; Fathom CC., LLC., Applicant. Mazer moved and Stanley seconded a motion to waive the Technical Manual standard Sec 12.3.4 to allow a maximum light trespass of 7.3 foot-candles at the property line and no more than 1.0 foot-candles at the edge of the public sidewalk. Vote: 6-0, Silk absent. Mazer moved and Stanley seconded a motion to approve the conditional use for inclusionary zoning with the condition that the applicant provide a fee in-lieu contribution of \$513,810 to be paid into the City's Housing Trust Fund. Vote: 6-0, Silk absent. Mazer moved and Stanley seconded a motion to approve the site plan application and associated Site Location of Development amendment with 10 conditions of approval. Vote: 6-0, Silk absent.

- ii. Level III Subdivision, Site Plan and IZ Conditional Use; 46 (40) Free Street; 40 Free Street, LLC., Applicant. Mazer moved and Stanley seconded a motion to waive the required driveway aisle width from 24' to 20'. Vote: 6-0, Silk absent. Mazer moved and Stanley seconded a motion to waive the maximum % of compact parking space provided from 20% to 49%. Vote: 6-0, Silk absent. Mazer moved and Stanley seconded a motion to approve the conditional use for workforce housing with the conditions that the applicant enter into an Affordable Housing Agreement (AHA) with the City before a Building Permit may be issued and that the applicant provide five inclusionary zoning units on site, consisting of two-two bedroom units, and three- one-bedroom units, as well as payment of a fractional fee-in-lieu payment of \$10,609. Vote: 6-0, Silk absent. Mazer moved and Stanley seconded a motion to approve the subdivision application with three conditions of approval. Vote: 6-0, Silk absent. Mazer moved and Stanley seconded a motion to approve the site plan application with one condition of approval. Vote: 6-0, Silk absent.

5. NEW BUSINESS

- i. Technical Manual - Public Safety Standards; City of Portland, Applicant. (estimated time 7:00 - 7:45 p.m.) The Planning Board will hold a public hearing on updates to the City of Portland Technical Manual Public Safety Standards to reflect current requirements, best practices and City conditions.
- ii. Level III Subdivision and Site Plan; 95 Front Street; Portland Housing Authority, Applicant. (estimated time 7:45 p.m.) The Planning Board will hold a public hearing on a proposed redevelopment plan for 95 Front Street. The 4.2 acre site has frontage on West Presumpscot, Front and Illsley Streets. The proposal is to replace 20 buildings consisting of 52 apartments with seven buildings including 105 rental units and eight homeownership units. 80% of the dwelling units are proposed to be affordable house, and the remaining 20% of the dwelling units proposed to be market-rate. A total of 114 parking spaces and 0 bicycle spaces are proposed. The site is in the R-5 zone and is subject to review under Portland's subdivision, site plan, and inclusionary zoning conditional use standards.

Memorandum

Planning and Urban Development Department

Planning Division



To: Sean Dundon, Chair and Members of the Portland Planning Board
 From: Andrew Tufts, Planner
 Date: July 19, 2019
 Re: Development & Redevelopment, 66 State Street, DC 66 State LLC
 Project #: PL-000684-2019 CBL: 044 H001001
 Meeting: July 23, 2019

I. INTRODUCTION

DC 66 State LLC, has submitted a Level III Site Plan, Subdivision and Conditional Use (Inclusionary Zoning) application for the renovation of an existing 3-story building into a lodging house and the construction of a new, 4-story affordable residential building in where there is currently surface parking. A portion of office space will continue to operate on the ground floor of the existing building, as well. The property is located on a 23,497 square foot parcel at 66 State Street on the corner of State and Danforth Streets. The neighborhood is primarily residential with some nearby commercial and institutional uses, is within the R-6 Zone, and the West End Historic District. The proposed new building is also subject to review by the Historic Preservation Board.



Figure 1: Proposed & Existing Rendering, Danforth St.

A total of 256 notices were sent to property owners within 500 feet of the site and a legal ad ran in the July 12th & July 13th 2019 editions of the Portland Press Herald.

Applicant: Developers Collaborative, DC 66 State LLC

Consultants: Michael Tadema-Wielandt, P.E. (Terradyn Consultants, LLC) David Lloyd (Archetype Architects) John Schwanda (Owen Haskell Inc)

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Driveway Aisle width – 20' feet <u>Staff Comments:</u> The City's Traffic Engineer supports a waiver from the City's Technical	Technical Manual, Section 1.14 & Figure I-29, requiring 24.00' wide drive aisle for two-way access aisles with 90 degree parking.

Standards for driveway width given low traffic volumes and traffic characteristics.	
Compact parking spaces – 49% of the provided parking. <u>Staff Comments:</u> The City's Traffic Engineer supports a waiver from the City's Technical Standards for the proposed compact spaces.	Technical Manual, <i>Section 1.14</i> , Parking lots with greater than 10 spaces may be comprised of up to 20% compact parking spaces.
Review	Applicable Standards
Site Plan	<i>Section 14-526</i>
Subdivision	<i>Section 14-497</i>
Inclusionary Zoning (IZ)	<i>Section 14-474, Section 14-487</i>

III. PROJECT DATA

Existing Zoning	R-6 Zone
Existing Use	Surface Parking, Resource Center (including existing office space)
Proposed Use	30 Affordable Housing Units, 38 Lodging House Units, Office Space
Bedroom Mix	14 Efficiencies, 16 one-bedroom units, 38 Lodging House Units
Parcel Size	23,497 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	7417 SF	11,472 SF	4,055 SF
Building Floor Area	22,007 SF	41,770 SF	19,763 SF
Impervious Surface Area	19,654 SF	20,560 SF	906 SF
Parking Spaces	22	22	0
Bicycle Parking Spaces	0	12	12
Estimated Cost of Project	Not Provided		

IV. EXISTING CONDITIONS

The proposed development site is located on the western corner of State and Danforth Streets in Portland's West End neighborhood and is developed with the existing 3-story non profit office and social club building and paved surface parking area. The site is largely impervious due to the existing building and surface parking. The existing building currently houses offices for Amistad and Catholic Charities. The site is bordered by The Maine Irish Heritage Center, operating out of St. Dominic's historic landmark; The Danforth Inn; and private residences. The sidewalk along State Street has recently been improved, while the

sidewalk along Danforth Street is in need up repair. There are also three tree wells along the section of Danforth Street adjacent to the existing Amistad building, which are missing street trees.



Figure 2: Site Axon

Owen Haskell, Inc. completed a boundary and topographic survey of the site in June of 2018. The following are existing easements or burdens associated with the site:

- A 10' conservation easement along the site's southwestern property boundary.
- A 24' wide access easement extending from Danforth Street along the existing parking lot drive aisle to the adjacent lot northwest of the project site.
- A parking easement benefitting the project site and located west of the site along the eastern side of St. Dominic's Condominium (44/H/4)
- A dumpster license allowing a dumpster for St Dominic's Condominium to be located on the project site, as shown on the survey.

The 10' conservation easement will be maintained and replanted as part of this project.

The 24' wide access easement will be relocated and modified as part of this project. Access to the adjacent lot northwest of the project site will be reconstructed during building construction but will remain as an access easement through the site's driveway and parking area. The width will be 20' wide from Danforth Street and narrow to 13.5' wide behind the proposed building.

The parking easement benefitting the project site will remain in place.

The dumpster license agreement with St Dominic's Condominium will be dissolved and the dumpster will be removed from the project site. **(Attachment E)**

V. PROPOSED DEVELOPMENT

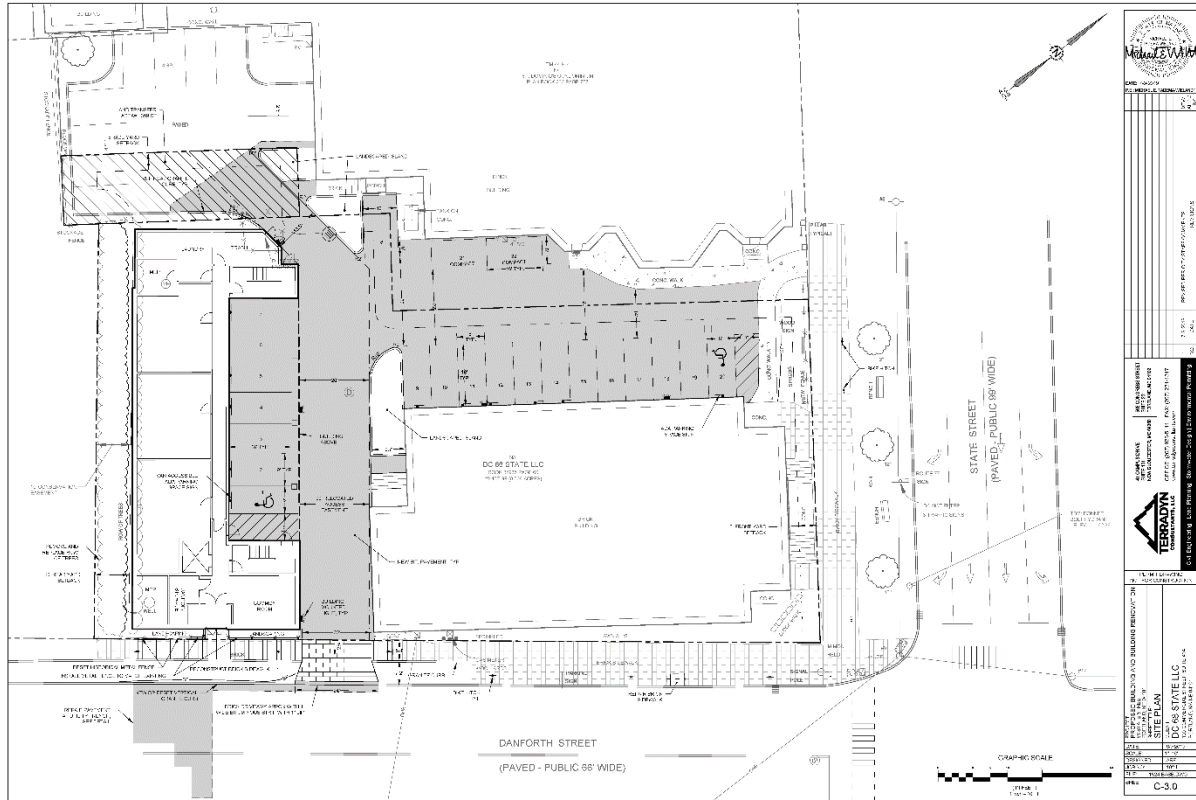


Figure 3: Site Plan

The development is proposed as a new four-story building with thirty affordable residential units, and the renovation of the existing three-story building to provide approximately 38 lodging house rooms. The new building will have residential units on floor one through four made up of sixteen 1-bedroom units and fourteen efficiency units. The new building will also feature a lobby, common room, laundry room, trash room and utility rooms on the first floor. The existing renovated building will also feature a common kitchen and dining area, common bathroom facilities, a utility room housing the geothermal heating equipment, and the continuation of the existing office use for support staff.

The proposed project will involve installation of new utility services to the proposed building. All new utility services will be provided from the franchise utilities available within Danforth Street. The proposed locations of the new utility services are shown on the Utility Plan. The proposed project will receive its water supply from the Portland Water District's (PWD) public water supply system. Separate fire and domestic services will be installed to the building from PWD's existing main in Danforth Street. Terradyn Consultants received an ability to serve letter from PWD on April 2, 2019. CMP currently maintains overhead and underground utilities in the area. Electric utilities for the proposed building will be installed underground from Pole #19 on Danforth Street, to the southeast of the site. Electric utilities currently serving the existing building will remain.



The neighborhood meeting was held on 7-16-19 at 6:00 pm at the Maine Irish Heritage Ctr., lower level function room, 34 Gray Street. There were approximately 32 members of the public in attendance.

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

As evidence to demonstrate sufficient financial and technical capacity, the applicant has provided a letter from Bank of New Hampshire indicating that between the applicant's funds and bank financing, that applicant has sufficient financial capacity to complete the proposed project. Similarly, information has been provided on the development team demonstrating the capacity to design and construct the project.

(Attachment F)

VIII. ZONING ANALYSIS

The property currently lies within the City of Portland R6 zone. The following Space and Bulk requirements apply to the R6 Zone:

R6 Zone Summary Dimensional and Parking Requirements Applied to 66 State Street		
	Required	Proposed
Minimum Lot Size	2,000 sf	23,497 sf (Lot 44-H-1: 22,137 SF Acquisition: 1,359 SF)
Area Per Dwelling Unit	725 sf	785 sf
Area Per Lodging House Rooming Unit	250 sf	618 sf
Minimum Street Frontage	20' ft	99' FT
Front Yard Minimum	5 ft or avg. depth of adjacent front yards	8' ft (existing)
Rear Yard Minimum	10' FT	10' FT
Side Yard Minimum	5 ft, or none on a side street	3' FT (side street)
Maximum Lot Coverage	60%	54%
Maximum Height	45' FT	45' FT
Landscape Open Space	20%	12.6%
Off-Street Parking	27 residential spaces (1 space/unit 30 - 3 units) 8 lodging house spaces (1 space/5 rooms - 38 rooms)	22 spaces (18 residential, 2 abutter, 2 lodging house)

Open Space

A variance has been applied for to the Zoning Board of Appeals, requesting to be allowed a reduction in the required open space from 20% to 12.6%. Final determination by the ZBA is pending. Should the applicant not receive the variance, they would need to revise the site layout to include the required 20% open space.

Residential Density Calculations

Because residential uses and lodging houses are subject to similarly phrased dimensional standards based on total land area, a summary of how each is applied in reviewing site plan and subdivision application follows.

Both the maximum permitted dwelling units and lodging house units are calculated by their respective required land area/unit. The R-6 zone has a residential density calculation of 725 sf per dwelling unit, resulting in a maximum number of dwelling units of 32 for this 23,497 sf parcel. Lodging house rooming units require 250 sf per rooming unit in the R-6 zone, resulting in a maximum of 93 rooming units for the 23,497 sf parcel (Sec. 14-139.(a)).

There are several ways the Zoning Ordinance distinguishes between lodging houses and residential uses. The definition of a dwelling unit in the City's Land Use Code specifically excludes lodging houses:

A building or portion thereof used exclusively for residential occupancy, including single-family, two-family and multi-family dwellings, but not including hotels, lodging houses, sheltered care group homes or tourist homes... (Section 14-47).

The definitions of Dwelling Unit and Lodging House also are distinct from each other by describing their respective required features: private bath and kitchen in the case of a dwelling unit, and common areas including kitchens, and the possibility of meals being provided for occupants on-site in the case of a lodging house. The regulatory distinction between them within the Zoning Ordinance is further reinforced by the R-6 Zone classification of a multi-family use (Section 14-136.(a).2) in the *Residential* use category and Lodging House grouped under *Other* (Sec. 14-136.(b).1). Lastly, the dimensional standard wording for residential uses is minimum *lot area/dwelling unit*, whereas the lodging house dimensional standards wording is *minimum lot area/lodging house rooming unit*, further delineating how the respected uses operate within Zoning.

IX. DEVELOPMENT REVIEW

A. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The applicant has submitted a recording plat. The final plat will need to be revised to reflect any waivers and conditions of approval that relate to the subdivision plan. Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

B. SUBDIVISION (Section 14-496)

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

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

The existing project site is entirely developed and slopes from the western property boundary in an easterly direction towards Danforth. Stormwater runoff from the project site drains both overland across the eastern property boundary towards Danforth Street and through an existing storm drain network on-site that connects to the combined system in Danforth Street.

Post development stormwater runoff will generally follow existing patterns. Runoff from the proposed building roof will be collected in a roof drain and discharged to the on-site stormdrain network. The existing building roof drain will remain.

The existing project site contains approximately 19,654 square feet of impervious surface. Redevelopment of the project site will result in an increase of approximately 882 square feet of impervious area and a total impervious surface of 20,536 square feet. Because the proposed building will be located where parking areas exist today, the proposed project will result in a decrease of non-roof impervious area. Therefore, the project is not required to meet the General or Flooding Standards, and does not meet the threshold for redevelopment standards.

Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the erosion and sediment control plans and details, and inspection and maintenance requirements and offers the following comment (**Attachment 1**):

- I have reviewed their stormwater discussion, and agree that with the proposed minor increase in impervious surface, and reduction in non-roof impervious surface they are not required to comply with the General and Flooding Standards.
- The applicant has noted that they think there is a roof drain connection from the existing building on the site, and they will be doing a site investigation and will add it to the plans. Locating their roof drain is not something that needs to be a condition of approval, but if they aren't planning to do this until they are under construction, I'd suggest it be added as a note on their plans.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

Ability to serve from Portland Water District has been received and provided.

3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

The proposed development is not adding significant vehicular traffic to the site, and a traffic analysis is not required.

4. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

The applicant is proposing that a new 6" sewer service will be installed within Danforth Street to serve the proposed 4-story building. Existing sewer utilities servicing the existing 66 State Street building are expected to be utilized for the lodging house use.

The applicants have received and submitted a Wastewater Capacity Authorization Letter.

5. Comprehensive Plan (Section 14-497 (a) 9)

The development has been designed to be consistent with the City's Master Plan, adopted in June of 2017.

B. SITE PLAN STANDARDS (Section 14-526)

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. Transportation Standards

a. Impact on Surrounding Street Systems and Access and Circulation

ADA compliance is provided at all door locations and for the sidewalk cross-slopes. The parking will be accessed from Danforth Street by a driveway between the existing and proposed buildings. The residential lobby for the proposed building will be located at the ground level on the eastern side and be accessed from the Danforth Street sidewalk. The existing building will continue to be accessed from the existing entrances on State Street.

Improvements will also be made to the pedestrian and vehicular access to the adjacent parking lot northwest of the site used by residences of an abutting Gray Street property.

Mike Tremblay S.E., City Engineering, has provided a number of comments that are found in the attachments, and summarized below:

- The driveway apron detail is not acceptable as a 2% maximum cross-slope will not be achievable over the entire driveway. The driveway slopes from an elevation of 93.58 to somewhere less than 93 feet; even a bottom elevation of 93.00 represents a 4.5% average cross-slope. The driveway should be designed to provide a 5-foot minimum pedestrian walkway that is 2% maximum cross-slope, and the driveway apron should be adjusted accordingly. A detail is attached.

b. Sidewalks

The applicant is proposing improvements to the Danforth Street sidewalk along the project site including improved vehicular entrance to the project site.

Mike Tremblay S.E., City Engineering, has provided a number of comments that are found in the attachments, and summarized below:

- As noted in my previous Comment 5, the orientation of the brick should be the same as the sidewalk, running perpendicular to the path of pedestrian travel. We recognize that this is not what most driveways look like in the area; however, this is the City's policy as of recently. Please correct the orientation of the bricks in the site driveway to match that of the adjacent sidewalk.

- The plan continues to show an extension of the esplanade for a distance of about 28 feet east of the driveway. DPW continues to prefer that this remain brick to create an extended brick sidewalk width between the site driveway

- Field observations conducted by DPW in July 2019 indicate that the sidewalks serving the site along Danforth Street are in poor condition, with significant rutting and heaving, creating an uneven walking surface. Currently, sidewalk reconstruction is only proposed between the site driveway and the western edge of the project frontage. Reconstruction of this sidewalk per City standards should be required between the western edge of the site frontage and the extension of the property line along State Street, where brick sidewalks are in good condition. A detail for brick sidewalk with bituminous base is attached.

c. Public Transit Access

The public transit requirements do not apply to this project.

d. Parking

Per ordinance requirements in the R6 Zone, the proposed project is required to have a total of 35 spaces:

- ☐ 30-unit residential building requires 1 space/unit after the first 3 units = 27 spaces
- ☐ 38-room lodging house building requires 1 space/five rooming units = 8 spaces

The project will have 22 parking spaces within the surface parking lot on-site. Two (2) spaces will be provided for the lodging house use, two (2) spaces will continue to be used by the abutting Irish Heritage Center, and 18 spaces will be for the residential building. The proposed parking ratio for the residential use is 0.6 spaces/unit. This ratio is expected to be sufficient due to the affordable housing nature of the residential units, as well as the fact that many of the units are small efficiencies and the remainder are one-bedroom units. The ratio of 0.6 is consistent with other reduced parking ratios at properties owned by the Applicant, including the Motherhouse at 605 Stevens Avenue.

Development in the R6 zone must follow the parking requirements from Division 20 of the City's Land Use Code. Division 20 gives the Planning Board the ability to reduce total required parking based the applicant demonstrating that the project requires fewer spaces based on unique conditions, parking analysis, demand management techniques, or a combination of these factors.

e. Bicycle Parking

Twelve bicycle parking spaces are required for the proposed development, which will be provided along the Danforth and State Street Frontages.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

A landscaping plan was submitted as part of the application. The plan shows a variety of trees, shrubs, and perennials, all listed in the City of Portland Recommended Tree List.

The applicant will work with the City Arborist to specify a reasonable number of street trees along the site's Danforth Street frontage. Due to the financial difficulty in developing affordable housing in Portland, the applicant is seeking relief from the requirement to contribute to the City's Tree Fund for the remaining required additional street trees.

c. Water Quality, Storm Water Management and Erosion Control

Lauren Swett has reviewed the applicants plans and project details, and offers the following comments (**Attachment 1**):

- a. The Applicant has provided erosion and sedimentation control details and a written plan in accordance with the Basic Standards. Erosion control features have been called out on the Construction Management Plan, sheet C-03.
- b. The Applicant is not increasing impervious surface, and is not required to provide any treatment or flooding control as required for the General and Flooding Standards.
- c. The Applicant is not increasing non-roof redeveloped impervious surface, and is not required to provide any treatment as required for the Redevelopment Standard.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

Mike Thompson, Division Chief of the Fire Prevention and Community Outreach Division, has reviewed the submitted plans and found them to be acceptable, noting the following points (Attachment 1):

The address for the new building shall be assigned to the City of Portland E911 Addressing Officer and clearly marked on the street side of the building using Arabic numerals no less than six inches in height.

Fire department access shall have an unobstructed vertical clearance of not less than 13'6".

b. Availability and Adequate Capacity of Public Utilities

The project will be served by Central Maine Power, the Portland Water District, City Department of Public Works. Evidence of utility capacity has been provided for all but sewer capacity, which is currently being reviewed.

4. Site Design Standards

a. Snow and Ice Loading

Based upon the roof design, it is not anticipated that snow or ice loading will be a concern to pedestrians within the public right-of-way or on the applicant's property.

b. View Corridors

This site is not within a Protected View Corridor as per the "View Corridor Protection Plan" approved by the Portland City Council in 2001.

- c. Historic Resources
The development is located in the West End Historic District and has met with the Historic Preservation Review Board twice. A final hearing on the design of the new building will be held on Wednesday August 7, 2019.
 - d. Exterior Lighting
The applicant has submitted a lighting and photometric plan.
 - e. Noise and Vibration
An ERV fan is to be mounted on the proposed building roof, and will not be visible from State or Danforth Streets, or adjacent sites. It is not anticipated that this equipment will result in adverse conditions related to noise and vibration.

Evidence that the mechanicals will meet the zoning noise standards shall be submitted prior to the issuance of a permit.
 - f. Signage and Wayfinding
All street and wayfinding signage shall meet the requirements of the Manual of Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - Because the site is located in the West End Historic District, any new sign or change in appearance shall be subject to the standards of Article IX and shall require a Certificate of Appropriateness.
 - g. Zoning Related Design Standards
Because this building is in the West End Historic District, the Historic Preservation Board is reviewing the exterior elevations.
5. Construction Management Plan
The applicant has submitted a construction management plan which is currently under review.

C. INCLUSIONARY ZONING – Conditional Use (Section 14-487)

The development located at 66 State Street is proposing to convert the existing building into a lodging house with 38 lodging house units and constructing a new building with 30 units of rental housing within the adjacent parking lot. The new rental units are subject to the inclusionary zoning requirements of Sec. 14-487. The 30-unit rental housing development would provide thirteen (13) units restricted to women earning below 50% AMI (6 efficiencies and 7 one-bedroom), and 17 units restricted to women earning below 60% AMI (8 efficiencies and 9 one-bedrooms). As required by Sec. 14-487, *Ensuring Workforce Housing*, all developments of 10 dwelling units or more are reviewed as conditional uses, and are subject to the inclusionary zoning requirements.

The applicant is providing a greater percentage of affordable units at lower income targets than required by Division 30, Section 14-487. As the project exceeds the affordability requirements of this section, which requires that at least 10% of the units in the project shall meet the definition of workforce housing unit for sale or for rent, the requirement has been met. However, should the designated units identified as affordable units fail to retain their affordability restrictions, the applicant would then be required to provide a minimum of three units designated as workforce housing units.

XII. NEXT STEPS

1. Address staff comments
2. Address additional comments of the Planning Board

3. Prepare final plan submission, including subdivision and site plan submittal for review by the Planning Authority and Planning Board
4. Schedule Public Hearing

XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Planning, Fire and Civil Engineering Comments
2. Public Comment

APPLICANT'S SUBMITTALS

- A. Development Description
- B. Right, Title & Interest
- C. State & Federal Permits
- D. Zoning Assessment
- E. Easements
- F. Financial & Technical Capacity
- G. Construction Management Report
- H. Natural Features
- I. Stormwater Management Report
- J. Consistency with City Masterplan
- K. Utilities
- L. Solid Waste Disposal
- M. Fire Department Letter
- N. Conformity with Applicable Design Standards
- O. HVAC
- P. Neighborhood Meeting
- Q. Checklist – Level 2 & 3
- R. Wastewater Capacity
- S. Lighting

Plans

- Plan 1. Cover Sheet
- Plan 2. General Notes
- Plan 3. Existing Conditions & Demolition Plan
- Plan 4. Site
- Plan 5. Landscape Plan
- Plan 6. Utility & Drainage Details
- Plan 7. Grading Drainage Erosion
- Plan 8. Utility Plan
- Plan 9. Boundary & Topographic Survey
- Plan 10. Construction Management Plan
- Plan 11. Site Details
- Plan 12. Lighting Photometric Plan
- Plan 13. Construction Management Plan
- Plan 14. Erosion & Sediment Control Notes
- Plan 15. Floor Plans
- Plan 16. Elevations
- Plan 17. Danforth South Rendering
- Plan 18. Danforth East Rendering

**Pineland**

Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland

565 Congress Street, Suite 310
Portland, ME 04101

July 9, 2019

Andrew Tufts, City Planner
Planning & Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

**Subject: 66 State Street Mixed Use
Response to Peer Review Comments**

Dear Andrew:

Our office received peer review comments for the above referenced project from Jeff Tarling, City Arborist, Mike Tremblay, P.E., Senior Engineer DPW, Robert Thompson, Fire Department and Lauren Swett, Civil Engineering Peer Review on July 2, 2019. We have reviewed the comments and have prepared the responses presented below. For clarity, each comment is repeated in italics, followed by our response.

Article 1: Landscape, Jeff Tarling, City Arborist

Comment 1: Bench on corner of State and Danforth Streets gets frequent use and should remain or be enhanced.

Response: The bench within the State Street esplanade in front of the project site will remain.

Comment 2: The City Arborist will continue to work with the applicant on selection of tree and plant species on site.

Response: No Response Necessary

Comment 3: Street Trees, existing and proposed should be shown along Danforth Street.

Response: Existing street trees are shown on sheet C-2.1 Existing Conditions and Demolition Plan. One street tree exists along the Danforth Street frontage directly in front of the proposed building. It must be removed for the construction of the building and installation of underground utilities. Three street trees exist along the site's State Street frontage and will remain.

The applicant will work with the City Arborist to specify a reasonable number of street trees along the site's Danforth Street frontage. Due to the financial difficulty in developing affordable housing in Portland, the applicant is seeking relief from the requirement to contribute to the City's Tree Fund for the remaining required additional street trees.

Article 2: Department of Public Works, Mike Tremblay, P.E.

Comment 1: They have several deficiencies in terms of parking aisle widths and parking space sizes, including a high percentage of compact spaces (13/22), too narrow a drive aisle for 4-5 of the spaces, and no turnaround at the end of the parking lot. However, much of these deficiencies exist already. The drive aisle width may be particularly problematic for the handicap space, but I can't find anything in ADA that discusses drive aisle width for accessing a space.

Response: No Response Necessary

Comment 2: Regarding the drive aisle that is as narrow as 14 feet, it is likely that vehicles will use the flush concrete walkway to turn into and out of these spaces. The flush nature of this walkway allows for additional maneuvering space, but may feel less safe for pedestrians and may contribute to maintenance issues on the walkway.

Response: No Response Necessary.

Comment 3: They have two HP spaces. For a 22-space lot, only one is required; however they have two somewhat separate parking areas so providing two is a good idea. However, neither space is technically van-accessible, since for a van space you need an 11-foot wide accessible space with a 5-foot aisle, or an 8-foot space with an 8-foot aisle. Space 1 is a 9-foot space with a 7-foot aisle, so the Applicant should simply restripe that space so it is an 8-foot space next to an 8-foot aisle, and sign that space as a van-accessible space.

Response: Handicap space 1 beneath the proposed building has been re-striped to be 8' wide with an 8' aisle. A label has been added to sheet C-3.0 to specify a van accessible ADA parking space sign. The total width of handicap space 20 is $8' + 7' = 15'$. This is 1' less than a van accessible space but is adjacent to a flush concrete walk so it may be utilized as a van accessible space. A label has been added to sheet C-3.0 to specify an ADA parking space sign.

Comment 4: Typically, new residential uses need to provide street trees. None appear to be proposed.

Response: The applicant will work with the City Arborist and project Landscape Architect to provide street trees along the site's Danforth Street frontage.

Comment 5: The orientation of the bricks in the driveway should be the same as the sidewalk, running widthwise across the driveway, such that long parallel seams do not run along the length of the sidewalk/driveway.

Response: The driveway apron bricks were designed to be oriented in the opposite direction than the sidewalk bricks based on as-built conditions of other recent brick driveway aprons observed within the City of Portland and other projects we recently designed that received City approval. The long parallel seams run against the direction of vehicular traffic but with the direction of pedestrian traffic. If the driveway apron brick orientation does need to be changed to meet City standards, we will work with staff to make these updates.

Comment 6: Typically, driveways that serve 10+ parking spaces need to be 20 feet wide. The diagonal access driveway that serves the existing paved parking area is only 13.5 feet wide. I don't see a way to avoid this, but they may need a waiver regardless for the land transfer.

Response: The applicant will request a waiver as needed to allow this drive aisle to be 13.5' wide. The existing drive aisle into this parking area is approximately 12.8' wide.

Comment 7: The Applicant will be required to repair all of their trenches with one patch, as there are five service connections in close proximity to one another.

Response: The trench will be repaired with one patch as shown on sheet C-2.1. We have added this patch to sheet C-3.0 for clarity.

Article 3: Fire Department, Robert Thompson

Comment 1: The address for the new building shall be assigned by the City of Portland E911 Addressing Officer and clearly marked on the street side of the building using Arabic numerals no less than six inches in height.

Response: No Response Necessary

Comment 2: Fire Department access shall have an unobstructed vertical clearance of not less than 13'6".

Response: No Response Necessary

Comment 3: The Fire Department has no further concerns on V1 of the site plan.

Response: No Response Necessary

Article 4: Civil Engineering Peer Review, Lauren Swett

Comment 1: I have reviewed their stormwater discussion, and agree that with the proposed minor increase in impervious surface, and reduction in non-roof impervious surface they are not required to comply with the General and Flooding Standards.

Response: No Response Necessary

Comment 2: The Applicant has provided erosion & sedimentation control notes and details, but I did not see the ESC measures shown on a plan. Locations of proposed measures (stabilized construction entrance, silt sack, and silt fence) should be shown on the plans. I suggest they include a silt sack on the downstream catch basin on Danforth Street.

Response: Erosion & sedimentation control measures have been added to sheet C-4.0. A silt sack is now included on the downstream catch basin on Danforth Street.

Comment 3: I'd suggest they look at the doorways on the proposed new building – both at the western end of the new building and within the parking area - to make sure site drainage will not affect the doors. Some additional grading detail with spot grades and flow arrows may be necessary.

Response: The spot grades at the building doors within the parking area beneath the proposed building (near parking spot 1), at the trash room and at the western stair were raised slightly to avoid impacts from site drainage.

Comment 4: I do not see a connection for roof runoff from the existing building. I'd suggest they show that on the plan and confirm that the existing connection to the storm drain is adequate for the runoff from both the existing and proposed building.

Response: We believe that there is a roof drain connection from the existing building but do not know the location at this time. We will work to locate this roof drain pipe and add it to the plans.

We trust that the above responses and revised plans (C-3.0 and C-4.0) uploaded to the City's e-plan system address the comments. Please contact me directly with additional questions or concerns.

Sincerely,
TERRADYN CONSULTANTS LLC



Michael E. Tadema-Wielandt, P.E.
Vice President

cc. Kevin Bunker
David Lloyd



Andrew Tufts <atufts@portlandmaine.gov>

66 State Street Workshop Comments

8 messages

Andrew Tufts <atufts@portlandmaine.gov>

Tue, Jul 16, 2019 at 9:14 AM

To: Mike Tremblay <mtremblay@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>

Hello,

Have either of you had a chance to look at the comment response letter for 66 State Street?

If you have any additional comments could you get them to me?

I'm writing to PB MEMO this week and will be out for the next two weeks.

Best,

--

Andrew Tufts
Project Planner
Planning and Urban Development Department

389 Congress Street 4th Floor
Portland, ME 04101
atufts@portlandmaine.gov
(207) 874-8724

Mike Tremblay <mtremblay@portlandmaine.gov>

Tue, Jul 16, 2019 at 10:29 AM

To: Andrew Tufts <atufts@portlandmaine.gov>

Cc: Lauren Swett <lswett@woodardcurran.com>

Andrew,

- As noted in my previous Comment 5, the orientation of the brick should be the same as the sidewalk, running perpendicular to the path of pedestrian travel. We recognize that this is not what most driveways look like in the area; however, this is the City's policy as of recently. Please correct the orientation of the bricks in the site driveway to match that of the adjacent sidewalk.

- The plan continues to show an extension of the esplanade for a distance of about 28 feet east of the driveway. DPW continues to prefer that this remain brick to create an extended brick sidewalk width between the site driveway

- Field observations conducted by DPW in July 2019 indicate that the sidewalks serving the site along Danforth Street are in poor condition, with significant rutting and heaving, creating an uneven walking surface. Currently, sidewalk reconstruction is only proposed between the site driveway and the western edge of the project frontage. Reconstruction of this sidewalk per City standards should be required between the western edge of the site frontage and the extension of the property line along State Street, where brick sidewalks are in good condition. A detail for brick sidewalk with bituminous base is attached.

- It is difficult to verify the cross-slope of the sidewalk. Spot grades are provided only at the driveway, where it appears the sidewalk is 5.8 feet wide with a difference in grade of 0.13 feet. This represents a cross-slope that is slightly over 2.0%. This may be the result of a rounding error; however, please note that ADA allows for no tolerance in sidewalk grades; 2.0% is the maximum allowable cross-slope. DPW generally recommends that sidewalks be designed to a 1.5% cross-slope to allow for some construction tolerance. Additional spot grades are requested along the sidewalk, including on both sides of the driveway and at the bottom of the driveway.

- The driveway apron detail is not acceptable as a 2% maximum cross-slope will not be achievable over the entire driveway. The driveway slopes from an elevation of 93.58 to somewhere less than 93 feet; even a bottom elevation of 93.00 represents a 4.5% average cross-slope. The driveway should be designed to provide a 5-foot minimum pedestrian walkway that is 2% maximum cross-slope, and the driveway apron should be adjusted accordingly. A detail is attached.

Thank you,
Mike

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



[Quoted text hidden]

2 attachments



Figure_I_9A_DrivewayApron_rev2019.pdf
147K



Figure_I_10_BrickSidewalkWithBituminousBase_13march2019.pdf
45K

Andrew Tufts <atufts@portlandmaine.gov>
To: Mike Tremblay <mtremblay@portlandmaine.gov>

Tue, Jul 16, 2019 at 11:23 AM

Thanks Mike!

Also, have you had a chance to look at the parking data on 132 Marginal Way? It came in from Will last week.

[Quoted text hidden]

Mike Tremblay <mtremblay@portlandmaine.gov>
To: Andrew Tufts <atufts@portlandmaine.gov>

Tue, Jul 16, 2019 at 11:38 AM

Andrew,

I'm not seeing it in ePlan, do you have it handy?

-Mike

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



[Quoted text hidden]

Andrew Tufts <atufts@portlandmaine.gov>
To: Mike Tremblay <mtremblay@portlandmaine.gov>

Tue, Jul 16, 2019 at 11:40 AM

Just forwarded it!

[Quoted text hidden]

Andrew Tufts <atufts@portlandmaine.gov>
To: Lauren Swett <lswett@woodardcurran.com>

Wed, Jul 17, 2019 at 3:11 PM

Hey Lauren,

You mentioned at Dev Rev that you would get your comment-response-comments to me sometime soon..

Any chance I could get them this afternoon? Tomorrow is okay too but the sooner the better, so I know what to tell Christine.

Thanks!

[Quoted text hidden]

Lauren Swett <lswett@woodardcurran.com>
To: Andrew Tufts <atufts@portlandmaine.gov>

Wed, Jul 17, 2019 at 4:02 PM

Hi Andrew,

Sorry, I'm just back to my desk after this mornings meeting! I have reviewed. They've addressed my comments on erosion control and grading adequately.

They've noted that they think there is a roof drain connection from the existing building on the site, and they will be doing a site investigation and will add it to the plans. Locating their roof drain is not something that needs to be a condition of approval, but if they aren't planning to do this until they are under construction, I'd suggest it be added as a note on their plans.

Other than that, I have no other 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.

Andrew Tufts <atufts@portlandmaine.gov>

Wed, Jul 17, 2019 at 5:43 PM

7/18/2019

City of Portland Mail - 66 State Street Workshop Comments

To: Lauren Swett <lswett@woodardcurran.com>

Thanks Lauren!

[Quoted text hidden]



PLAN CORRECTIONS REPORT PL-000684-2019 FOR CITY OF PORTLAND

PLAN ADDRESS:	66 State St Portland, Maine 04102	PARCEL:	044 H001001
APPLICATION DATE:	05/24/2019	SQUARE FEET:	0.00
EXPIRATION DATE:		VALUATION:	\$0.00
		DESCRIPTION:	Development of a proposed 4-story affordable housing residential building and the re-development of an existing 3-story building into 38 single room occupancy bedrooms and support services.

CONTACTS	Name	Company	Address
Agent/Representative	Michael Tadema-Wielandt	Terradyn Consultants, LLC	565 Congress Street , 21 Portland, ME 04101

Comments & Corrections Required

City Arborist	Jeff Tarling
Civil Engineering - Third Party Reviewer	Lauren Swett
DPW Document Review	Bill Scott
DPW Engineering	Mike Tremblay

Comment(s)/ Recommendation(s):

1. Utility Plan: Utility trench should be shown on the plan. Given the proximity of the utilities, the trench should have a single trench repair. The gas and UGE trench should extend across the entire width of the roadway.
2. Site plan: The extension of the landscape area north of the driveway should not be shown. This area is brick today and should remain brick.
3. Site plan: One or more street trees should be provided along Danforth Street.
4. Site plan: The orientation of the brick in the site driveway is incorrect. Bricks should run in the same orientation as the adjacent sidewalk.
5. Site plan: Drive aisle in the parking area is too small; 24 feet would generally be required. This reflects an existing condition; vehicles will likely use the flush concrete walk to maneuver into spaces.
6. Site plan: No snow storage is shown on the plan.
7. Site plan: Two HP spaces are provided. Only one is required per 25 spaces, however, given the two buildings that these spaces access, it is a good idea to provide two. Space 1 should be slightly restriped to provide an 8-foot clear area next to an 8-foot HP space; this will allow the space to be an HP Van space (one required). Space 20 may be an HP Van space as well; while the striped clear area isn't wide enough, it is adjacent to a flush concrete walk.
8. Site plan: A waiver will be required for the number of compact spaces (13 out of 22).

DPW Street Openings	Rhonda Zazzara
DPW Water Resources Compliance	Doug Roncarati
DPW Water Resources Engineering	Brad Roland
Fire	Robert Thompson

Comment(s)/ Recommendation(s):

The address for the new building shall be assigned by the City of Portland E911 Addressing Officer and clearly marked on the street side of the building using Arabic numerals no less than six inches in height.

Fire Department access shall have an unobstructed vertical clearance of not less than 13'6".

The Fire Department has no further concerns on V1 of the site plan.

Parking	John Peverada
---------	---------------

Planning

Andrew Tufts

Traffic - Third Party Reviewer

Tom Errico

Transportation/Planning

Bruce Hyman

Zoning

Pool Zoning

Historic Preservation

Pool Historic Preservation

Conditions Required

1 DEVELOPMENT DESCRIPTION

1.1 OVERVIEW

Developers Collaborative, doing business as DC 66 State LLC, intends to renovate an existing 3-story building and construct a 4-story residential building on a 23,497 square foot parcel located at 66 State Street on the corner of State and Danforth Streets in Portland, Maine. The proposed project will result in 30 affordable income-qualified residential units in the new building, and approximately 38 lodging house units and support services in the existing building. The project site is made up of an existing 22,137 SF parcel (Lot 1, Block H, Map 44) owned by DC 66 State LLC and the acquisition of approximately 1,359 SF from the abutting St. Dominic's Condominium parcel (Lot 4, Block H, Map 44). The site is currently developed with the existing 3-story building and paved parking areas.

1.2 PROJECT PURPOSE AND NEED

The proposed project includes redevelopment of a previously developed lot in an area that has utility infrastructure in place and will provide residential units that are compatible with the existing neighborhood.

Parking for the development will be located on site in existing surface parking areas and beneath a portion of the proposed building in a surface lot. Vehicular access to the site will be from Danforth Street in the vicinity of where the site is accessed today. The ground floor of the proposed building will house a lobby for the residential use and utilities. The ground floor of the existing building will also house utilities. Inclusionary Zoning requirements will be satisfied because all of the new units on site will be affordable housing.

1.3 EXISTING CONDITIONS

The existing site is located on the western corner of State and Danforth Streets in Portland's West End neighborhood and is developed with the existing 3-story non-profit office and social club building and paved parking area. Nearly the entire site is covered with impervious surface. Underground utilities in State and Danforth Streets include water, gas, and sewer. Overhead power and telecom services are on poles located on State and Danforth Streets.

The existing 3-story building currently houses offices for Amistad and Catholic Charities as well as Amistad's day drop-in program.

Both State and Danforth Streets feature brick sidewalks with granite curb, and on-street parking exists on Danforth Street. The sidewalk on State Street appears to have been reconstructed recently while the sidewalk on Danforth Street appears to be older. State street also features mature street trees and street lights mounted on utility poles. Vehicular access to the site is from Danforth Street. The street conditions are as follows:

Street Name	Description	On-street Parking	Sidewalk	Notes
State Street	Approximately 40' wide paved way. 100' wide public ROW. One-way traffic in two lanes.	No.	Brick both sides with esplanade.	Sidewalk is new in front of the site.
Danforth Street	Approximately 40' wide paved way. 66' wide public ROW. Two-way traffic in two lanes.	Yes, parallel both sides.	Brick both sides with esplanade.	

State Street abuts the site to the north, Danforth Street abuts the site to the east, The Danforth Inn abuts the site to the south, and residential uses abut the site to the west.

The site has an elevation change of approximately 12' across the parcel. It generally slopes from west to east. Photos of the existing site are provided in Attachment 1-A.

1.4 PROPOSED DEVELOPMENT

The development program includes the following components:

1.4.1 ON-SITE

A new four-story building with a footprint of 5,449 square feet will be constructed on the site to provide 30 affordable residential units, and the existing 7,303 square foot building will be renovated to provide approximately 38 lodging house bedrooms. The new building will feature ground floor parking and 30 residential units on floors 1 through 4 made up of 16 1-bedroom units and 14 efficiency units. The new building will also feature a lobby, common room, laundry room, trash room and utility rooms on the first floor. The existing renovated building will also feature a common kitchen and dining area, common bathroom facilities, a utility room housing the geothermal heating equipment, and office space for support staff. The proposed project is within the R6 zone. Elevation views and perspective renderings of the proposed building are provided in Attachment 1-B.

The parking will be accessed from Danforth Street by a driveway between the existing and proposed buildings. The residential lobby for the proposed building will be located at the ground level on the eastern side and be accessed from the Danforth Street sidewalk. The existing building will continue to be accessed from the existing entrances on State Street. Bicycle storage will be provided at bike hitches along the Danforth and State Street frontages. Solid waste storage areas are proposed on the first floor of both the existing and proposed buildings. The mail slots for the 30 proposed units will be located in the proposed building lobby as shown on the architectural plans.

1.4.2 OFF-SITE IMPROVEMENTS

The applicant is proposing improvements to the Danforth Street sidewalk along the project site including improved vehicular entrance to the project site. Improvements will also be made to the pedestrian and vehicular access to the adjacent parking lot northwest of the site used by residences of an abutting Gray Street property.

1.5 TRAFFIC

The 30-unit affordable residential apartment project is expected to generate 163 vehicle trips during an average weekday, and 12 trips during the PM peak hour. Trip generation data was taken from the ITE Trip Generation Manual, 10th edition; trip calculations are found below:

Multifamily Housing (Mid-Rise)

- 5.44 trips/unit on an average weekday * 30 units = 163.2 trips/weekday
- 0.41 trips/unit during the PM peak hour * 30 units = 12.3 trips/PM peak hr

The approximately 38 lodging house bedrooms will generate traffic based on employee trips. Employee trips are expected to generate 32 vehicle trips during an average weekday, and 8 trips during the PM peak hour. Trip generation data was taken from the ITE Trip Generation Manual; trip calculations are found below:

Small Office Building

- 7.98 trips/employee on an average weekday * 4 employees = 31.9 trips/weekday
- 1.91 trips/employee during the PM peak hr * 4 employees = 7.6 trips/PM peak hr

The project is expected to generate a total of 195 vehicle trips during an average weekday, and 20 trips during the PM peak hour, however, the overall traffic generation of this project is expected to be less than estimated due to the affordable housing nature of the residences, and the project proximity to places of work and entertainment, which will encourage walking and alternative modes of transportation. The relatively small amount of traffic that will be generated by the project is not expected to have a significant effect on the surrounding street network.

1.6 PARKING

Per ordinance requirements in the R6 Zone, the proposed project is required to have a total of 35 spaces:

- 30-unit residential building requires 1 space/unit after the first 3 units = 27 spaces
- 38-room lodging house building requires 1 space/five rooming units = 8 spaces

The project will have 22 parking spaces within the surface parking lot on-site. Two (2) spaces will be provided for the lodging house use, two (2) spaces will continue to be used by the abutting Irish Heritage Center, and 18 spaces will be for the residential building. The proposed parking ratio for the residential use is 0.6 spaces/unit. This ratio is expected to be sufficient due to the affordable housing nature of the residential units, as well as the fact that many of the units are small efficiencies and the remainder are one-bedroom units. The ratio of 0.6 is consistent with other reduced parking ratios at properties owned by the Applicant, including the Motherhouse at 605 Stevens Avenue. The applicant's professional management experience indicates fewer parking spaces per unit when the units are small works from a marketing and management perspective.

Twelve bicycle parking spaces are also required, which will be provided at bike hitches along the Danforth and State Street frontages.

1.7 UTILITIES AND STORMWATER

The proposed project will include the installation of new utility services to the proposed building. Utility services to the existing building will remain. All new utility services will be provided from the existing utilities available within Danforth Street. The proposed locations of the new utility services are shown on the Utility Plan (Sheet C-5.0). More information on proposed utility services is provided in Section 11 of this application.

Post-development stormwater runoff will closely follow existing runoff patterns. Runoff from portions of the site and the proposed building roof will enter the existing on-site stormdrain system. The proposed project results in an increase of approximately 882 SF of impervious area, but a decrease in non-roof impervious coverage. More information on stormwater runoff from the site is provided in Section 9 of this application.

1.8 ATTACHMENTS

Attachment 1-A – Existing Site Photographs

Attachment 1-B – Building Elevation Views & Renderings

ATTACHMENT 1-A

Existing Site Photographs

EXISTING SITE PHOTOGRAPHS

66 STATE STREET, PORTLAND, MAINE
DEVELOPERS COLLABORATIVE



Photo 1 – Existing 66 State Street building taken from Danforth Street looking northeasterly.



Photo 2 – Danforth Street sidewalk and existing driveway apron to the site, looking westerly.

EXISTING SITE PHOTOGRAPHS

66 STATE STREET, PORTLAND, MAINE
DEVELOPERS COLLABORATIVE



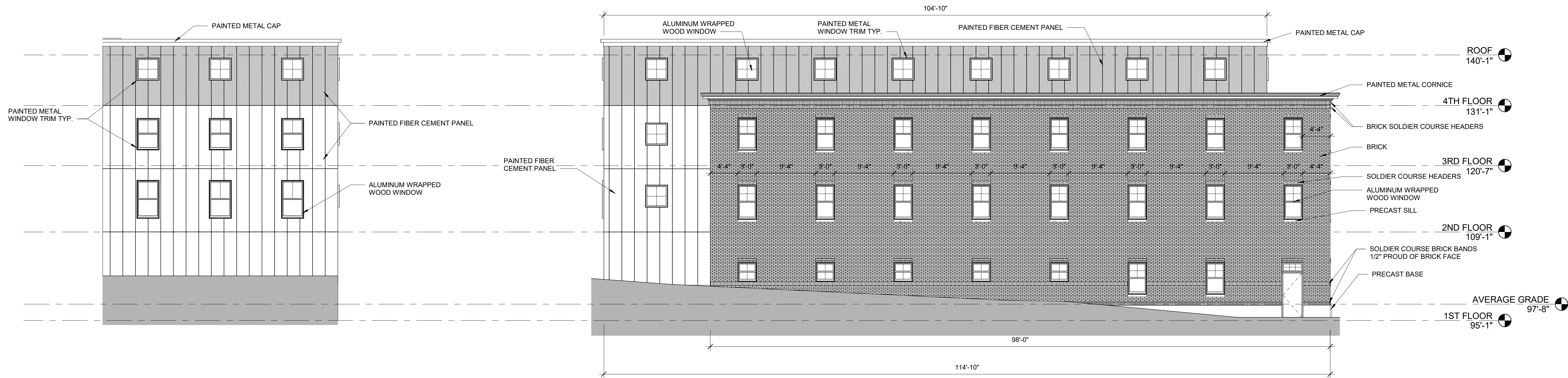
Photo 3 – Interior of the site with surface parking lot looking northeasterly. 66 State Street building located on the right and abutting church building located on the left.



Photo 4 – Proposed building site on the existing parking lot. Looking southerly from the abutting parking lot.

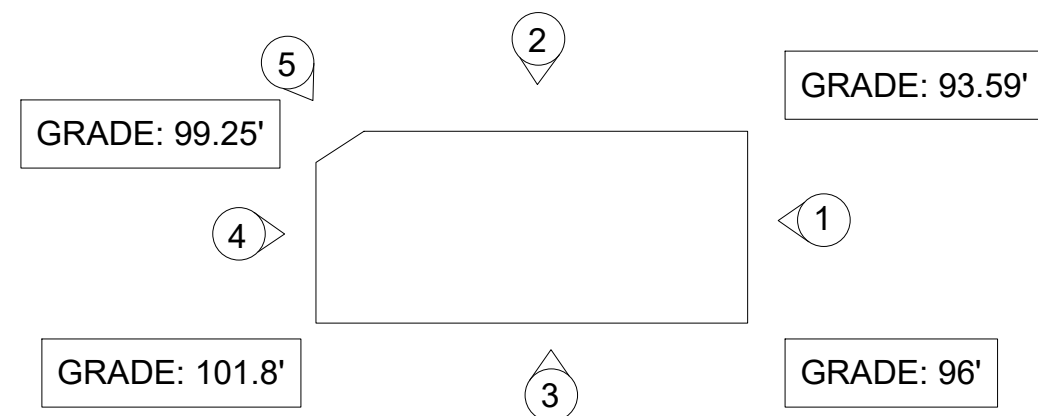
ATTACHMENT 1-B

Building Elevation Views & Perspective Renderings



4 | REAR ELEVATION
1/8" = 1'-0"

3 | WEST ELEVATION
1/8" = 1'-0"



GENERAL NOTE:
1. DARKEST BRICKS CULLED FROM OLD PORT BLEND TO BE USED FOR ALL SOLDIER COURSES.

GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: GRADE TAKEN AT THE FOUR (4) BUILDING CORNERS DIVIDED BY FOUR (4) - $96.00' + 93.59' + 101.8' + 99.25' = 390.64' / 4 = 97'8"$
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = $43' - 9 \frac{3}{4}"$



1 | DANFORTH ST ELEVATION
1/8" = 1'-0"

2 | EAST ELEVATION
1/8" = 1'-0"

5 | REAR CORNER ELEVATION
1/8" = 1'-0"

Prepared For:		Owner	
Consultant:		Address City, State	
Architect:		ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-0022 ARCHETYPE@ARCHETYPEPA.COM	
Project:		66 STATE STREET NEW BUILDING PORTLAND, ME 04101	
Revisions:		Date: 6 JUNE 2019 Scale: 1/8" = 1'-0"	
Building Elevations		A2.01	





2 RIGHT, TITLE and INTEREST

2.1 OVERVIEW

The applicant and owner is DC 66 State LLC by deed recorded in the Cumberland County Registry of Deeds in book 34935, page 60. A copy of the property deed is attached in attachment 2-A.

The applicant plans to acquire approximately 1,349 SF of land from the abutting St. Dominic's Condominium parcel (Map 44, Block H, Lot 4). An easement agreement between DC 66 State LLC and St. Dom's Housing Associates Limited Partnership and Maine Irish Heritage Center describes the "transfer area" to be conveyed to DC 66 State LLC and is included in Attachment 2-B.

2.2 ATTACHMENTS

Attachment 2-A – Property Deed

Attachment 2-B – Easement Agreement

ATTACHMENT 2-A

Title, Right, or Interest Documentation

DLN : 1001840030514

QUITCLAIM WITH COVENANT DEED

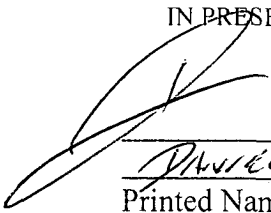
KNOW ALL BY THESE PRESENTS, THAT CATHOLIC CHARITIES MAINE, a Maine nonprofit corporation, ("Grantor"), in consideration of One Dollar (\$1.00) and other valuable considerations paid by DC 66 STATE LLC, a Maine limited liability company with a place of business and mailing address of 100 Commercial Street, Suite 414, Portland, Maine 04101 ("Grantee"), the receipt of which consideration it does hereby acknowledge, does hereby GRANT unto the said **DC 66 STATE LLC**, WITH QUITCLAIM COVENANT, land with the buildings and improvements thereon located in the City of Portland, Cumberland County, Maine, more particularly described in Exhibit A attached hereto and made a part hereof.

To have and to hold the same, together with all the privileges and appurtenances thereunto belonging to the said Grantee, its successors and assigns forever.

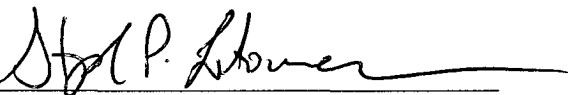
In Witness Whereof, the said Catholic Charities Maine, has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Stephen Letourneau, its Chief Executive Officer, duly authorized, this 21 day of June, in the year of our Lord Two Thousand Eighteen.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF

CATHOLIC CHARITIES MAINE


DANIEL J. BAZEMORE, CFO
Printed Name of Witness

By:

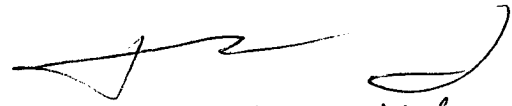

Stephen Letourneau,
its duly authorized
Chief Executive Officer

STATE OF MAINE
County of Cumberland

June 21, 2018

Personally appeared the above named Stephen Letourneau in his said capacity duly authorized, and acknowledged the above instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,


Notary Public

Print name: Thomas A. Kelly, Esq.
My Commission Expires: Bar No. 7555

MAINE REAL ESTATE TAX PAID

EXHIBIT A

A certain lot or parcel of land, together with the building and improvements thereon, situated at the northwesterly corner of State Street and Danforth Street in the City of Portland, County of Cumberland, State of Maine, known as 66 State Street, Portland, Maine, and further described as follows:

Beginning at a monument at the said Northwesterly corner of State Street and Danforth Street; thence by said State Street N-39°-49'-50"-W, 98.99 feet to a capped 5/8" reinforcing rod;

Thence through land of the Roman Catholic Bishop of Portland by a line which is parallel with and ten (10.00) feet from the closest brick face of Saint Dominic's Church to Danforth Street, S-50°-34'-15"-W, 119.91 feet to a capped 5/8" reinforcing rod;

Thence continuing through said land of the Roman Catholic Bishop of Portland by two lines which are parallel with and ten (10.00) feet from the brick face of the school building attached to Saint Dominic's Church on the following described courses and distances, N-39°-30'-45"-W, 28.11 feet to a capped 5/8" reinforcing rod;

Thence S-50°-06'-00"-W, 84.07 feet to a capped 5/8" reinforcing rod;

Thence continuing through said land of the Roman Catholic Bishop of Portland by a line which is parallel with and ten (10.00) feet from the most Easterly portion of the Saint Dominic's Church Rectory building, that portion being the brick line of a basement entry doorway S-37°-11'-50"-E, 119.66 feet to a drill hole at the Northerly sideline of said Danforth Street;

Thence by said Danforth Street N-52°-26'-30"-E, 209.49 feet to the point of beginning.

The above described bearings are magnetic 1904.

The above described lot contains 22,159 square feet +/-.

Being the same premises describe in a deed dated June 15, 1992 from The Roman Catholic Bishop of Portland to The Alliance for the Mentally Ill of Greater Portland, which deed is recorded in the Cumberland County Registry of Deeds in Book 10127, Page 81.

Further meaning to convey all easements granted by The Roman Catholic Bishop of Portland to The Alliance for the Mentally Ill of Greater Portland as set forth in said deed dated June 15, 1992 and recorded in Book 10127, Page 81.

This deed is conveyed subject to exceptions and reservations made by The Roman Catholic Bishop of Portland to The Alliance for the Mentally Ill of Greater Portland, Inc., by deed of June 15, 1992, and recorded in Book 10127, Page 81, as cited above.

This property is also conveyed subject to rights and easements granted to Central Maine Power Company and New England Telephone & Telegraph Company in an instrument dated December 20, 1977 and recorded in the Cumberland County Registry of Deeds in Book 4171, Page 171.

The property is conveyed subject to matters shown on a plan entitled "Land Title Survey of Amity Center Lot, 66 State Street, Portland, Maine, Record Owner: The Roman Catholic Bishop of Portland" by Owen Haskell, Inc. dated August 22, 1991, revised through December 2, 1991 (Job No. 91132P), as further revised through June 16, 1992 and recorded in the Cumberland County Registry of Deeds in Plan Book 192, Page 137; and re-recorded December 7, 1994 in Plan Book 194, Page 436.

The property is conveyed subject to interests of the Roman Catholic Bishop of Portland, Winter Danforth Corporation, Alliance for the Mentally Ill of Greater Portland, the City of Portland and Barbara Hathaway, and each of their respective heirs and assigns under a certain Consent Judgment in the matter of City of Portland et al v. Winter Danforth Corporation, et al, dated October 5, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16943, Page 244.

The property is conveyed subject to interests of the St. Dominic's Condominium Association, St. Dominic's Housing Associates Limited Partnership, and Banknorth, NA, and each of their respective heirs and assigns under a certain License Agreement, dated December 30, 2002 and recorded in the Cumberland County Registry of Deeds in Book 18663, Page 101 and a certain Consent to Assignment of License as Collateral dated December 30, 2002 and recorded in said Registry in Book 18663, Page 103.

FOR GRANTOR'S SOURCE OF TITLE, reference may be had to deed from The Alliance for the Mentally Ill of Greater Portland, Inc. to Catholic Charities Maine, dated June 30, 1994, and recorded in the Cumberland County Registry of Deeds at Book 11522, Page 123.

Received
Recorded Register of Deeds
Jun 21, 2018 01:44:11F
Cumberland County
Nancy A. Lane

ATTACHMENT 2-B

Easement Agreement

EASEMENT AGREEMENT

This Easement Agreement is entered into by and between the **MAINE IRISH HERITAGE CENTER**, (f/k/a the Irish Heritage Center), a Maine nonprofit corporation with a place of business in Portland, Maine (“MIHC”), and **ST. DOM’S HOUSING ASSOCIATES LIMITED PARTNERSHIP**, a Maine limited partnership with a place of business in Portland, Maine (“St. Dom’s”), and **DC 66 STATE LLC**, a Maine limited liability company with a place of business in Portland, Maine (“DC”) (MIHC, St. Dom’s, and DC are collectively referred to as the “Parties”), in order to determine the ownership and easement rights of each of the Parties relating to certain adjacent properties in the City of Portland, Maine owned by the Parties.

Whereas, MIHC, by virtue of a deed dated December 30, 2002 and recorded in said Registry of Deeds in Book 18630, Page 276, is the owner of Unit 2 (the “MIHC Property”) as described in the Declaration of Condominium for St. Dominic’s Condominium (the “Condominium”) dated December 30, 2002 and recorded in the Cumberland County Registry of Deeds in Book 18630, Page 258 (the “Declaration”), together with said Unit’s percentage interests in the common elements and rights to limited common element;

Whereas, St. Dom’s, by virtue of a deed dated December 30, 2002 and recorded in said Registry of Deeds in Book 18630, Page 274, is the owner of Unit 1 (the “St. Dom’s Property”) as described in the Declaration, together with said Unit’s percentage interests in the common elements and rights to limited common element;

Whereas, DC, by virtue of a deed dated June 21, 2018 and recorded in said Registry of Deeds in Book 34935, Page 60, is the owner of certain land with the improvements thereon at the northwesterly corner of State Street and Danforth Street in Portland, Maine (the “DC Property”);

Whereas, the MIHC Property, the St. Dom’s Property, and the DC Property are shown on various plans, including but not limited to (i) the Condominium Plat entitled “Condominium Plat St. Dominic’s Condominium” prepared by TFH Architects, dated December 17, 2002 and recorded in Cumberland County Registry of Deeds in Plan Book 202, Page 757, and (ii) the unrecorded plan entitled “As-Built Plan on Gray Street, Portland, Maine” prepared for St. Dominic’s Housing Limited Partners by Owen Haskell, Inc., dated March 10, 2004; and (iii) the unrecorded plan entitled “Boundary & Topographic Survey at 66 State Street and Danforth Street, Portland, Maine” prepared for Archetype PA by Owen Haskell, Inc., dated June 14, 2018 (collectively the “Existing Plans”);

Whereas, the Existing Plans depict the existing conditions, including the 24’ wide access easement running to/from Danforth Street to the parking areas of the Condominium;

Whereas, DC would like to relocate and reconfigure the 24’ wide access easement running to/from Danforth Street to the area generally shown as a 20’ wide easement running to/from Danforth Street on an unrecorded plan entitled “Proposed Building and Building Renovation, 66 State Street, Portland, ME 04101, Site Plan” prepared for Developer’s Collaborative by Terradyn Consultants, LLC, dated July 16, 2018 (the “New Plan”), a copy of which is attached to this Agreement as **Exhibit A** and is incorporated herein by reference;

Whereas, the Parties wish to confirm the ownership and easement rights of each of the Parties, including but not limited to the following items:

(i) terminating a portion of the common elements of the Condominium, being a portion of the limited common element parking area for Unit 1 (the "Transfer Area");

(ii) conveying the Transfer Area to DC, subject to an easement for access and parking in favor of St. Dom's;

(iii) allowing DC to relocate and reconfigure the existing 24' wide access easement to the area shown as a 20' wide easement running to/from Danforth Street on the New Plan (the "Access Easement");

(iv) confirming that a separate existing easement in the vicinity of the southerly corner of Saint Dominic's Church, as set forth in a deed recorded in said Registry of Deeds in Book 10127, Page 81 (the "Existing MIHC Easement"), providing for (a) pedestrian access, (b) handicapped access, (c) supplies and materials access, and (d) repairs and maintenance supplies and equipment access to and from the MIHC Property continues in full force and effect and includes access for emergency vehicles, and such other vehicles from Danforth Street as reasonably necessary for the use and enjoyment of the Existing MIHC Easement;

(v) terminating the existing rights of DC to two (2) parking spaces shown as 21 Compact and 22 Compact on the New Plan, and releasing to MIHC any rights of DC and St. Dom's to said parking spaces; and

(vi) granting a new easement to MIHC for temporary access, laydown and staging areas for future construction on and over the parking and driveway areas along the southerly side of Unit 2 of the Condominium, including the right, at MIHC's election, to access the easement area from State Street. Such access shall not unreasonably interfere with operation of any of DC's buildings and shall, once exercised by written notice, last for no more than 24 months.

NOW, THEREFORE, for good and valuable consideration which the Parties hereby accept and acknowledge, the Parties hereby agree as follows:

1. The Parties will cooperate to terminate the Transfer Area as a common element of the Condominium, and to cause the Transfer Area to be conveyed to DC, subject to an easement in favor of St. Dom's for access and parking.

2. MIHC will consent to DC relocating and reconfiguring the 24' wide access easement from Danforth Street to the easement area as shown on the New Plan, with reasonable minor adjustments as may be required as a result of the planning process for the development of the DC Property; provided such adjustments preserve safe, no less convenient and usable access for passenger vehicle traffic as well as construction, emergency and other vehicles.

3. DC will confirm the uses set forth in the Existing MIHC Easement, that the Existing MIHC Easement runs to and from Danforth Street and that the relocated Access Easement will provide access for emergency vehicles per **Exhibit B** attached hereto and incorporated herein.

4. DC and St. Dom's will each release to MIHC any interest in two (2) parking spaces shown as 21 Compact and 22 Compact on the New Plan.

5. DC will grant easement rights to MIHC for temporary access, laydown and staging areas for future construction and maintenance activities on and over the parking and driveway areas along the southerly side of the Condominium, including, at MIHC's election, access

running from State Street. Such easement shall not interfere in a materially adverse manner with operation of any of DC's buildings, shall be as close as practicable to Unit 2 of the Condominium and shall, once exercised by written notice, last for no more than 24 months. If MIHC elects to use access from State Street, then in such instance MIHC will be responsible for obtaining all necessary approvals from the City of Portland needed to create a temporary driveway from State Street, and shall restore the DC Property at the conclusion of construction to substantially the same condition it was in before construction.

6. The Parties agree to negotiate in good faith and reasonably cooperate to reach agreement on the terms of any deeds, easements or other instruments necessary to facilitate the above-referenced transactions, including but not limited to requirements for each of the parties to maintain insurance in reasonable and customary amounts and to indemnify the other Parties for claims of injury or damages relating to use of the properties. All maintenance and repair shall generally be performed by and at the cost of the fee owner, except that the easement holder shall be responsible for any damage caused by any easement holder.

7. This Agreement shall become effective upon DC closing on a construction loan closing for development on the DC Property.

8. The Parties acknowledge that they each had an equal opportunity to control the language in this Agreement, and that this Agreement was mutually drafted. The Parties agree that in no event shall this Agreement be presumptively construed against any Party.

9. This Agreement may be executed in counterparts, in which case all such counterparts shall constitute one and the same Agreement. Furthermore, the executed signature pages may be transmitted by facsimile, with the original executed signature pages to be delivered by other means acceptable to the Parties. The Parties agree that this Agreement shall not be effective until it has been executed by all of the Parties. The recitals set forth above are an integral part of this Agreement.

10. Except as expressly amended or terminated herein, all of the easements described in the deed recorded in said Registry of Deeds in Book 10127, Page 81 remain in full force and effect.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed.

MAINE IRISH HERITAGE CENTER

Dated: _____

By: _____

Its: _____

Duly authorized

**ST. DOM'S HOUSING ASSOCIATES
LIMITED PARTNERSHIP**

BY: St. Dom's Family Housing, Inc, its
General Partner

Dated: _____

By: Kevin R. Bunker

Its: President

Duly authorized

DC 66 STATE LLC

Dated: _____

By: Kevin R. Bunker

Its: Manager

Duly authorized

3 STATE AND FEDERAL PERMITS

The development is subject to Site Plan and Subdivision approval by the City of Portland and Building Permit(s) are also required. No additional State or Federal Permits are required.

4 LAND ORDINANCE REVIEW

4.1 OVERVIEW

The property currently lies within the City of Portland R6 zone. The following Space and Bulk requirements apply to the R6 Zone:

R6 Zone Summary Dimensional and Parking Requirements Applied to 66 State Street		
Zoning Requirements	R6	Provided
Minimum Lot Size	2,000 sf	23,497 sf (Lot 44-H-1: 22,137 SF Acquisition: 1,359 SF)
Minimum Lot Area per Residential Dwelling Unit	725 sf	783 sf
Minimum Lot Area per Lodging House Rooming Unit	250 sf	618 sf
Minimum Street Frontage	20 ft	99 ft
Minimum Front Yard	5 ft or avg. depth of adjacent front yards	8 ft (existing)
Minimum Side Yard	5 ft, or none on a side street	3 ft (side street)
Minimum Rear Yard	10 ft	10 ft
Maximum lot coverage	60%	54%
Landscape Open Space	20%	12.6% *
Maximum Structure Height	45 ft	45 ft
Parking	27 residential spaces (1 space/unit *30 - 3 units) 8 lodging house spaces (1 space/5 rooms*38 rooms)	22 spaces ** (18 residential, 2 abutter, 2 lodging house)
Bicycle Parking	12 spaces	12 spaces

* A variance is being requested to allow the landscape open space area to be 12.6% of the project site.

** The residential and lodging house units are affordable housing so the provided ratio of 0.6 spaces/unit for the residence is expected to be sufficient. See parking Section 1.6 and 14.1 for supporting information.

4.2 SHORELAND ZONING

The site is not located within the Shoreland Zoning District.

5 EASEMENTS OR OTHER BURDENS

5.1 OVERVIEW

Owen Haskell, Inc. completed a boundary and topographic survey of the site in June of 2018. The following are existing easements or burdens associated with the site:

- A 10' conservation easement along the site's southwestern property boundary.
- A 24' wide access easement extending from Danforth Street along the existing parking lot drive aisle to the adjacent lot northwest of the project site.
- A parking easement benefitting the project site and located west of the site along the eastern side of St. Dominic's Condominium (44/H/4)
- A dumpster license allowing a dumpster for St Dominic's Condominium to be located on the project site, as shown on the survey.

The 10' conservation easement will be maintained and replanted as part of this project.

The 24' wide access easement will be relocated and modified as part of this project. Access to the adjacent lot northwest of the project site will be reconstructed during building construction but will remain as an access easement through the site's driveway and parking area. The width will be 20' wide from Danforth Street and narrow to 13.5' wide behind the proposed building.

The parking easement benefitting the project site will remain in place.

The dumpster license agreement with St Dominic's Condominium will be dissolved and the dumpster will be removed from the project site.

6 TECHNICAL AND FINANCIAL CAPACITY

6.1 TECHNICAL CAPACITY

The applicant has assembled a highly qualified team of professionals to plan, permit, and develop construction documents for the project. The Team is working under the direction of Developers Collaborative as Project Developers. The Team services will be provided by the following companies and their respective team leaders:

6.2 CONSULTANT TEAM

<i>Civil Engineer</i>	Michael Tadema-Wielandt, P.E. Terradyn Consultants, LLC 565 Congress Street Portland, ME 04101 (207) 632-9010 – Cell (207) 221-1317 – Fax mtw@terradyconsultants.com
<i>Surveyor</i>	John C. Schwanda Owen Haskell, Inc. 390 US Route 1, Unit 10 Falmouth, Maine 04105 (207) 774-0424 – Work (207) 774-0511 – Fax jschwanda@owenhaskell.com
<i>Architect</i>	David Lloyd Archetype, PA 48 Wharf Street Portland, ME 04101 (207) 772-6022 – Work (207) 772-4056 – Fax lloyd@archetypepa.com

6.3 EXPERIENCE OF PROJECT TEAM

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

The applicant, Developers Collaborative, has extensive experience in the development and management of residential projects of this scale. Developers Collaborative developed the nearby St Dominic's Housing as well as the Nathan Clifford Residences and Motherhouse in Portland. Additional information on the applicant's experience can be found at their website www.developerscollaborative.com.

6.4 FINANCIAL CAPACITY

The applicant has the capacity to finance the proposed project. A letter of financial capacity for the project is contained in Attachment 6-A.

6.5 CONSTRUCTION COST ESTIMATE

The project has an overall construction cost estimate of 7.8 million dollars. This construction cost value is considered preliminary and subject to change as building design and project layout is refined, etc.

6.6 ATTACHMENTS

Attachment 6-A – Letter of Financial Capacity

ATTACHMENT 6-A

Letter of Financial Capacity



March 18, 2019

City of Portland
389 Congress Street
Portland, ME 04101

RE: 66 State Street

To Whom It May Concern:

On behalf of the Bank of New Hampshire, I am pleased to provide this letter of support of DC 66 State LLC for the development of 66 State Street. The Bank of New Hampshire has worked with Kevin Bunker, Manager of DC 66 State LLC, and we believe the applicant has the ability to finance projected project costs. In addition, they possess the management skill and development expertise to successfully complete the proposed project on time and on budget.

While this letter of support is not a commitment to lend, the Bank of New Hampshire would welcome the opportunity to be a resource for project financing. Please feel free to call me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Charles A. Schwab", with a stylized flourish at the end.

Charles A. Schwab
Vice President
Bank of New Hampshire
(207) 577-6395

7 CONSTRUCTION MANAGEMENT PLAN

The following information is provided in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(1).

7.1 CONSTRUCTION MANAGEMENT PLAN

Developers Collaborative is seeking to commence construction of the 66 State Street project during the fall of 2019 and complete work by the summer of 2020. The construction will involve site work, new building construction, and interior renovations of the existing building on site. The attached construction plan outlines the anticipated timeline and sequence of activities.

7.2 ATTACHMENTS

Attachment 7-A – Construction Management Plan

ATTACHMENT 7-A

Construction Management Plan

CONSTRUCTION MANAGEMENT PLAN

Project:

66 State Street
Portland, Maine 04101

Applicant:

DC 66 State LLC
100 Commercial Street, Suite 141
Portland, Maine 04101

Prepared By:

Terradyn Consultants, LLC
565 Congress Street, Suite 201

Construction Manager:

To be determined

A. Construction Management Principles

The following narrative provides an overview of the construction management principles that the Applicant has identified to minimize impacts from the construction of 66 State Street, such as noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding buildings and communities.

B. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, the Applicant and Contractor shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General requirements and enforcement of Portland's Land Use Code.

Other permits, as applicable, include

- 1. Street Opening and Street Occupancy Permits:** Construction activity in the public right-of-way are controlled by Chapter 25 and sewer and stormwater system connections are controlled by Chapters 24 and 32 of the Land Use Code. All required permits shall be obtained through the Department of Public Works and the requests shall conform with the approved construction management plan.

C. Construction Administration and Communication

The Applicant and Contractor will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager 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.

A Construction Manager has not been selected for the project yet. Once selected, a Contact Person, who will be available 24 hours in the event of an emergency, will be identified and the City shall be notified:

CONTACT PERSON:

To be determined

Construction Signage shall be posted at the site with Contact Information for the Contractor. Construction site signage shall be removed at project completion.

D. Construction Schedule

1. The contractor shall submit a schedule or time line for the construction project, including any Phasing, prior to construction. The project is anticipated to start construction in October 2019.
2. Hours of Construction: Construction may occur during the daytime hours as defined in Section 17-18 of the City Code (Construction Activities) and Section 25-129 of the City Code (Noise, dust and debris).
3. Extended Hours or Night Work: Pursuant to Section 17-18, this section does not apply to emergency utility work or "Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority."
4. Material Deliveries: Delivery of materials shall take place during the Hours of Construction listed above and shall be stored on the project site in the locations noted on the Construction Management Plan (Sheet C-2.3).

E. Security & Public Safety

1. The Contractor shall erect the temporary barriers and access gates shown on the Construction Management Plan (Sheet C-2.3) with the intent of separating pedestrian and vehicle circulation from the construction site.
2. The Applicant or Contractor shall purchase and install a Knox padlock from the Portland Fire Department to allow access by the Portland Fire Department at the primary access gate.
3. 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.*

4. Fire Safety Program. An overall construction of 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
5. Any temporary security lighting fixtures shall feature full cutoff optics to reduce light trespass onto abutting properties.

F. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: Construction activity in the public right-of-way is controlled by Chapter 25 Article VII of the City Code of Ordinances. Required licenses and permits, restrictions on activity, and fees & area are outlined in that Chapter. Rules and Regulations for Excavation Activity are available through the Street Opening Clerk at the Department of Public Works. At no time can construction activity including delivery vehicles close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.
2. Lane Closures: Underground electric, sewer and water system connections within Danforth Street are expected to result in temporary closure of one lane of traffic in Danforth Street for up to four days. All work resulting in lane closures shall be scheduled and sequenced to minimize the duration of street occupancy.
3. Public Sidewalk Closures: The Danforth Street sidewalk along the project site's Danforth Street frontage will be partially reconstructed as part of the proposed project. This section of sidewalk will be closed while being reconstructed and for the duration of the proposed building construction. Temporary pedestrian signage will direct pedestrians to cross Danforth Street at existing crosswalks and use the sidewalk on the opposite side of Danforth Street, as shown on the Construction Management Plan. No other existing sidewalks are proposed to be impacted by the project.

4. 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 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.
5. Work within City Right of Way: 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.

Construction operations shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, the Contractor may be allowed to close a street and/or detour a mode of traffic when absolutely necessary for safety. The Contractor 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 are an obstruction to bicycles or pedestrians.
- In extreme situations, flaggers may be required.
- Police detail is required at lighted intersections and may be requested by the City's transportation engineer or his designee.

All existing modes of travel in 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 out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works.

- Traffic control 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 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.

G. Site Management and Controls

The contractor shall be responsible for maintaining the site in a safe condition and including the following:

1. A solid waste dumpster shall be located on site for the disposal of trash and debris.
2. The Danforth Street and State Street rights of way shall be swept regularly to control the tracking of mud onto adjacent public streets.
3. Dust controls: The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris.
4. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code and Section 25-129 on Noise, dust and debris.
5. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - 1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
 - 2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or site lines with the piles of snow.
 - 3) Clear all walks & ramps with the work zone
 - 4) Sand or Salt as needed
 - 5) Clear all basin or drainage to help snow melt
 - 6) This would include Monday-Friday Sat/Sunday/Holidays

H. Erosion Control and Preservation of Trees

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan 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 significant storm events, and maintain any installed temporary or permanent stormwater management systems in 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 or the U.S. Environmental Protection Agency upon request.
2. The storage of materials shall be located in the areas depicted on the Construction Management Plan (Sheet C-2.2).

I. Construction Staging and Deliveries

1. A location for material storage and lay down is shown on the Construction Management Plan. Additional areas may be utilized as available as long as they do not interfere with material deliveries.

J. Parking During Construction

1. Construction Parking: Construction workers shall utilize on-site parking as shown on the Construction Management Plan. Additional off-site off-street parking shall be utilized if necessary. Construction workers shall abide by all posted on-street parking restrictions.

8 NATURAL FEATURES

8.1 OVERVIEW

The development site has been entirely developed and does not contain any significant natural features including wetlands, vernal pools or other protected resources or wildlife habitats. However, there is a 10' wide conservation easement that must remain vegetated along the site's southwesterly property boundary that will be maintained and replanted as part of this project.

9 STORMWATER MANAGEMENT

The following information is provided in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-526(b)(3).

9.1 OVERVIEW

The existing project site is entirely developed and slopes from the western property boundary in an easterly direction towards Danforth Street. Stormwater runoff from the project site drains both overland across the eastern property boundary towards Danforth Street and through an existing storm drain network on-site that connects to the combined system in Danforth Street. Danforth Street generally drains easterly towards State Street and the existing city stormdrain system within both the Danforth and State Street right of ways.

Post development stormwater runoff will generally follow existing patterns. Stormwater runoff from a portion of the site will be collected in proposed catch basins that will tie into the existing on-site stormdrain system and drain to the city's system in Danforth Street as it does today. Runoff from the proposed building roof will be collected in a roof drain and discharged to the on-site stormdrain network. The existing building roof drain will remain.

The existing project site contains approximately 19,654 square feet of impervious surface. Redevelopment of the project site will result in an increase of approximately 882 square feet of impervious area and a total impervious surface of 20,536 square feet. Because the proposed building will be located where parking areas exist today, the proposed project will result in a decrease of non-roof impervious area. Therefore, the project is not required to meet the General or Flooding Standards, and does not meet the threshold for redevelopment standards.

The project is not expected to cause ponding, flooding, or erosion problems on or downstream of the site. The relatively small amount of runoff entering the city's storm drain network is not expected to overburden the system.

10 CONSISTENCY WITH CITY MASTER PLANS

10.1 OVERVIEW

Our office is not aware of any applicable Master Plans created for the project site.

11 UTILITIES

11.1 OVERVIEW

The proposed project will involve installation of new utility services to the proposed building. All new utility services will be provided from the franchise utilities available within Danforth Street. The proposed locations of the new utility services are shown on the Utility Plan (Sheet C-5.0).

11.2 WATER SUPPLY

The proposed project will receive its water supply from the Portland Water District's (PWD) public water supply system. Separate fire and domestic services will be installed to the building from PWD's existing main in Danforth Street. Terradyn Consultants received an ability to serve letter from PWD on April 2, 2019.

11.2.1 Total Project Water Usage

The total average daily water demand for the proposed residential building is estimated to be 3,600 gallons per day, based on design flows published in the State of Maine Subsurface Wastewater Disposal Rules.

16	x 1 Bedroom Residential Units at 120 gpd/unit	= 1,920 gpd
14	x Efficiency Residential Units at 120 gpd/unit	= 1,680 gpd
	Total	= 3,600 gpd

The total average daily water demand for the existing building after renovations is estimated to be 1,700 gallons per day, based on "boarding house with meals" design flows published in the State of Maine Subsurface Wastewater Disposal Rules.

$$180 \text{ gpd for a boarding house} + 40 \text{ gpd/boarder} * 38 \text{ lodging rooms} = 1,700 \text{ gpd}$$

11.3 WASTEWATER DISPOSAL

The proposed project will be connected to the Portland Water District's and City of Portland's wastewater collection and conveyance systems. The City of Portland Wastewater Capacity Application has been completed and uploaded to the City's electronic plan review system for review by Brad Roland of the City's Water Resources Department. A copy of the application is included in Attachment 11-B.

The 30-unit residential building is anticipated to generate an average daily flow of approximately 3,600 gpd, and the approximately 38 room lodging house building is anticipated to generate an average daily flow of 1,700 gpd. Based on the existing sewer system in the area, there appears to be adequate capacity to handle these projected flow amounts.

11.4 ELECTRICITY SUPPLY

CMP currently maintains overhead and underground utilities in the area. Electric utilities for the proposed building will be installed underground from Pole #19 on Danforth Street, to the southeast of the site. Electric utilities currently serving the existing building will remain.

11.5 ATTACHMENTS

Attachment 11-A – Portland Water District Ability to Serve Correspondence

Attachment 11-B – City of Portland Wastewater Capacity Application

ATTACHMENT 11-A

Portland Water District Ability to Serve Correspondence



April 2, 2019

Adrienne Fine, P.E.
Terradyn Consultants, LLC
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Re: 66 State Street, PO
Ability to Serve with PWD Water

Dear Ms. Fine:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on March 13, 2019. Based on the information provided, 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. 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 2-inch domestic service with a 1.5-inch meter may be installed from the water main in Danforth Street. The service should enter through the properties frontage on Danforth Street at least 10-feet from any side property lines. An approved backflow prevention device must be installed on the service line directly after the meter prior to service activation.
- A new 6-inch fire service may be installed from the water main in Danforth Street. The service should enter through the properties frontage on Danforth Street at least 10-feet from any side property lines. An approved backflow prevention device must be installed on the service line directly after the service enters the building prior to service activation.
- 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 make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.



Existing Site Service

According to District records, the project site does currently have existing water service. A 2-inch diameter copper domestic service line provides water service to the site. 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 8-inch diameter cast iron water main in Danforth Street and a public fire hydrant located approximately 100 feet from the site. The most recent static pressure reading was 56 psi on March 12, 2018.

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

ATTACHMENT 11-B

City of Portland Wastewater Capacity Application

June 6, 2019

Bradley Roland, P.E.
Wastewater Resources Division
Department of Public Services
55 Portland Street
Portland, ME 04101

66 State Street, Portland
Wastewater Capacity Application

Dear Brad:

Terradyn Consultants LLC has been retained by Developers Collaborative to assist with site design and permitting for a two-part project located at 66 State Street in Portland. The project includes the conversion of an existing 3-story building into 38 lodging house units with common bathing and kitchen facilities, and the construction of a 4-story residential building housing 30 affordable income-qualified residential units. We are writing to request confirmation that the City of Portland has the ability to provide sanitary sewer service for the proposed development.

The 23,497 square foot parcel is identified as Block H, Lot 1 on the City of Portland Tax Map 44. The site is located at 66 State Street at the corner of State and Danforth Streets. One existing building utilized as an office space, and paved parking areas exist on site.

The proposed project includes:

- The construction of a 5,449 square foot, 4-story building, including 30 affordable residential rental units. It is anticipated that a new 6" sewer service will be installed within Danforth Street to serve the proposed building.
- The renovation of the existing 7,303 square foot office building into 38 lodging house bedrooms with shared bathing and kitchen facilities. Existing sewer utilities servicing the existing 66 State Street building are expected to be utilized for the 38 lodging room use.

The proposed 30-unit building is expected to generate approximately 3,600 gallons of wastewater per day based on the Maine Subsurface Wastewater Disposal Rules. The 38 lodging house bedrooms in the existing building are expected to generate approximately 1,700 gallons of wastewater per day utilizing the design flows for a "boarding house with meals" (180 gpd + 40 gpd/boarder) from Table 4C of the Maine Subsurface Wastewater Disposal Rules.

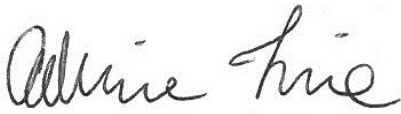
Attached are a site location figure showing the property delineated on a USGS map, preliminary site and utility plans of the project showing how the development may be served with sewer service, and a City of Portland Wastewater Capacity Application form for the proposed service to be installed within Danforth Street for the 30-unit residential building.

Please provide our office with confirmation that the City of Portland has the ability to provide sanitary sewer service to the proposed development and any comments you may have on the attached drawing.

Please contact me at (207) 322-1223 or adrienne@terradynconsultants.com if you have any questions or require additional information.

Sincerely,

TERRADYN CONSULTANTS LLC



Adrienne Fine, P.E.
Design Engineer

Enc. Wastewater Capacity Application Form
Site Location Figure
Preliminary Site Plan
Preliminary Utility Plan

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division

Date: 3/14/2019

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 66 State Street, Portland

Chart Block Lot Number: 44/H/1

Proposed Use: 30-unit residential

Previous Use: Parking lot

Existing Sanitary Flows: N/A GPD

Existing Process Flows: N/A GPD

Description and location of City sewer that is to
receive the proposed building sewer lateral.

Existing 24" sewer in Danforth Street

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: ?? Phone: _____

Owner/Developer Name: Developers Collaborative

Owner/Developer Address: 100 Commercial Street, Suite 414, Portland, ME 04101

Phone: _____ Fax: _____ E-mail: reading.laura@gmail.com

Engineering Consultant Name: Terradyn Consultants, LLC, Adrienne Fine, P.E.

Engineering Consultant Address: 565 Congress Street, Suite 201, Portland, ME 04101

Phone: 207-322-1223 Fax: _____ E-mail: adrienne@terradyconsultants.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: 3,600 GPD

Peaking Factor/ Peak Times: x6

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) State of Maine Subsurface Wastewater Disposal Rules

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.

16 x 1 Bedroom Residential Units at 120 gpd/unit	= 1,920 gpd
14 x Efficiency Residential Units at 120 gpd/unit	= 1,680 gpd
Total	= 3,600 gpd

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.



PROJECT SITE

SHEET DESCRIPTION
66 STATE STREET
U.S.G.S. QUADRANGLE MAP
PORTLAND WEST

PREPARED FOR
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME 04101



Civil Engineering - Land Planning - Stormwater Design - Environmental Permitting

565 Congress Street, Suite 310
Portland, ME 04101
41 Campus Drive, Suite 101
New Gloucester, ME 04260
Office: (207) 926-5111
Fax: (207) 221-1317
www.terradynconsultants.com

JOB NO.

1824

DATE

3/13/2019

SCALE

1"=2,000'

FIGURE

1

OF

2

12 SOLID WASTE

12.1 OVERVIEW

The project will generate solid waste both during construction and on an on-going basis after construction is complete. Estimates of solid waste generation, recycling rates, and procedures for the transport and disposal of solid waste that will be generated by the operation of the proposed development are provided below.

The following amount of solid waste associated with the construction and operation of the development have been estimated:

- 282 cubic yards of construction debris related to the new building construction activities (excluding volume of recycled materials).
- 1,020 pounds per week of solid waste will be generated by the operation of the development. Assuming that 50% of the waste is recycled, it is estimated that the project will generate 13.3 tons of recyclable waste and 13.3 tons of non-recyclable waste per year.

12.2 SOLID WASTE GENERATED DURING THE BUILDING CONSTRUCTION

Approximately 282 cubic yards of construction debris is expected to be generated during construction. Assuming that 80% of construction debris is recycled, construction of the project will generate approximately 56.4 c.y. of non-recyclable waste.

The waste stream will be transported and disposed of at the following locations:

Hazardous Materials:	WMI Crossroads Facility in Norridgewock, Maine
Mixed Construction Material:	Riverside Recycling Facility in Portland, Maine; WMI Crossroads Facility in Norridgewock, Maine or Juniper Ridge in Old Town, Maine (Contractor option)
Separated Wood Construction Debris:	KTI Biofuels in Lewiston, Maine
Separated Metal/Ferrous Material:	One Steel Recycling Inc. in Arundel or Oakland, Maine

The collection, transfer, disposal, and payment of all fees for solid wastes shall be the responsibility of the Contractor, with all waste transferred by a licensed non-hazardous waste transporter.

12.3 SOLID WASTE GENERATED FROM THE OPERATION OF THE DEVELOPMENT

Approximately 1,020 pounds of solid waste and recyclable material is expected to be generated every week by the residents of the project. The operational solid waste and recyclable material will be collected by a private waste hauler to be contracted by the developer.

12.4 ATTACHMENTS

Attachment 12-A – Computations of Types and Volumes of Solid Wastes for Construction Project

ATTACHMENT 12-A

Computations of Types of Volumes of Solid Wastes

ATTACHMENT 12-A

SOLID WASTES COMPUTATIONS AND DISPOSAL

A. NEW BUILDING CONSTRUCTION:

Basis of Estimate: 10 c.y./1,500 s.f. of finished space

Area: Approximately 42,300 square feet of finished space
(includes proposed building and existing building renovation)

Solid Waste: Approximately 282 c.y.

Other Wastes Associated with Other Site Construction: Cardboard from packaging etc.: Limited Quantity

Total: 282 c.y. before recycling

Net: 56.4 c.y. if 80% of the material is recycled

Disposition:

Assume 10 percent is concrete which can be sent to the approved aggregate recycling facilities operated by Shaw Bros. or R.J. Grondin and Sons for processing into recycled aggregate.

Assume 70 percent is wood or metal which can be transported to KTI Biofuels in Lewiston (for wood) or One Steel Recycling in Oakland, Maine for metals.

Approximately 56 cubic yards of mixed construction debris that will be hauled to the Riverside Recycling Facility in Portland, WMI Crossroads facility in Norridgewock, Maine or the Juniper Ridge Facility in Old Town, Maine.

The contractor should provide dumpsters designated by material type and identify recycling methods and disposal sites prior to construction. All haulers must have a current non-hazardous waste haul license.

B. OPERATIONAL SOLID WASTE:

RESIDENTIAL USE:

Basis of Estimate: 17 pounds/wk per individual. Estimate of 2 individual per unit.
From Table 14-1 of the CEQR Technical Manual from January 2014 Edition; Source: New York City Department of Sanitation.

Number of individuals: 30 units x 2 = 60 individuals

Solid Waste: Approximately 1020 pounds/week

13 FIRE SAFETY

13.1 OVERVIEW

The applicant and project team will provide the Portland Fire Department with the information required in the PFD Site Review Checklist, as well as a basic review of NFPA 1 and City of Portland Technical Standards related to public safety.

The project site will be accessed from Danforth Street and State Street, which both are improved with a 40' wide paved surface. An 8" cast iron water main owned by the Portland Water District currently exists in Danforth Street. There are two nearby fire hydrants; one is located at the corner of State and Danforth Streets, and the other is on Danforth Street at the corner of Winter Street.

Three sides of the proposed building will be fully accessible from Danforth Street and the proposed 20' wide driveway. Four sides of the existing building will be fully accessible from Danforth Street, State Street, and the on-site driveway and parking areas. The proposed and renovated building will be fully sprinkled in compliance with all applicable codes.

14 CONFORMITY WITH APPLICABLE DESIGN STANDARDS

14.1 OVERVIEW

This project conforms to all applicable Site Plan Standards of Section 14-526 of the city's Land Use Ordinance as described in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The project will not have a significant impact on the surrounding street system. Vehicles will access the site and parking areas from existing access points and the estimated number of new vehicle trips generated by the project is insignificant compared to existing trips on surrounding streets.

2. Access and Circulation:

a. Site Access and Circulation

(i) Vehicular access and circulation will closely follow existing patterns. Pedestrian access to the proposed building will be provided via the re-constructed existing sidewalk along Danforth Street. Pedestrian access to the existing building is along State Street. Door controlled access will be provided at each of the building entry locations.

(ii) The project will use existing points of vehicular access.

(iii) Drive up features are not proposed

b. Loading and Servicing

(i) Delivery or service vehicles are expected to be infrequent and may temporarily use on-street parking on Danforth Street or may also park in on-site surface parking areas.

c. Sidewalks.

(i) The existing sidewalk along the Danforth Street frontage will be reconstructed in the vicinity of the proposed building to relocate the driveway apron and improve the existing brick sidewalk. All sidewalk improvements shall conform to the City of Portland Technical Manual as shown on the project drawings. There are no proposed changes to the sidewalk on the State Street frontage.

(ii) The Danforth Street sidewalk and driveway apron will be constructed in accordance with City of Portland Technical Design Standards.

- (iii) There are no proposed on-site walkways. The primary building entrance is on the Danforth Street sidewalk. The second building entrance exits into the covered surface parking area. The existing building entrances are on the State Street sidewalk.

3. Public Transit Access:

Metro Bus Route 8 runs south on State Street and east on Danforth Street in the proximity of the project site. The nearest bus stop to the project is at the intersection of Danforth and State Streets, approximately 140' east of the site. The project does not meet the minimum threshold to require a new transit facility.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The project requires a total of 35 parking spaces calculated below:
Residential = 1 space/unit * 30-units – first 3 exempt = 27 spaces
Lodging House = 1 space/every 5 units * 38 rooms = 8 spaces

The proposed project includes 22 parking spaces. Two of these spaces are for the lodging house use and two are for the abutting Irish Heritage Center, so 18 spaces are provided for the residential building. This is a ratio of 0.6 spaces/unit for the residential building. This ratio is expected to be sufficient due to the affordable housing nature of the residential units, as well as the fact that many of the units are small efficiencies and the remainder are one-bedroom units. The ratio of 0.6 is consistent with other reduced parking ratios at properties owned by the Applicant, including the Motherhouse at 605 Stevens Avenue. The applicant's professional management experience indicates fewer parking spaces per unit when the units are small works from a marketing and management perspective.

- (ii) A parking study is not required for this project.

- (iii) Not Applicable.

- (iv) The proposed parking spaces and drive aisles will meet required dimensional standards. Typical dimensions are as follows:

- Beneath the building: 9' by 18'
- In existing parking lot: 8' by 18'
- Two compact spaces: 8' by 16'
- ADA #1: 9' by 18' with 7' aisle
- ADA #18: 8' by 18' with 7' aisle plus flush concrete walkway
- Drive Aisle: 20' wide, typ.

- (v) The proposed on-site parking lot will be constructed of bituminous pavement.

b. Location and Required Number of Bicycle Parking Spaces:

- (i) The project requires 2 bicycle parking spaces for every 5 dwelling units, or 12 spaces. Bicycle parking spaces will be provided at 6 bike hitches (2 spaces each) located in the sidewalks along the Danforth and State Street frontages.

c. Motorcycles and Scooter Parking:

- (i) Dedicated motorcycle/scooter parking is not provided.

d. Snow Storage:

- (i) Snow storage will be provided on the proposed lawn areas adjacent to the parking lot.
- (ii) Snow will not be stored in parking areas, and no bio-retention is proposed.

5. Transportation Demand Management (TDM):

- a. A TDM plan is not required for this project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. The development site has been entirely developed and does not contain any significant natural features including wetlands, vernal pools or other protected resources or wildlife habitats. There is a 10' wide conservation easement that must remain vegetated along the site's southwesterly property boundary that will be maintained and replanted as part of this project.

b. Not applicable

c. Not applicable

2. Landscaping and Landscaping Preservation:

a. Landscape Preservation.

- (i) One street tree is located along the site's Danforth Street frontage and will be removed during building and utility construction. Two trees are

located on-site within landscaped islands that will be removed. An existing stand of trees is located within the 10' wide conservation easement between the subject property and the abutting N/F Tempo Dulu LLC lot that will be preserved and/or replanted as necessary. Vegetative plantings of an appropriate size will replace these trees as needed. New plantings will be provided as shown on the Landscape Plan.

- (ii) The existing trees within the 10' setback will be preserved and/or replaced if deemed unsalvageable.
- (iii) Existing plantings between the on-site parking lot and State Street sidewalk will be protected or replanted.
- (iv) Waiver: The existing trees on site will be impacted by building and site construction and preservation of these existing trees would compromise the development of the site. These trees will be replaced with appropriate plantings at a scale that is appropriate to the site, as specified by the landscape architect. Replacement plantings are proposed within the new landscaped islands and the 10' wide conservation easement on-site.
- (v) The project is not in the Shoreland Zone

b. Site Landscaping.

(i) Landscaped Buffers:

- (a) Landscaping is proposed to remain and/or be improved between the on-site parking lot and the State Street sidewalk.
- (b) Plantings are proposed in the front, side, and rear zoning setback areas, as specified on the Landscape Plan. The 10' conservation easement / rear setback area will be maintained with vegetation.
- (c) Not applicable.
- (d) Vegetated buffers between the proposed building and surrounding residential development is specified on the Landscape Plan.

(ii) Parking Lot Landscaping:

- (a) Landscape islands are proposed within the parking lot and plantings are proposed as specified on the Landscape Plan.
- (b) Landscape islands are provided in the parking lot.

(c) Proposed landscaped islands are depicted on the site and landscape plans. The large landscaped islands are at least 8' wide. Smaller landscaped areas are proposed to be grassed.

(d) Not applicable.

(e) Not applicable.

(iii) Street Trees

(a) The existing street tree along the Danforth Street frontage will be removed during building construction and utility installation. Three existing street trees along the State Street frontage will remain. The proposed project is 30 units, so 30 street trees are required per the Technical Manual. Three (3) of these trees will be satisfied by protecting the existing street trees.

(b) The applicant will satisfy the requirement for the remaining 27 street trees by paying into the City of Portland's Tree Fund for these remaining trees.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

The existing project site contains approximately 19,654 square feet of impervious surface. Redevelopment of the project site will result in an increase of approximately 882 square feet of impervious area and a total impervious surface of 20,536 square feet. Therefore, the project is not required to meet the General or Flooding Standards. The proposed building will be located where paved parking exists today, therefore the project will result in a decrease of non-roof impervious area, so the project does not meet the threshold for redevelopment standards.

Post development stormwater runoff will generally follow existing patterns. Runoff from portions of the site and the proposed building roof will enter the existing on-site stormdrain system and drain to the city's system in Danforth Street as it does today. The existing building roof drain will remain. Stormwater runoff from other portions of the site will run overland towards Danforth and State Streets as it does today.

(i) The project will not result in flooding of adjacent lots.

(ii) Runoff volumes and rates will not increase onto adjacent lots.

- (iii) Volumes and rates of stormwater runoff into the Danforth Street right of way are expected to decrease. The project will not create ponding, flooding, or other drainage problems within Danforth Street.
- (iv) Volumes and rates of stormwater runoff into the city's storm drain network are expected to be similar to existing volumes and rates. The project will not create problems downstream or exceed the capacity of the system.
- b. The project will result in a minor increase in impervious surface and is not required to meet the General or Flooding Standards.
- c. Not Applicable. The project is not located in a watershed of an urban impaired stream.
- d. Not applicable.
- e. The project will be served by both a public wastewater system and public drainage system. The project will not pose a risk of groundwater contamination.
- f. Wastewater will flow to the public sewer system, which is adequately sized for the project flows.

(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 of Portland Land Use Ordinance and off-premises infrastructure.
- b. Not applicable.

2. Public Safety and Fire Prevention:

- a. The site has been designed to promote safety and security for residents and their guests. Access to the residential lobby will utilize keyed entry. Site lighting will provide added security.
- b. Emergency vehicle access will be via Danforth Street and State Street. The driveway entering the site from Danforth street will be 20' wide.
- c. Two existing fire hydrants are located along Danforth Street in the vicinity of the project. One hydrant is located at the corner of State and Danforth Streets

and the other is located at the corner of Danforth and Winter Streets. Both buildings will also feature sprinklers for fire suppression.

3. Availability and Adequate Capacity of Public Utilities:

- a. The project will be served by new water and sewer utilities. An ability to serve letter was received from the Portland Water District, and a Wastewater Capacity Application has been uploaded to eplan for review by Brad Roland at the City of Portland.
- b. Overhead electrical and telecommunications utilities exist along Danforth and State Streets. The proposed building will be served by underground utilities from Pole #19 located southeast of the site on Danforth Street. The existing overhead utilities serving the existing building from Danforth Street will remain.
- c. All new utility infrastructure will meet the provisions of the Technical Manual.
- d. The proposed building will be connected to the public sewer system within Danforth Street. The existing building sewer connection will remain.
- e. The sanitary sewer and stormwater collection systems were designed to comply with City standards.
- f. A solid waste storage area will be provided in both the proposed and existing building on the first floor.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

- a. The bulk, location and height of the proposed building will not result in adverse impacts to abutting properties.
- b. The bulk, location and height of the proposed building will not substantially reduce the value or utility of adjacent structures.
- c. An ERV fan will be located on the roof.

2. Shadows:

- a. The project is not expected to cause shadows on publically available open space, or have an adverse effect on vegetation as a result of shadows cast from the proposed building.

3. Snow and Ice Loading:

- a. The proposed building will have a flat roof. Accumulated snow and ice will not fall onto adjacent properties or public ways.

4. View Corridors:

- a. The project site is located outside of any protected view corridors.

5. Historic Resources:

- a. The development is located within a designated historic district and review is under way with the City of Portland Historic Preservation.
- b. The proposed building is designed to be generally compatible with the major character-defining elements of the historic district in the immediate vicinity of the proposed development.
- c. There are no known archaeological resources on the site.

6. Exterior Lighting:

a. Site Lighting

- (i) Exterior site lighting will be provided by building mounted lights along sidewalks and in parking areas. All fixtures will feature full cut-off optics to prevent unintended light pollution. Proposed lighting is shown on the Lighting Photometric Plan (Sheet P-1).

b. Architectural and Specialty Lighting:

- (i) No architectural or specialty lighting is proposed.
- (ii) No up-lighting is proposed.

c. Street Lighting

- (i) No street lighting is proposed. Existing street lights existing along State and Danforth Streets.

7. Noise and Vibration:

Noise levels are expected to meet the permitted levels for the R6 Zone.

a. HVAC and Mechanical Equipment

- (i) The proposed and existing building utilize geothermal equipment that is located inside the existing building. An ERV fan will be located on the roof of the proposed building and will not be visible from State or Danforth Streets, or adjacent sites.

- (ii) No emergency generator is proposed for this project.

8. Signage and Wayfinding:

- a. All signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

- (i) The project is not subject to a Certificate of Appropriateness.
- (ii) Not applicable. No commercial or directional traffic signage is proposed as part of the project.
- (iii) Not applicable. No on-site directional traffic signage is proposed as part of the project.
- (iv) Not applicable. No waiver is required.

9. Zoning Related Design Standards:

- a. The project is located within a historic zone and review is under way with the City of Portland Historic Preservation.

- (i) The project is designed to support the development of dense, mixed-use neighborhoods with attractive, safe and convenient street level pedestrian environments.
- (ii) Not applicable.
- (iii) Not applicable.
- (iv) Not applicable.
- (v) The residential development 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.

- b. Not Applicable.

15 VERIFICATION OF PROPOSED HVAC EQUIPMENT

15.1 OVERVIEW

The proposed and existing building utilize geothermal equipment that is located inside the existing building. An ERV fan will be located on the roof of the proposed building and will not be visible from State or Danforth Streets, or adjacent sites.

66 State Street Neighborhood Meeting Certification

I, Laura Reading, on behalf of DC 66 State LLC, hereby certify that a neighborhood meeting was held on July 16, 2019, at the Maine Irish Heritage Center at 34 Gray Street in Portland at 6:00 PM for the proposed project located at 66 State Street in Portland.

I also certify that on July 3, 2019, 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.

Signed,



Laura Reading
July 18, 2019

Attached to this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

DC 66 State LLC
100 Commercial Street, Suite 414
Portland, ME 04101

July 3, 2019

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a proposed housing development at 66 State Street.

Meeting Location: Maine Irish Heritage Center, Lower Level Function Room
34 Gray Street, Portland, ME
Meeting Date: July 16, 2019
Meeting Time: 6:00 PM

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. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please call 207-772-7673.

Signed,



Laura Reading
July 3, 2019

Note:

Under Section 14-21(C) and 14-524(a)d 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 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: bab@portlandmaine.gov

66 State Street Neighborhood Meeting Sign-In Sheet

July 16, 2019

Maine Irish Heritage Center, 34 Gray Street, Portland

Developer and Consultant Team in Attendance:

NAME

EMAIL

Laura Reading	reading.lauraj@gmail.com
Josh Trombley	josh@dcmaine.com

Members of the Public in Attendance:

NAME

EMAIL

CURT SACHS	SACHSARCH@gmail.com
MAUREEN COYNE NORRIS	MENORRISON@gmail.com
BR Hanan 164 Da. fort	
Deb Gellerson	shewee@aol.com
Tanice Munday	c8412@yahoo.com
BILLY - BEV HANAN	bhanan@maine.legal.net
David & Katherine Searles	
Suzanne Hunt	Shunt.doherty@gwi.net
Amy Osborn	Park Raw Green + 1 Stratton
Lori A. Maxwell	75 State Street
Victoria A. DYLEWSKI	DYLEWSKIVA@gwi.net
Lynn LaRoche	75 State St
PETER + NANCY MILLS	99 STATE ST.
	PMILLS@MAINELEGAL.NET
Steve Morrison	158 Dea fort St
Gwynne Williams	gwynne88@yahoo.com
Liz & Kim Parsons	44 Winter St

Maine Irish Heritage Center, 34 Gray Street, Portland

Members of the Public in Attendance:

NAME

EMAIL

[illegible]

66 State Street Neighborhood Meeting Minutes

Location: Maine Irish Heritage Center, 34 Gray Street, Portland

Time: 6:00 PM

Laura Reading gave an overview of the project and status of approval process, and asked for questions/comments from the public:

- Will same management services for St. Dom's manage new construction? Yes.
- I thought Amistad was moving on? You said they needed parking. (New program will be Amistad too)
- What will tenant demographic be? – 60% AMI, Income limit is 39,000
- Will parking be assigned specifically for users of the new building – Yes.
- What are the supportive services that will be provided? Meredith from Amistad: Safe space for women in recovery including 24 hour staffing, connection to work programs, supportive meetings. Some services are already being provided around Portland.
- If Amistad does not want to be part of the development, what goes in 66 State? – Preference is to work with Amistad, but without them, it's back to the drawing board.
- How are you getting so much density on such a small lot? – Current zoning allows the number of units we are proposing.
- How much of this project is dependent on what happens at Riverside? – They are two separate situations.
- Echoed concern about density on 22,000 sq ft. Will there be community rooms? Will it be non-smoking? Yes, there will be community rooms.
- One woman would be against limited outdoor space.
- Rep from Irish Heritage Center is starkly against converted use. Concerns that events here will be stifled, and IHC will not be funded. Concerned about trash and people in the dumpster. Concerned about unwed mothers hanging around on the streets.
- Direct neighbor is in support of the project because she cares about people, and supporting those in need.
- Do residents of new project have more accountability than the current client base? – Yes, there is 24 hour accountability and structure.
- Former architect – Does not think \$750 is affordable for target clients. Has criticisms of plans shown at presentation. Thinks façade will only last 8 year +/- . Doesn't trust developers. – Answer: It's a great opportunity to use a historic building to help people in need.
- Other than geothermal, what other steps are you taking to be green? – New building will meet Portland's green building code.
- What stage is Amistad in with making decision to work with DC? – Very early, but still deciding what services to offer and how can they be helpful.
- Concerned with density in regards to needles and trash etc. Will Amistad be on site 24/7? – Yes. Amistad makes residents sign "good neighbor agreement" and will enforce and evict.
- Do women who live at these places have pride of ownership and keep them neater? Yes, they are responsible for housekeeping, gardening, etc.
- It sounds like Amistad and Developer are on two different tracks? DC is moving much faster than Amistad. Would hate to see project fall apart because of an "administrative mismatch".

- Why rooming house vs standard apts? – Rooming provides a low barrier to entry to stable housing and can provide good community spaces with supportive services.
- Did you choose SRO to make more money? – Construction costs are lower to build fewer kitchens and bathrooms but that helps make the project affordable. Final floor plans regarding actual number of baths, kitchens are still being hashed out.
- How is Amistad funded currently? State contract.
- Funding for Amistad is a big part of the question in making a final decision.
- Former architect: Florence House and other examples have worked without issue.
- How does the city planning board make a decision on a project that is not completely ironed out? We would still want to move forward with apartments regardless of Amistad.
- Who would manage new construction building? DC Management.
- How did you choose 30 units? Allowed per current zoning. Economies of scale help affordability.
- How did you determine parking? We tried to maximize parking to the greatest extent.
- More concerns about sustainability of IHC
- Are we working with MSHA or PHA? – Amistad is having conversations with both for project-based vouchers. May also have access to funding reserved for opioid epidemic.
- Neighbor likes the idea and supports the social need, but wants the building located somewhere else. Need to take a comprehensive look at the neighborhood.
- Is the goal to diversify the neighborhood to dilute the epicenter of Preble Street?
- Could you add a roof deck for outdoor space? Roof deck does not account as green space area, and parks service may not allow it.
- What are the priorities on one building vs. the other in terms of construction? Existing building would be easier to get moving first. New construction depends on MSHA financing so at the earliest would start construction in late winter/early spring.
- Please consider what happens to the neighborhood if IHC fails.

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Submit each Tab as one PDF file and bookmark the items as noted below

Please confirm by electronically checking the boxes to the left

Tab 1 – General Application Documents

Checklist	Items to be Provided
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	COMPLETED CHECKLIST – LEVEL III APPLICATION
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS , if applicable Permits or letters of non-jurisdiction, if applicable
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS , if applicable Evidence of existing easements and any proposed easements
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	WAIVER REQUESTS Written request for waiver describing request and reason. Waiver Table
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒ NA ☐ Plan ☐ ☒ ☐ ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Submit each Tab as one PDF file and bookmark the items as noted below

Tab 2 - TRANSPORTATION

Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes NA Plan ☒ ☐ ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes NA Plan ☒ ☐ ☐	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes NA Plan ☒ ☐ ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes NA Plan ☒ ☐ ☐	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes NA Plan ☒ ☐ ☐	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes NA Plan ☒ ☐ ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes NA Plan ☒ ☐ ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes NA Plan ☐ ☒ ☐	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

Tab 3 - ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - 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 consultants, determinations from applicable state agencies
Yes	NA	Plan	Landscaping and Landscape Preservation (14-526 (b) 2 a) - Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) - Protection measures of existing vegetation during construction - Protection measures within Shoreland Zone, if applicable
Yes	NA	Plan	Site Landscaping (14-526 (b) 2 b) - Screening and buffering of service areas and between non-residential and residential uses - Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes	NA	Plan	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
Yes	NA	Plan	Street Trees (14-526 (b) 2 b iii) - Existing Heritage or Feature Trees on site and measures to preserve - Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
Tab 4 - ENVIRONMENTAL AND STORMWATER			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection

Tab 5 - PUBLIC INFRASTRUCTURE AND SAFETY	
Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Consistency with City Master Plans (14-526 (c) 1) - Identify consistency with master plans - Proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes NA Plan ☒ ☐ ☐	Public Safety and Fire Prevention (14-526 (c)) - Address Crime Prevention through Environmental Design (CPTED) (Technical Manual, Section 3) - Emergency vehicle access - Address consistency with public safety standards (Technical Manual, Section 3) - Submit a code summary referring NFPA 1 and all Fire Department standards (Technical Manual, Section 3) – Fire Checklist
Yes NA Plan ☒ ☐ ☐	Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 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 - Proposed solid waste management facilities on-site and management for the site - Written evidence of the ability to serve from utility companies, as applicable
Tab 6 - SITE DESIGN	
Check list	Assess/Provide/Document:
Yes NA Plan ☒ ☐ ☐	Massing, Ventilations and Wind Impact (14-526 (d) 1) - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable - Bulk, location or height impacts on adjoining structures - Identify and locate HVAC equipment and venting away from public spaces and residential properties - Identify screening and manufacturing specifications for noise, if applicable
Yes NA Plan ☒ ☐ ☐	Shadows (14-526 (d) 2), if applicable Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes NA Plan ☒ ☐ ☐	Snow and Ice Loading (14-526 (d) 3) Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes NA Plan ☒ ☐ ☐	View Corridors (14-526 (d) 4), if applicable Protection of designated view corridors (Portland Design Manual, Appendix 1)

Yes NA Plan ☒ ☐ ☐	Historic Resources (14-526 (d) 5), 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
Yes NA Plan ☒ ☐ ☒	Exterior Lighting (14-526 (d) 6) - 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)
Yes NA Plan ☒ ☐ ☐	Noise and Vibration (14-526 (d) 7) Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements
Yes NA Plan ☐ ☒ ☐	Signage and Wayfinding (14-526 (d) 8), if applicable - Signage plan showing the location, dimensions, height and setback of all existing and proposed signs. Signs in Historic Districts are reviewed by Historic Preservation staff - Proposed commercial and directional signage on site
Yes NA Plan ☒ ☐ ☐	Zone Related Design Standards (14-526 (d) 5) - Address Historic Preservation Design Review, if applicable - Address any applicable design review standards by zone - Address submission requirements from Design Manual, page 1, addressing neighborhood context - Description of exterior materials, color, finish, and samples
Tab 7 - Construction Management Plan	
Check list	
Yes NA Plan ☒ ☐ ☐	Construction Management Plan Construction Management Document and Plan

Level II and Level III Site Plan Checklist Please upload the following drawings with the listed details into e-Plan	
☒	RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)
Must be in compliance with Technical Manual, Section 13	
☒	SITE PLAN(s) (stamped by Maine Licensed Engineer) including:
☒	Existing Conditions • Approximate location of structures on abutting property • Topography • Locate water courses • Delineate wetlands • Zone lines
☒	Proposed Site Plan • Ground floor area, and grade elevations for all buildings
☒	Access, Circulation, and Parking • Streets and intersections adjacent to site , any proposed geometric modifications • Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines • Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas • Location and dimensions of proposed loading areas • Existing and proposed transit infrastructure with dimensions/ engineering specifications • Location of vehicle and bicycle parking with dimensions and engineering specifications
☒	Site Considerations • Identify snow storage areas • Location of fire hydrants • Location of solid waste management facilities
☒	UTILITY PLAN including:
	• Existing utilities on site and within public streets • Location, sizing, and directional flows of all existing and proposed utilities • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure

☒	GRADING and DRAINAGE PLAN including:
	- Existing grades and drainage - Proposed grades - Proposed stormwater management meeting Technical Manual (Section 5) standards - Location and proposed alteration of a water course - Preservation or alteration of wetlands
☒	EROSION CONTROL
	Must be in compliance with Technical Manual, Section 5
☒	LANDSCAPE PLAN including:
	- Existing vegetation to be preserved and preservation measures - Proposed landscaping and buffers - Planting schedule
☐	RECORDING PLAT , if applicable
	IF SUBDIVISION: Must be in compliance with requirements of Section 14-496 (b)
☒	ARCHITECTURAL PLANS & RENDERINGS including:
	- Exterior building elevations, color renderings, illustrations of all sides - Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening - Provide context drawings, if applicable (Design Manual, page 1) - Floor plans



June 6, 2019

Bradley Roland, P.E.
Wastewater Resources Division
Department of Public Services
55 Portland Street
Portland, ME 04101

66 State Street, Portland
Wastewater Capacity Application

Dear Brad:

Terradyn Consultants LLC has been retained by Developers Collaborative to assist with site design and permitting for a two-part project located at 66 State Street in Portland. The project includes the conversion of an existing 3-story building into 38 lodging house units with common bathing and kitchen facilities, and the construction of a 4-story residential building housing 30 affordable income-qualified residential units. We are writing to request confirmation that the City of Portland has the ability to provide sanitary sewer service for the proposed development.

The 23,497 square foot parcel is identified as Block H, Lot 1 on the City of Portland Tax Map 44. The site is located at 66 State Street at the corner of State and Danforth Streets. One existing building utilized as an office space, and paved parking areas exist on site.

The proposed project includes:

- The construction of a 5,449 square foot, 4-story building, including 30 affordable residential rental units. It is anticipated that a new 6" sewer service will be installed within Danforth Street to serve the proposed building.
- The renovation of the existing 7,303 square foot office building into 38 lodging house bedrooms with shared bathing and kitchen facilities. Existing sewer utilities servicing the existing 66 State Street building are expected to be utilized for the 38 lodging room use.

The proposed 30-unit building is expected to generate approximately 3,600 gallons of wastewater per day based on the Maine Subsurface Wastewater Disposal Rules. The 38 lodging house bedrooms in the existing building are expected to generate approximately 1,700 gallons of wastewater per day utilizing the design flows for a "boarding house with meals" (180 gpd + 40 gpd/boarder) from Table 4C of the Maine Subsurface Wastewater Disposal Rules.

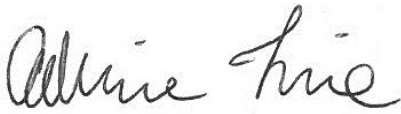
Attached are a site location figure showing the property delineated on a USGS map, preliminary site and utility plans of the project showing how the development may be served with sewer service, and a City of Portland Wastewater Capacity Application form for the proposed service to be installed within Danforth Street for the 30-unit residential building.

Please provide our office with confirmation that the City of Portland has the ability to provide sanitary sewer service to the proposed development and any comments you may have on the attached drawing.

Please contact me at (207) 322-1223 or adrienne@terradynconsultants.com if you have any questions or require additional information.

Sincerely,

TERRADYN CONSULTANTS LLC



Adrienne Fine, P.E.
Design Engineer

Enc. Wastewater Capacity Application Form
Site Location Figure
Preliminary Site Plan
Preliminary Utility Plan

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division

Date: 3/14/2019

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 66 State Street, Portland

Chart Block Lot Number: 44/H/1

Proposed Use: 30-unit residential

Previous Use: Parking lot

Existing Sanitary Flows: N/A GPD

Existing Process Flows: N/A GPD

Description and location of City sewer that is to
receive the proposed building sewer lateral.

Existing 24" sewer in Danforth Street

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: ?? Phone: _____

Owner/Developer Name: Developers Collaborative

Owner/Developer Address: 100 Commercial Street, Suite 414, Portland, ME 04101

Phone: _____ Fax: _____ E-mail: reading.laura@gmail.com

Engineering Consultant Name: Terradyn Consultants, LLC, Adrienne Fine, P.E.

Engineering Consultant Address: 565 Congress Street, Suite 201, Portland, ME 04101

Phone: 207-322-1223 Fax: _____ E-mail: adrienne@terradyconsultants.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: 3,600 GPD

Peaking Factor/ Peak Times: x6

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) State of Maine Subsurface Wastewater Disposal Rules

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.

16 x 1 Bedroom Residential Units at 120 gpd/unit	= 1,920 gpd
14 x Efficiency Residential Units at 120 gpd/unit	= 1,680 gpd
Total	= 3,600 gpd

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.



PROJECT SITE

SHEET DESCRIPTION
66 STATE STREET
U.S.G.S. QUADRANGLE MAP
PORTLAND WEST

PREPARED FOR
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME 04101



Civil Engineering - Land Planning - Stormwater Design - Environmental Permitting

565 Congress Street, Suite 310
Portland, ME 04101
41 Campus Drive, Suite 101
New Gloucester, ME 04260
Office: (207) 926-5111
Fax: (207) 221-1317
www.terradynconsultants.com

JOB NO.

1824

DATE

3/13/2019

SCALE

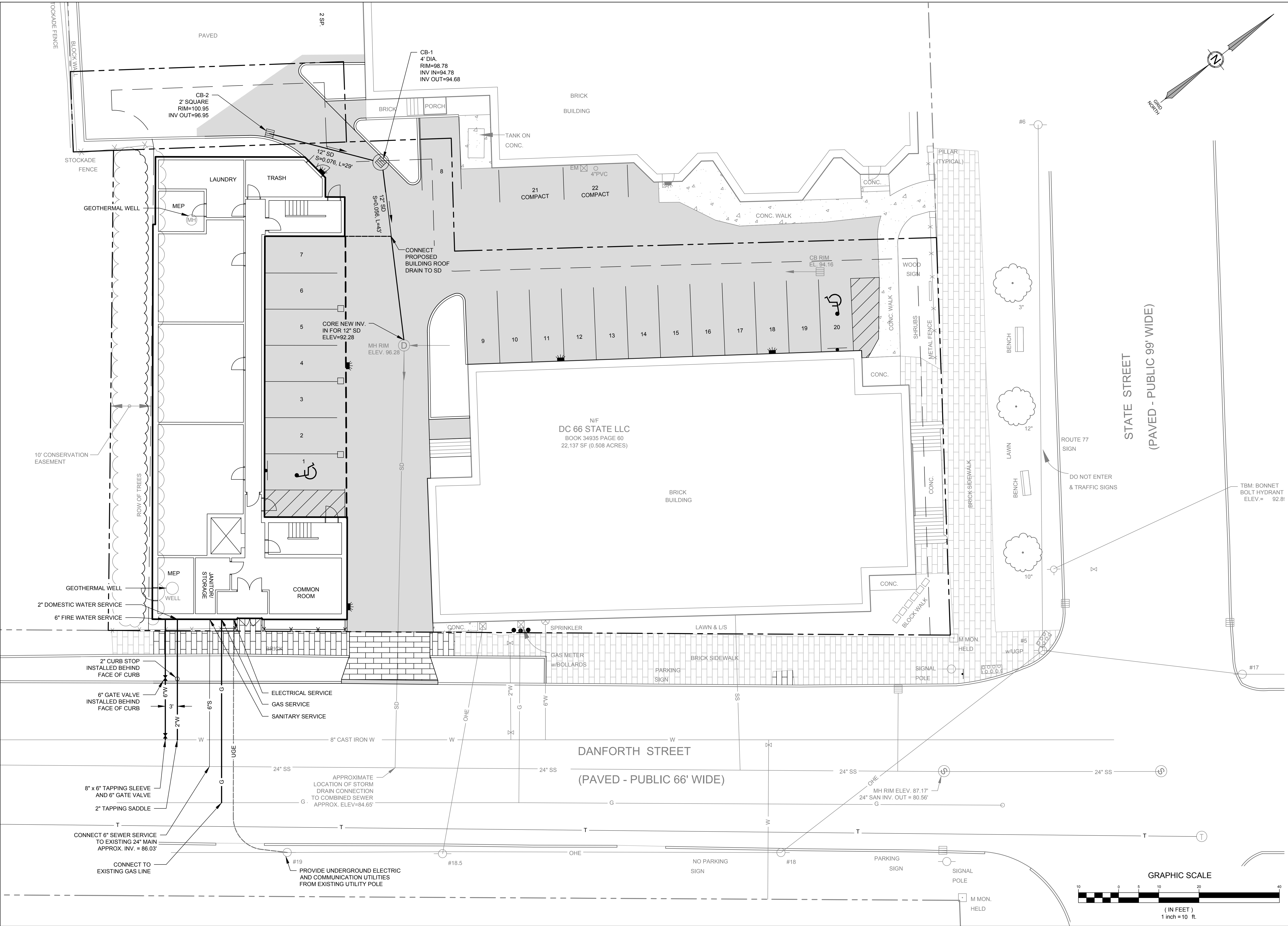
1"=2,000'

FIGURE

1

OF

2



STATE OF MAINE

MICHAEL E. TADEMA-WELANDT

REGISTERED PROFESSIONAL ENGINEER

DATE: 6-5-19

P.E.: MICHAEL E. TADEMA-WELANDT

APPROVED BY

REVISIONS

DATE

NO.

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PROJECT:
PROPOSED BUILDING AND BUILDING RENOVATION
66 STATE STREET
PORTLAND, ME 04101

SHEET TITLE:
UTILITY PLAN

CLIENT:
DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE: 6/3/2019

SCALE: 1"=10'

DESIGNED: ARF

JOB NO: 1824

FILE: 1824-B.DWG

SHEET C-5.0

GEOPAK SERIES SIZE 2 LED

Architectural Wallpack
TRP2/RD12/QSP2

NEW

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Applications:

Medium sized architectural wallpacks in three stylish shapes accentuate building architecture and provide excellent illumination and uniformity

Construction:

- Die-cast aluminum housing and door
- Seven powder coat standard finishes, plus custom color options

LED:

- 24 or 32 high power LEDs deliver up to 10,800 lumens
- Up to 146 Lumens per watt
- Different lenses offer a variety of distribution patterns - Type I, II, III and IV (Forward throw)
- 3000K - 70 CRI, 4000K - 70 CRI and 5000K - 70 CRI, CCT nominal

Electrical:

- Optional Dual Drivers & Dual Power Feeds for 50, 70 and 90 watt versions
- 120-277, 347 and 480 voltage, 50/60Hz
- Power factor $\geq 90\%$
- THD (Total Harmonic Distortion) $<20\%$
- Ambient operating temperature -40°C to 40°C
- 20kA surge protection (series); Automatically takes fixture off-line when device is consumed

Installation/Mounting:

- Quick-mount adapter with gasket seal provides easy installation to wall or to recessed junction box (4" square junction box). Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Black box accessory available for surface conduit application
- Optional inverted/up mounting (must specify when ordering)

Options/Controls:

- Drivers are 0-10V dimming standard
- Universal button photocontrol for dusk to

dawn energy savings

- Photocell and occupancy sensor options available for complete on/off and dimming control
- Occupancy sensor options available for complete on/off and dimming control
- In addition, GeoPak Size 2 can be specified with 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/sitesync for more details

Listings:

- IP65 rated housing
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Zero uplight (U0), dark sky, neighbor friendly
- Drivers IP66 and RoHS compliant

Battery Backup:

- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress.
- Includes a long-life Lithium Iron Phosphate battery with optional battery heater for cold temperature application.
- Utilizes 4 LEDs in emergency mode with 657 lumens. Each of the 4 LEDs in emergency are designed to function independently in the unlikely event of a single LED malfunction
- Spectron® self-testing/self-diagnostic electronics are included standard
- Independent dedicated driver and LED array for battery/emergency mode operation.

Warranty:

For more information visit:
<http://www.hubbelloutdoor.com/resources/warranty/>

PRODUCT IMAGE(S)



Trapezoid

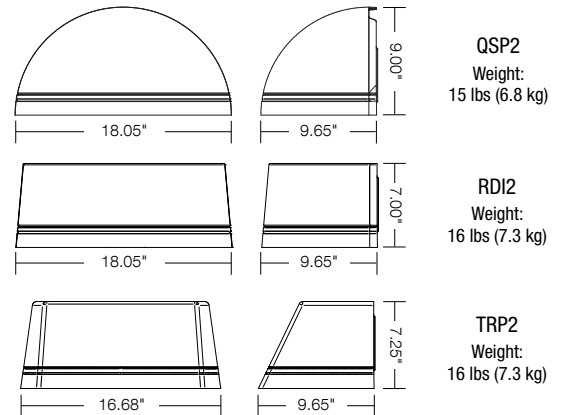


Radius



Quartersphere

DIMENSIONS



SHIPPING INFORMATION

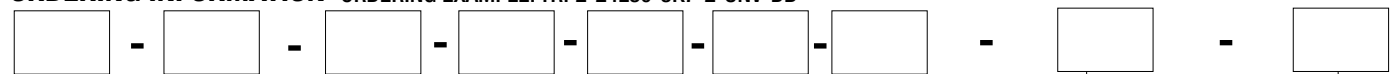
Catalog Number	G.W(kg)/CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
QSP2	17 (7.7)	20.5 (52)	10.5 (26)	11 (28)
RD12	18 (8.2)	20.5 (52)	9.5 (24)	12 (30)
TRP2	16 (7.3)	18.5 (47)	9.5 (24)	11.5 (29)

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only

ORDERING INFORMATION ORDERING EXAMPLE: TRP2-24L30-3K7-2-UNV-DB



FAMILY	LEDS - WATTAGE	CCT	DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS
TRP2	Trapezoid	24L-30 24 LEDs, 30 watts	3K7 3000K, 70CRI	1 UNV 120-277V	BL Black Textured	PC Button Photocontrol	SF ³ Single Fuse & Fuse Holder
RD12	Radius	24L-50 24 LEDs, 50 watts	4K7 4000K, 70CRI	2 120 120V	DB Dark Bronze Textured	SCP ^{4,5} Programmable occupancy sensor, factory default is 10% light output	DF ³ Double Fuse & Fuse Holder
QSP2	Qtr-sphere	24L-70 24 LEDs, 70 watts	5K7 5000K, 70CRI	3 208 208V	GT Graphite Textured	SCO ⁴ Sensor Control, On/Off	E ³ Battery Pack (0°C)
		24L-90 24 LEDs, 90 watts		4 240 240V	GYS Light Gray Smooth	SWP ^{3,7} SiteSync Pre-Commission	EH ³ Battery Pack (-30°C) with heater
		32L-70 32 LEDs, 70 watts		277 277V	PS Platinum Silver Smooth	SWPM ^{3,4,7,8} SiteSync Pre-commission w/Occupancy Sensor	2DR ⁶ Dual Drivers
		32L-90 32 LEDs, 90 watts		UHV ¹ 347/480V	WH White Textured	SPEC SCP/SCO & SWPM MOUNT HEIGHT	2PF ⁶ Dual Power Feeds
				347 ¹ 347V	CC Custom Color	-8F Up to 8ft mount height	CS Comfort Shield
				480 ¹ 480V		-20F Up to 20ft mount height	

SECONDARY MOUNTING

BLANK Downlight Only
NV² Inverted/Up Mounting

¹ 70 & 90 watt versions only
² Not available with SCP, SCO or SWPM sensor options
³ Must specify voltage (120, 277 or 347V only for SWP & SWPM, 120 or 277V only for E & EH)
⁴ PCU option not applicable, included in sensor
⁵ Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings
⁶ Not available with 30w version
⁷ Not available with E/EH options. Must specify group and zone information at time or order. See www.hubbellighting.com/products/sitesync for future details
⁸ Specify time delay; dimming level and mounting height



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TRP2/RD12/QSP2-SPEC
APRIL 23, 2019 1:59 PM

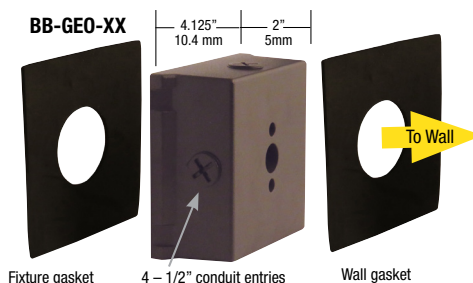
ACCESSORIES (ORDER SEPARATELY)

Catalog Number	Description
SCP-REMOTE*	Remote control for SCP option. Order at least one per project to program and control dimming settings
BB-GEO-XX	Black box with 4 - 1/2" threaded conduit holes, specify finish by replacing "XX" with finish selection, eg. Dark Bronze "DB"
SWUSB**	SiteSync loaded on USB flash drive (Windows based only)
SWTAB**	SiteSync Windows Tablet
SWBRG*	SiteSync Wireless Bridge Node

* Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings.
 ** 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.
 + If needed, an additional Bridge Node can be ordered.



BB-GEO-XX – Mounted to luminaire



INPUT POWER CONSUMPTION

# OF LEDS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (w)
24	350mA	120	0.23	28
		277	0.10	28
	625mA	120	0.41	49
		277	0.18	49
	900mA	120	0.59	71
		277	0.25	71
		347	0.20	71
		480	0.15	71
	1100mA	120	0.72	87
		277	0.31	87
		347	0.25	87
		480	0.18	87
32	650mA	120	0.56	67
		277	0.24	67
		347	0.19	67
		480	0.14	67
	850mA	120	0.69	83
		277	0.30	83
		347	0.24	83
		480	0.17	83

PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW'	B	U	G	LUMENS	LPW'	B	U	G	LUMENS	LPW'	B	U	G
24	350mA	28	1	4,075	146	1	0	0	4,065	146	1	0	0	3,660	131	0	0	0
			2	3,747	134	1	0	1	3,738	134	1	0	1	3,366	121	1	0	1
			3	3,756	135	1	0	1	3,747	134	1	0	1	3,374	121	1	0	1
			4	3,656	131	0	0	1	3,647	131	0	0	1	3,284	118	0	0	1
	625mA	49	1	6,329	130	1	0	0	6,313	130	1	0	0	5,685	117	1	0	0
			2	5,820	120	1	0	1	5,806	119	1	0	1	5,228	108	1	0	1
			3	5,833	120	1	0	2	5,819	120	1	0	2	5,240	108	1	0	2
			4	5,678	117	1	0	2	5,664	117	1	0	2	5,100	105	1	0	2
	900mA	71	1	8,613	122	1	0	1	8,592	122	1	0	1	7,737	110	1	0	1
			2	7,921	112	1	0	2	7,902	112	1	0	2	7,115	101	1	0	2
			3	7,939	112	1	0	2	7,920	112	1	0	2	7,131	101	1	0	2
			4	7,728	109	1	0	2	7,709	109	1	0	2	6,942	98	1	0	2
	1100mA	87	1	10,791	124	1	0	1	10,765	124	1	0	1	9,694	112	1	0	1
			2	9,924	114	2	0	2	9,900	114	1	0	2	8,915	103	1	0	2
			3	9,946	115	1	0	2	9,922	114	1	0	2	8,935	103	1	0	2
			4	9,682	112	1	0	2	9,659	111	1	0	2	8,696	100	1	0	2
32	650mA	67	1	8,621	129	1	0	1	8,600	128	1	0	1	7,744	116	1	0	1
			2	7,928	118	1	0	2	7,909	118	1	0	2	7,122	106	1	0	2
			3	7,946	119	1	0	2	7,927	118	1	0	2	7,137	107	1	0	2
			4	7,735	115	1	0	2	7,716	115	1	0	2	6,948	104	1	0	2
	850mA	83	1	10,806	130	1	0	1	10,780	130	1	0	1	9,705	117	1	0	1
			2	9,938	120	2	0	2	9,914	119	1	0	2	8,927	108	1	0	2
			3	9,960	120	1	0	2	9,936	120	1	0	2	8,947	108	1	0	2
			4	9,695	117	1	0	2	9,672	117	1	0	2	8,709	105	1	0	2



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Outdoor Lighting

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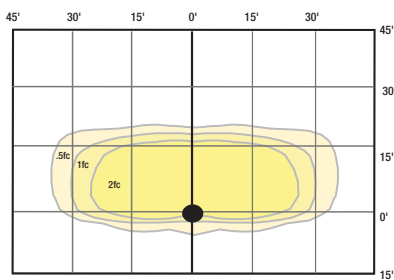
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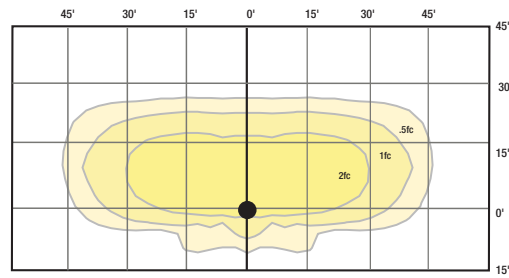
TRP2/RD12/QSP2-SPEC

APRIL 23, 2019 1:59 PM

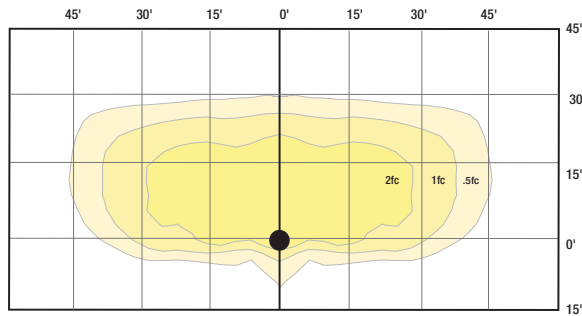
PHOTOMETRIC REPORTS



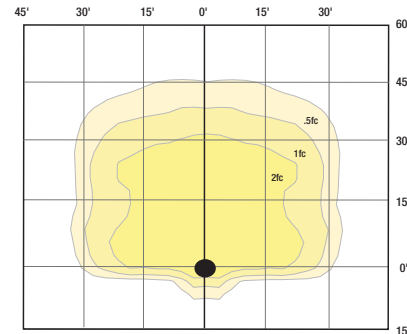
TRP2-24L-50-4K7-1
15' MOUNTING HEIGHT



TRP2-24L-50-4K7-2
15' MOUNTING HEIGHT

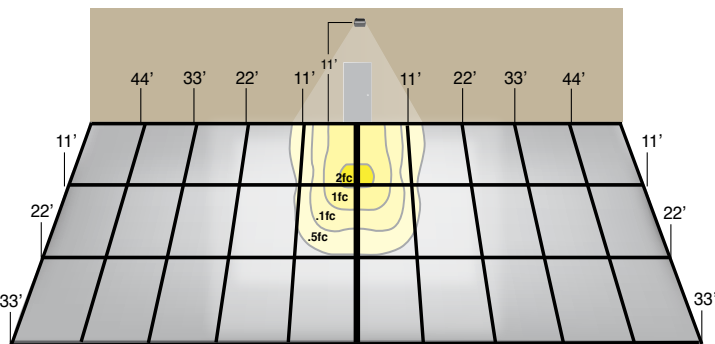


TRP2-24L-50-4K7-3
15' MOUNTING HEIGHT



TRP2-24L-50-4K7-4
15' MOUNTING HEIGHT

PHOTOMETRICS - BATTERY BACK UP



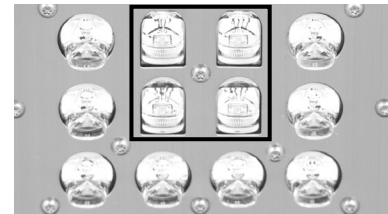
11' Mounting Height

Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions and mounting height of 11'.

Diagrams for illustration purposes only, please consult factory for application layout.

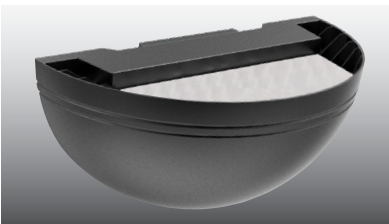
Battery backup units consume 6 watts when charging a dead battery and 2 watts during maintenance charging. EH (units with a heater) consume up to an additional 8 watts when charging if the battery temp is lower than 10°C

E & EH EMERGENCY BATTERY BACKUP



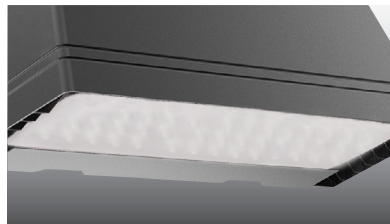
24 or 32 high power LEDs generate up to 11,000 lumens in normal mode and use 4 LEDs for up to 700 lumens in emergency mode.

INVERTED MOUNTING



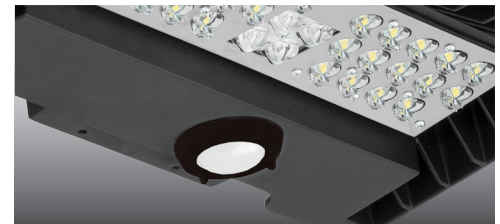
Inverted mounting capabilities for uplighting applications. Specially designed frosted acrylic diffuser softens output, improves uniformity and prevents water from collecting.

COMFORT SHIELD



Comfort shield option utilizes a frosted acrylic lens that softens output and improves uniformity. Available from the factory or as an accessory for field installation.

CONTROL OPTIONS



Programmable occupancy sensor offers greater control and energy savings with adjustable delay and dimming levels (Factory default is 10%)

Google Groups

Proposal of Building at 66 State Street

shewee@aol.com <shewee@aol.com>

Jul 15, 2019 9:41 AM

Posted in group: **Planning Board**

Hi,
I have attached a letter regarding the changes to the property at 66 State Street.
I would appreciate it if you would consider my thoughts as you decide on this proposal.

Respectfully,

Deb Gellerson
Volunteer at Maine Irish Heritage Center (former St. Dominic's Church)

207-650-6781

Deb Gellerson
1 Brads Way
Raymond, ME 04071

July 15, 2019

Planning and Urban Development Department

bab@portlandmaine.gov

Planning Board

planningboard@portlandmaine.gov

RE: Proposed Housing Development
66 State Street

Dear Planning Development Board and Planning Board:

I would appreciate you considering my opinion as a longtime volunteer with the Maine Irish Heritage Center (MIHC), formally the St. Dominic's Church.

Firstly, I speak on my own as a volunteer and not as a representative of the Maine Irish Heritage Center. I wish to share my personal experiences as a volunteer in this Portland neighborhood that will be affected by the potential building changes at 66 State Street.

The City of Portland was fortunate 16 years ago to entrust St. Dominic's Church to a small group of people who were dedicated to saving this Portland landmark. This group and its membership have worked tirelessly at trying to keep this historic building intact. It is done largely from fundraising; a prime fundraiser being weddings and other family events. The people who pay us to hold these events have high expectations of us, of the building, and of the neighborhood. And they should.

I would urge you to consider the impact that this development may have to this building; a building that the City of Portland chose to keep as an important landmark in the City.

As a volunteer, please allow me to explain to you what our process needs to be for every event such as a wedding with the neighboring building under the current ownership of Amistad:

Days before we begin to clean up the neighborhood picking up trash, discarded clothes and debris, broken bottles, used needles. We squeeze into the space fenced off along State Street, the alleys and the nearby dumpsters; pick up the collections of old furniture and whatever has been dragged into the surrounding areas. This process continues until minutes before an event begins. Then, on the event day we need to monitor every entrance for non-guests who try to enter the building.

I have on many occasions been one of the volunteers who have had to call the police or the rescue due to situations happening on our premises or on the sidewalk areas where our guests will be walking. This is the current situation we deal with; when the hours for the Amistad building are daytime, weekday hours. I believe with 24/7 residents and support staff here, the situation will worsen. I ask you to

seriously consider how this proposed housing with “support” services and an inside parking lot will negatively impact our attempt to make money to keep this building.

The proposal will eliminate the ability to have any weekend parking for MIHC. While I realize that this parking lot is not owned by MIHC, I ask the Council to consider that, regardless of what the usage outcome is for this property, eliminating this area from MIHCs usage on the weekends will have a dramatic effect on having events at MIHC. When the City entrusted the building to the volunteers; the city and the Catholic Church did not provide parking opportunities to the building that was once part of a complex of shared parking. This requirement is only a common sense solution to helping to preserve the opportunities for MIHC. Elderly and handicap persons and service people must have access to this building.

The proposal will further take away from the beauty of MIHC. To allow further construction around this building will just further detract from the character of this neighborhood.

In my opinion, this proposal will encourage far more loitering around MIHC than occurs now. The proposed housing will entice more people to hang around and more people to use the alleys and stairways of MIHC to deposit debris and make it even more difficult for volunteers of MIHC to maintain the property for special events. If you decide to approve this plan I ask you to insist upon full time 24 hour security and property maintenance; coverage which includes outside maintenance to MIHC grounds.

I believe that the owners of the surrounding buildings should have an obligation to help to preserve and protect this 1800's building; a building that was built by hand from some of the first immigrants of the City of Portland. A building that the City chose to protect and preserve. The building that is precious to the character of the neighborhood and icon of the City. Please, help our small group of volunteers to keep it going. I am truly afraid that with the proposed increased building footprints, the loss of the parking area, and the strong potential of increased loitering and debris, MIHC will no longer become appealing for people to rent for special events. If that is the case, the income to keep plugging away at restoring the Maine Irish Heritage Center will diminish. With every wedding and special event contract that we lose because of the loss of aesthetic beauty of the surrounding area, is another bit of income that we could have used trying to save this building.

I ask you, sincerely, as stewards of the city of Portland, to please seriously consider the impact this would have on the Maine Irish Heritage Center and its volunteers. Further, as you consider the future uses of the Mercy Hospital and the Precious Blood properties, think about the opportunity you have as Council to create parking opportunity for weekend events at MIHC. You, as councilors of the City of Portland have an opportunity to help ensure a positive outcome for MIHC.

Respectfully,

Deb Gellerson

Google Groups

66 State St, Amastaid Building

Suzanne Hunt <shuntadoherty@gwi.net>

Jul 17, 2019 6:20 AM

Posted in group: **Planning Board**

I do not feel that the open space requirement should be reduced for this development. Given the density and the proposed use a maximum of open space should be required.

I am a property owner at 36 Winter Street. I am optimistic regarding the lodging house idea.

Thank you, Suzanne Hunt

Sent from my iPad

Fwd: FW: Public comment on 66 State Street zoning variance appeal

1 message

Andrew Tufts <atufts@portlandmaine.gov>
To: Jennifer Munson <jmy@portlandmaine.gov>

Wed, Jul 17, 2019 at 2:05 PM

[66 State Street](#) public comment

----- Forwarded message -----

From: **Elizabeth Parsons** <ecparsons33@hotmail.com>
Date: Wed, Jul 17, 2019 at 10:20 AM
Subject: FW: Public comment on [66 State Street](#) zoning variance appeal
To: atufts@portlandmaine.gov <atufts@portlandmaine.gov>

FYI. Sent to Board of Zoning Appeal.

Last evening, I attended the public meeting on the proposal put forward by Developers Collaborative. While I am neither opposed to the envisioned use of overall project as currently being discussed nor to the general idea of constructing a building on a parking lot, I am opposed to the request for a zoning variance.

These are the reasons why:

- There was widespread concern amongst meeting attendees last evening about the lack of open/green space left if the proposal goes through as the company envisions. Yet, this request for a variance is specifically to reduce the minimum landscaped open space.
- Portland and South Portland are currently conducting a much-needed climate change planning process, One Climate Future.
 - It is widely understood that trees and other greenery are critical elements for mitigating carbon emissions and helping cool the planet. Yet, construction of a building on this lot will most likely entail felling (or killing by disturbance) the one mature tree left nearby. Extending the building's footprint via the requested variance would also entail taking down the evergreen hedge between the site and the Danforth Inn.
 - While the plans include remarks about installing landscaped islands and replanting trees, taking away well-established vegetation and inserting new, smaller vegetation is not a one-to-one trade off, especially when it's acknowledged that the end product will be smaller than what's there now.
 - The argument made for the building size (on which the request for a variance hinges) was the typical one developers use: that it's needed "to make the numbers work." This refers, of course, to monetary numbers. If, however, the number for carbon emissions does not very soon decrease, monetary numbers aren't going to matter.

Developers Collaborative has shown sensitivity to ecological concerns by planning to use the site's geothermal wells and for the new building to meet current "green" standards. This is all good. Given the urgency of the climate crisis, though, I suggest the Zoning Board of Appeals tell them to go back to the drawing board, devise a proposal that fits within current zoning parameters and that shows comprehensive understanding of the City's climate action goals. It's highly unlikely that insisting they stay within already established guidelines while keeping an eye on the future here would damage this well-established and respected local company.

Sincerely,

Elizabeth C. Parsons

[44 Winter Street](#)

member, Portland Climate Action Team

--
Andrew Tufts
Project Planner
Planning and Urban Development Department

389 Congress Street 4th Floor
Portland, ME 04101
atufts@portlandmaine.gov
(207) 874-8724

APPLICANT:
DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

PROJECT PARCELS
CITY OF PORTLAND TAX ASSESSOR'S MAP, BLOCK, & LOT NUMBERS
MAP BLOCK LOT RECORD OWNER
44 H 1 DC 66 STATE LLC

SITE DEVELOPMENT PLANS

FOR

66 STATE STREET

PORTLAND, MAINE

JUNE 2019

PERMIT DOCUMENTS

SHEET INDEX

C-1.0	COVER SHEET
C-1.1	GENERAL NOTES & LEGEND
1	BOUNDARY & TOPOGRAPHIC SURVEY
C-2.0	RECORDING PLAT - IN PROGRESS
C-2.1	EXISTING CONDITIONS & DEMOLITION PLAN
C-2.2	CONSTRUCTION MANAGEMENT PLAN
C-3.0	SITE PLAN
C-4.0	GRADING, DRAINAGE & EROSION CONTROL PLAN
C-5.0	UTILITY PLAN
C-6.0	SITE DETAILS
C-6.1	UTILITY AND DRAINAGE DETAILS
C-6.2	EROSION CONTROL NOTES & DETAILS
L-1	LANDSCAPE PLAN
P-1	LIGHTING PHOTOMETRIC PLAN



LOCATION MAP

SCALE: 1"=500'

PERMITS

TYPE OF PERMIT	GOVERNING BODY	STATUS
SITE PLAN/SUBDIVISION APPROVAL	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, 389 CONGRESS STREET PORTLAND, ME 04101 TEL. 207.874.8722	SUBMITTED 6/5/2019
BUILDING PERMIT	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, 389 CONGRESS STREET PORTLAND, ME 04101 TEL. 207.874.8900	TO BE SUBMITTED BY BUILDING CONTRACTOR
UTILITY / STREET OPENING	CITY OF PORTLAND PUBLIC SERVICES DIVISION 55 PORTLAND STREET PORTLAND, ME 04101 TEL. 207.874.8801	TO BE FILED BY SITE CONTRACTOR

UTILITIES

SEWER/STORM
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
55 PORTLAND STREET
PORTLAND, MAINE 04102
207.874.8850

WATER
PORTLAND WATER DISTRICT
22 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.774.5961

ELECTRIC
CENTRAL MAINE POWER COMPANY
162 CANCO ROAD
PORTLAND, ME 04103
(207) 842-2367

TELEPHONE
FAIRPOINT COMMUNICATIONS
5 DAVIS FARM ROAD
P.O. BOX 11560
PORTLAND, MAINE 04103
888.984.1515

NATURAL GAS
UNITIL
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
866.933.3821

DIG SAFE SYSTEM, INC.
TEL. 1-888-DIG-SAFE (344-7233)
WWW.DIGSAFE.COM

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
565 CONGRESS STREET, SUITE 201
PORTLAND, MAINE 04101
207.926.5111
CONTACT: MICHAEL TADEMA-WIELANDT

ARCHITECT:
ARCHETYPE ARCHITECTS
48 UNION WARE
PORTLAND, ME 04101
207.772.6022
CONTACT: DAVID LLOYD

SURVEYOR:
OWEN HASKELL, INC.
309 U.S. ROUTE ONE, UNIT 10
FALMOUTH, MAINE 04105
207.774.0424
CONTACT: JOHN SCHWANDA

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
LICENSED PROFESSIONAL ENGINEER

DATE: 6-5-19
P.E.: MICHAEL E. TADEMA-WIELANDT

APPROVED BY

REVISIONS

DATE

NO.

66 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLoucester, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradync consultants.com

TERRADYN
CONSULTANTS, LLC

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
PROPOSED BUILDING AND BUILDING RENOVATION
66 STATE STREET
PORTLAND, ME 04101
SHEET TITLE:
COVER SHEET

CLIENT:
DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE: 6/3/2019
SCALE: AS NOTED
DESIGNED: ARF
JOB NO: 1824
FILE: 1824-C.DWG
SHEET

C-1.0

- THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF ALL REGULATIONS ADMINISTERED BY THE LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, EXITS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS.
- ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.
- 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 (1-888-DIGSAFE). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, AT NO EXTRA EXPENSE TO THE OWNER.
- MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE OWNER 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 OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.
- 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.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO PROJECT CONTRACT SPECIFICATIONS, AND THE CITY OF PORTLAND TECHNICAL MANUAL STANDARDS, WHICHEVER IS MORE STRINGENT.
- TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION WAS PROVIDED BY OWEN HASKELL, INC. ELEVATIONS BASED ON CITY DATUM, BENCHMARK: "BONNET BOLT HYDRANT", ELEVATION 92.89'. BEARINGS ARE GRID NORTH AS BASED ON CITY MONUMENT T124-25-1237 AT CORNER OF DANFORTH AND WINTER STREETS AND T124-25-1238 AT SOUTHERN CORNER OF DANFORTH AND STATE STREETS.
- FEMA MAP COMMUNITY PANEL NUMBER 230051 0013 B. THE SITE IS LOCATED IN A C ZONE.
- THE PROPERTY SHOWN ON THIS PLAN MAY BE DEVELOPED AND USED ONLY AS DEPICTED IN THIS APPROVED PLAN. ALL ELEMENTS AND FEATURES OF THE PLAN AND ALL THE PROPERTY WHICH APPEARS IN THE RECORD OF THE PLANNING BOARD PROCEEDINGS ARE CONDITIONS OF THE APPROVAL. NO CHANGE FROM THE CONDITIONS OF APPROVAL IS PERMITTED UNLESS AN AMENDED PLAN IS FIRST SUBMITTED TO AND APPROVED BY THE PLANNING AUTHORITY.
- ALL SIGNAGE SHALL CONFORM TO THE STANDARDS FOR SIZE, HEIGHT, LOCATION AND REFLECTIVITY SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL CURB SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AS NOTED ON THE PLANS: GRANITE CURB SHALL MEET THE REQUIREMENTS OF MaineDOT SPECIFICATIONS 609.03 AND CITY OF PORTLAND TECHNICAL STANDARDS.
- ALL DIMENSIONING UNLESS OTHERWISE NOTED IS TO THE FACE OF CURB OR FACE OF BUILDING.
- THE FACILITY IS SERVICED BY PUBLIC WATER, SEWER, NATURAL GAS, AND OVERHEAD POWER.
- THE CONTRACTOR IS REQUIRED TO NOTIFY THE CITY OF PORTLAND PUBLIC WORKS INSPECTION SERVICES DIVISION (874-8300 EXT. 8838), CODE ENFORCEMENT OFFICE AND DEVELOPMENT REVIEW COORDINATOR IN WRITING THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING MAY BE REQUIRED TO INCLUDE THE PUBLIC WORKS AUTHORITY OR DEVELOPMENT REVIEW COORDINATOR.
- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
- WARNING SIGNS, MARKERS, BARRICADES OR FLAGMEN MUST BE EMPLOYED ON ADJACENT STREETS AS NECESSARY. THE CONTRACTOR SHALL COORDINATE AND SEEK APPROVAL FROM THE PUBLIC SERVICE DIVISION FOR THE PLACEMENT/PARKING OF EQUIPMENT WITHIN THE PUBLIC RIGHT OF WAY.
- CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED AND DISPOSED OF IN ACCORDANCE WITH THE CITY OF PORTLAND'S SOLID WASTE ORDINANCE CHAPTER 12. ALL SALVAGED MATERIAL WITHIN THE PUBLIC R.O.W.(SIDEWALKS, BRICKS, GRANITE CURB) NOT REUSED SHALL BE DISPOSED OF AS DIRECTED BY THE PORTLAND PUBLIC SERVICES DEPARTMENT AT NO EXTRA COST TO THE OWNER.
- ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
- PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AT ALL TIMES DURING CONSTRUCTION TO INSURE INTEGRITY. IF DISTURBED THEY SHALL BE REPLACED BY A SURVEYOR REGISTERED IN THE STATE OF MAINE AT THE CONTRACTOR'S EXPENSE.
- A STREET OPENING PERMIT MUST BE OBTAINED FROM THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT PRIOR TO BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE COMPLETED IN CONFORMANCE TO THE CITY'S RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN PUBLIC RIGHT OF WAYS.
- CONTRACTOR MUST MAINTAIN THROUGH TRAFFIC ON ADJACENT STREETS AT ALL TIMES.
- ALL METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS IDENTIFIED HEREIN SHALL CONFORM TO THE CITY OF PORTLAND CONSTRUCTION AND TECHNICAL STANDARDS AND SPECIFICATIONS AND/OR CURRENT MaineDOT STANDARDS AND SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
- RECORD DRAWINGS MUST INCLUDE ALL BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, BENDS, APPURTENANCES, AND OTHER FEATURES, TO BE LOCATED IN THE FIELD BY GIS AND RECORDED AS AN AS-BUILT PLAN BY THE CONTRACTOR AT THE END OF THE PROJECT. THIS PLAN SHALL ALSO BE PROVIDED TO THE OWNER.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS PREPARED BY ARCHETYPE ARCHITECTS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, EXIT PORCHES, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE POINTS.
- ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.
- CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITIES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST THREE (3) BUT NOT MORE THAN (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRS.A 3360-A.

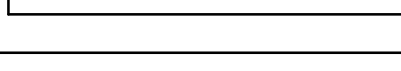
1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $n = 0.013$ OR LESS. UNLESS A SPECIFIC PIPE MATERIAL IS CALLED FOR ON THE CONTRACT DRAWINGS, PVC PIPING SHALL NOT BE USED IN AREAS OF EXPOSED SUNLIGHT.
2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EARTHWORK OPERATIONS TO INSURE THAT DISTURBANCE TO ANY STEEP SLOPE AREAS ARE MINIMIZED TO THE EXTENT PRACTICABLE.
3. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY OTHERS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
4. ALL PAVING WITHIN THE PUBLIC R.O.W. SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF PORTLAND RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC R.O.W.
5. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
6. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
7. THE CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES AND PHYSICAL FEATURES THAT ARE OUTSIDE THE SCOPE OF WORK. THE CONTRACTOR SHALL MAINTAIN SITE STABILITY DURING CONSTRUCTION TO AVOID EROSION AND SEDIMENT TRANSPORT. CONTRACTOR SHALL RESTORE ALL AREAS TO A FINAL STABILIZED CONDITION AS DIRECTED BY DESIGN DRAWINGS.
8. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
9. EXTERIOR GRADES AROUND PROPOSED STRUCTURE SHALL BE COORDINATED WITH FINAL BUILDING PLANS AND PROVIDE FOR ALL ACCESS OPENINGS.
10. SUBGRADE FILL PLACED BENEATH ALL PERMANENT PAVEMENT, SIDEWALK OR CONCRETE SURFACES EXCLUDING ANY BUILDING AREAS, SHALL BE GRANULAR BORROW. SUBGRADE FILL PLACED BENEATH ALL LANDSCAPE AREAS EXCEPT THOSE ADJACENT THE FOUNDATION SYSTEMS MAY BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION. FREE FROM FROZEN MATERIAL, PERISHABLE RUBBLE, PEAT, ORGANICS, ROCKS LARGER THAN 12" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SUBGRADE CONSTRUCTION. EXCAVATED ON-SITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER. EXCAVATED ONSITE MATERIALS MAY NOT BE USED AS COMPACTED STRUCTURAL FILL BENEATH THE BUILDING AREAS OR AS FOUNDATION BACKFILL. GRANULAR BORROW AND COMMON BORROW SHALL COMPLY WITH MaineDOT SPECIFICATIONS.
11. ALL FILLS SHALL BE PLACED IN LAYERS NOT MORE THAN 12" LOOSE DEPTH AND COMPACTED BY HEAVY COMPACTION EQUIPMENT. MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ASTM 1557, MODIFIED AND FIELD DENSITY ASTM D2922 (NUCLEAR METHODS).
12. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

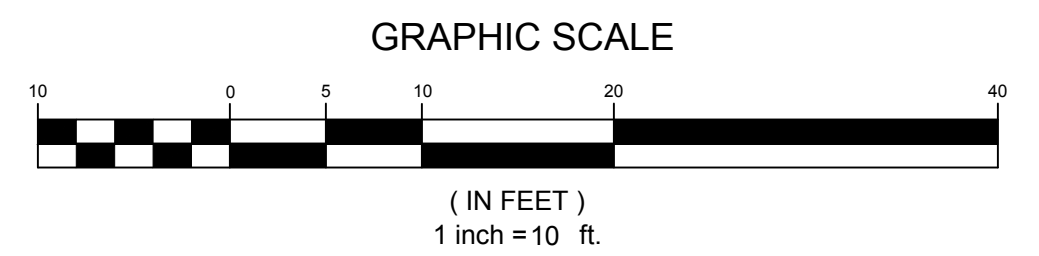
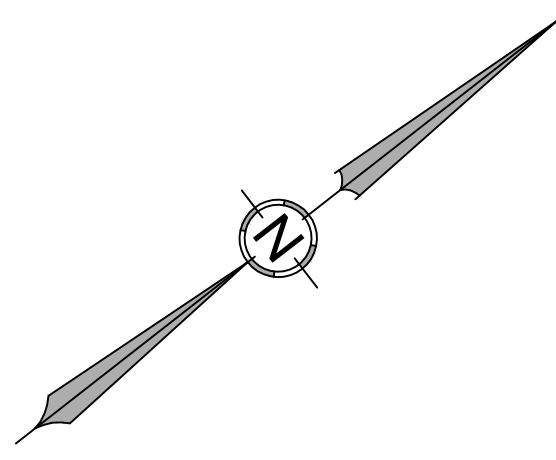
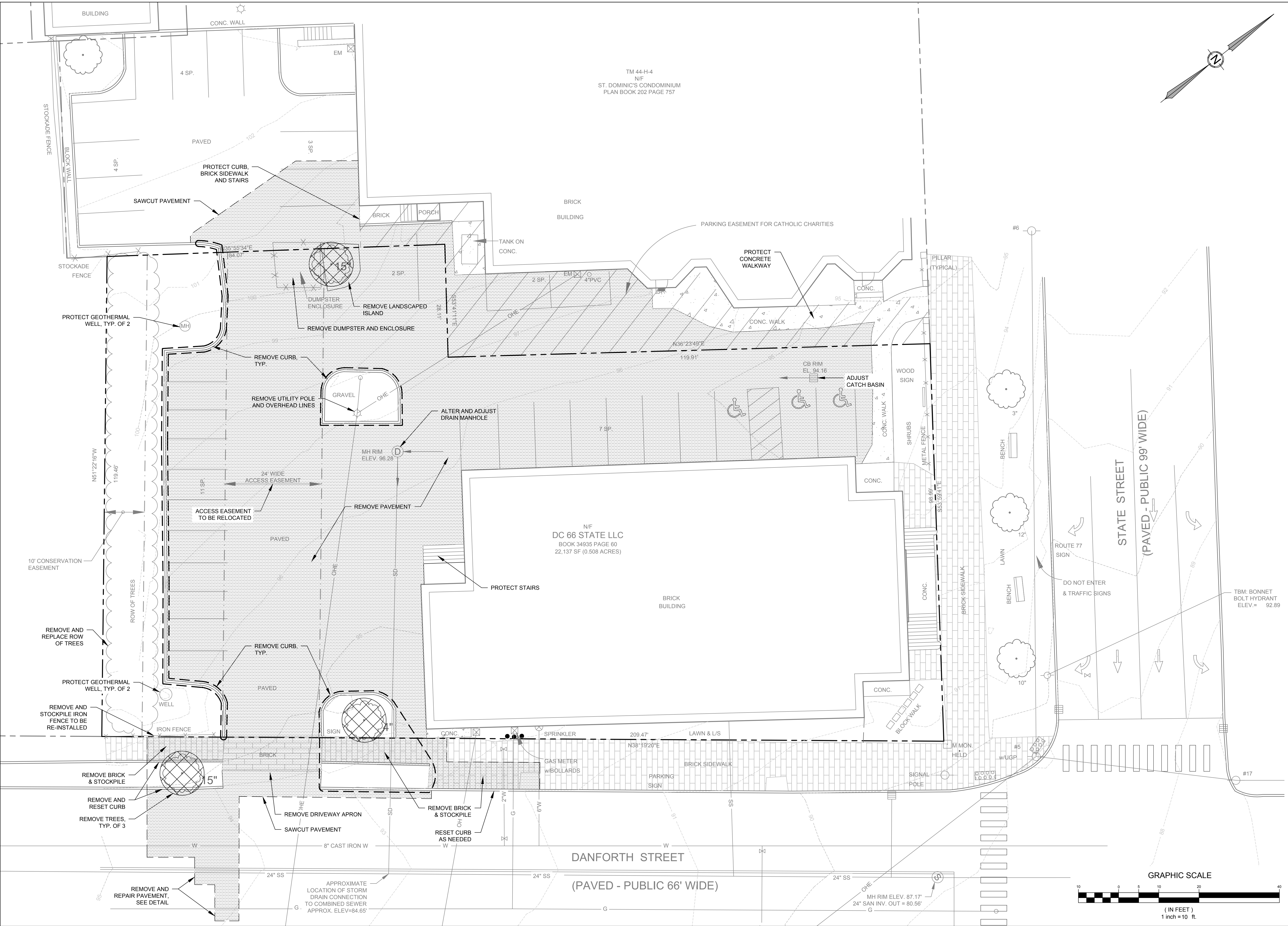
1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED BETWEEN THE SITE WORK CONTRACTOR AND DIVISION 22/28 CONTRACTOR(S). THE SITE WORK CONTRACTOR SHALL BE RESPONSIBLE TO EXTEND ALL PROPOSED UTILITIES TO WITHIN FIVE (5) FEET OF THE BUILDING TO A LOCATION COORDINATED WITH THE MECHANICAL AND ELECTRICAL SUBCONTRACTORS. THE BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES WITHIN FIVE (5) FEET AND INSIDE THE BUILDING OR UNDER SLAB.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH FAIRPOINT COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER, THE TELECOMMUNICATIONS SERVICE WITH FAIRPOINT COMMUNICATIONS, AND THE CABLE SERVICE WITH TIME WARNER CABLE. ALL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS OR UTILITY COMPANY STANDARDS, WHICHEVER IS MORE STRINGENT.
4. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
6. 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.
7. 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.
8. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. A 12 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
9. THE CONTRACTOR SHALL 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.
10. ALL SANITARY SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT. ALL SANITARY SERVICES AND APPURTENANCES TO BE ABANDONED SHALL BE PROPERLY RECORDED WITH PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT. A DIGITAL VIDEOTAPE SHALL BE MADE OF SANITARY SEWER SYSTEMS TO BE UTILIZED PRIOR TO CONSTRUCTION. UPSTREAM PIPES INTENDED FOR ABANDONMENT SHALL BE INSPECTED TO VERIFY THAT THEY NO LONGER SERVE OTHER FACILITIES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF THE SITE PLAN REVIEW PERMIT FROM THE CITY OF PORTLAND WHICH WILL BE MADE A PART OF THE CONTRACT BID DOCUMENTS. THE CONSTRUCTION WILL BE GOVERNED BY THE ZONING ORDINANCES WHICH ARE AVAILABLE FOR VIEWING AT THE OFFICE OF THE ENGINEER OR THE MUNICIPAL OFFICE.

DIMENSIONAL REQUIREMENTS (R6 ZONE)		
STANDARD	R6	PROVIDED
MIN. LOT SIZE	2,000 SF	23,497 SF
MIN. FRONTAGE	20 FT	99 Ft
# UNITS	-	30 RESIDENTIAL 38 LODGING HOUSE ROOMS
MIN. LOT AREA PER RESIDENTIAL DWELLING UNIT	725 SF	783 SF
MIN. LOT AREA PER LODGING HOUSE ROOMING UNIT	250 SF	618 SF
MIN. FRONT YARD	5 FT OR AVG. DEPTH OF ADJACENT FRONT YARDS	8 FT (EXISTING)
MIN. SIDE YARD	5 FT OR NONE ON A SIDE STREET	5 FT 3 FT (SIDE STREET)
MIN. REAR YARD	10 FT	10 FT
MAX. LOT COVERAGE	60%	54%
LANDSCAPE OPEN SPACE	20%	12.6%
MAXIMUM STRUCTURE HEIGHT	45 FT	45 Ft
PARKING	27 RESIDENTIAL SPACES (1 SPACE/UNIT + 30 - FIRST 3 UNITS) 8 LODGING HOUSE SPACES (1 SPACE/EVERY 5 ROOMING UNITS)	18 FOR RESIDENTIAL (0.6 SPACES/RESIDENCE) 2 FOR ABUTTER 2 FOR LODGING HOUSE
BICYCLE PARKING	2 SPACES PER EVERY 5 UNITS (12 SPACES)	12

	EXISTING PROPERTY LINE
	PROJECT SITE BOUNDARY
	EXISTING SETBACK LINE
	PROPOSED EASEMENT
124	EXISTING MINOR CONTOUR
124	EXISTING MAJOR CONTOUR
124	PROPOSED CONTOUR
SD	EXISTING STORMDRAIN
SD	PROPOSED STORMDRAIN
S	EXISTING SANITARY SEWER
S	PROPOSED SANITARY SEWER
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
UD	EXISTING UNDERDRAIN
UD	PROPOSED UNDERDRAIN
OHE	EXISTING OVERHEAD ELECTRIC & TELEPHONE
OHE	PROPOSED OVERHEAD ELECTRIC & TELEPHONE
UGE	EXISTING UNDERGROUND ELECTRIC & TELEPHONE
UGE	PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
	EXISTING EDGE OF PAVEMENT
	PROPOSED EDGE OF PAVEMENT
	EXISTING EDGE OF GRAVEL
	PROPOSED EDGE OF GRAVEL
	EXISTING CURB
	PROPOSED CURB
	PROPOSED FENCE
SF	SILT FENCE
TP-A	TEST PIT
	EXISTING VALVE
	PROPOSED VALVE
	EXISTING HYDRANT
	EXISTING LIGHT POLE
	PROPOSED LIGHT POLE
	EXISTING UTILITY POLE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING DRAIN MANHOLE
	PROPOSED DRAIN MANHOLE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
	EXISTING SPOT GRADE
30.20	PROPOSED SPOT GRADE
	SURVEY CONTROL POINT
	EXISTING MONUMENT
	EXISTING IRON PIPE
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING BUILDING
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED PAVEMENT
	PROPOSED BRICK





STATE OF MAINE
MICHAEL E. TADEMA-WELANDT
LICENSED PROFESSIONAL ENGINEER

DATE: 6-5-19
P.E.: MICHAEL E. TADEMA-WELANDT

APPROVED BY

NO.

DATE

REVISIONS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
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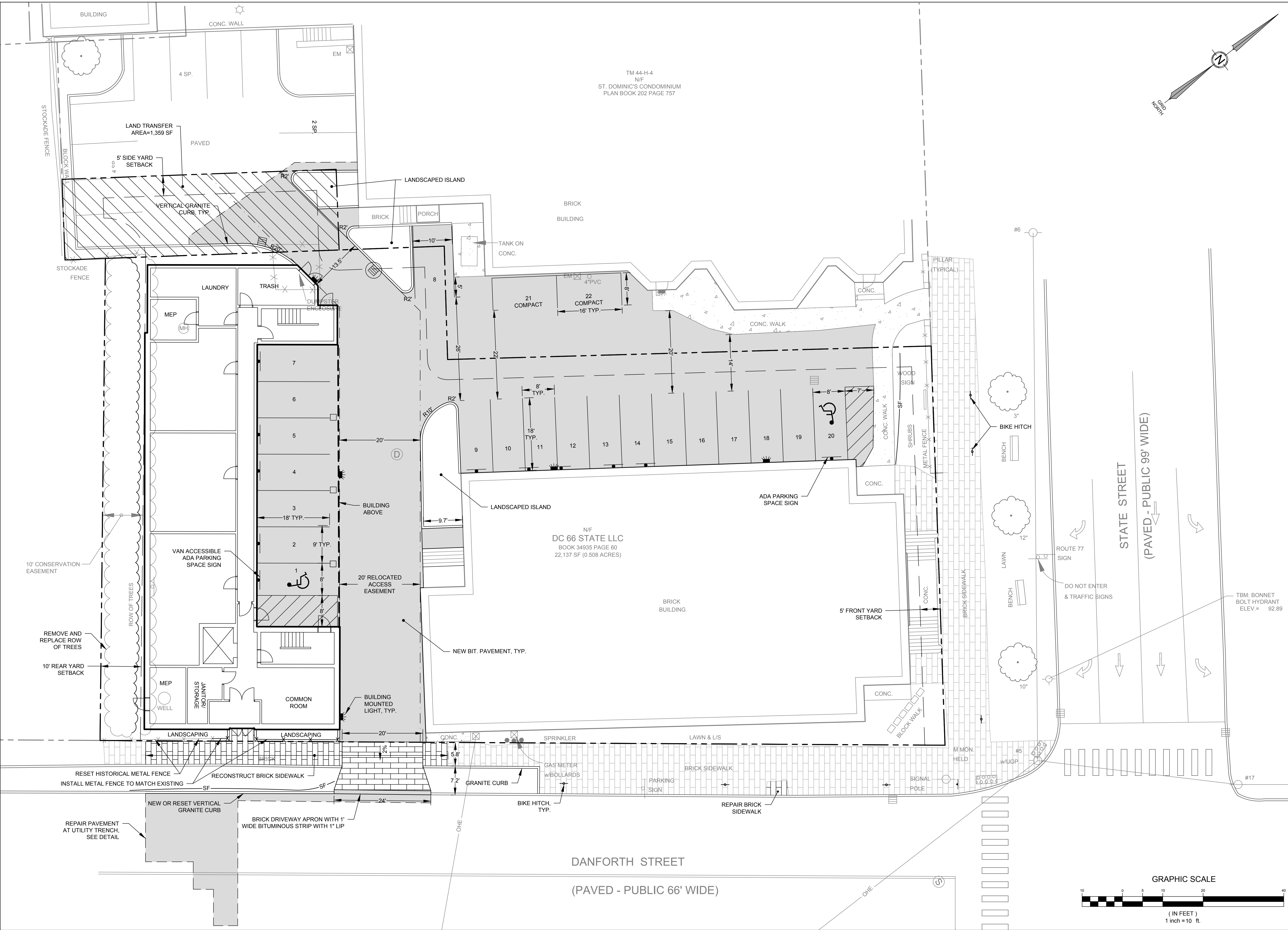
PROJECT:
PROPOSED BUILDING AND BUILDING RENOVATION
66 STATE STREET
PORTLAND, ME 04101

SHEET TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN

CLIENT:
DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE: 6/3/2019
SCALE: 1"=10'
DESIGNED: ARF
JOB NO: 1824
FILE: 1824-B.DWG

SHEET
C-2.1



STATE OF MAINE

MICHAEL E. TADEMA-WIELANDT

REGISTERED PROFESSIONAL ENGINEER

DATE: 7-9-2019

P.E.: MICHAEL E. TADEMA-WIELANDT

MTW

APPD

BY

REVISED PER CITY STAFF COMMENTS

DATE

NO.

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PROJECT: PROPOSED BUILDING AND BUILDING RENOVATION
66 STATE STREET
PORTLAND, ME 04101
SHEET TITLE: SITE PLAN

CLIENT: DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE: 6/3/2019

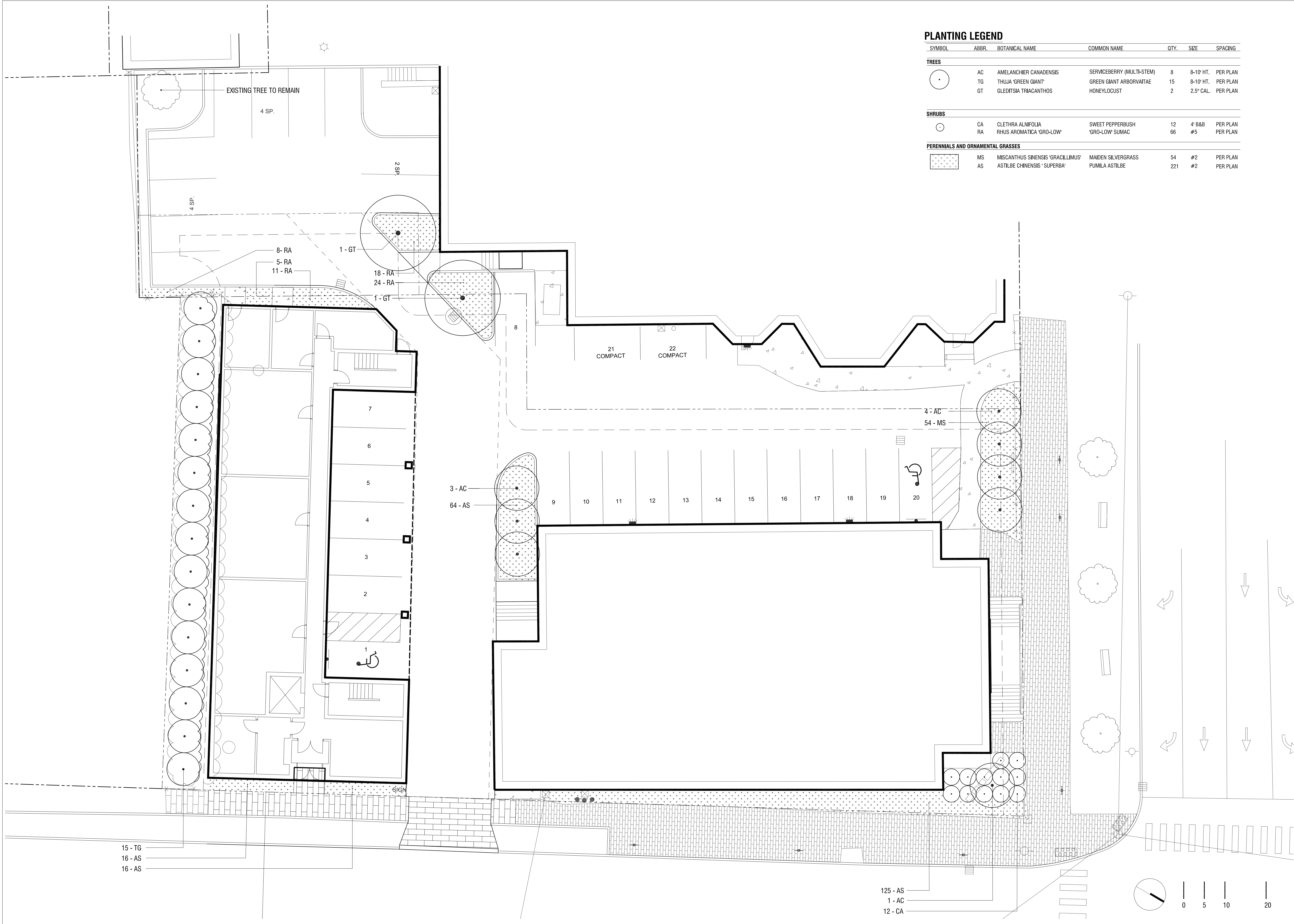
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DESIGNED: ARF

JOB NO: 1824

FILE: 1824-BASE.DWG

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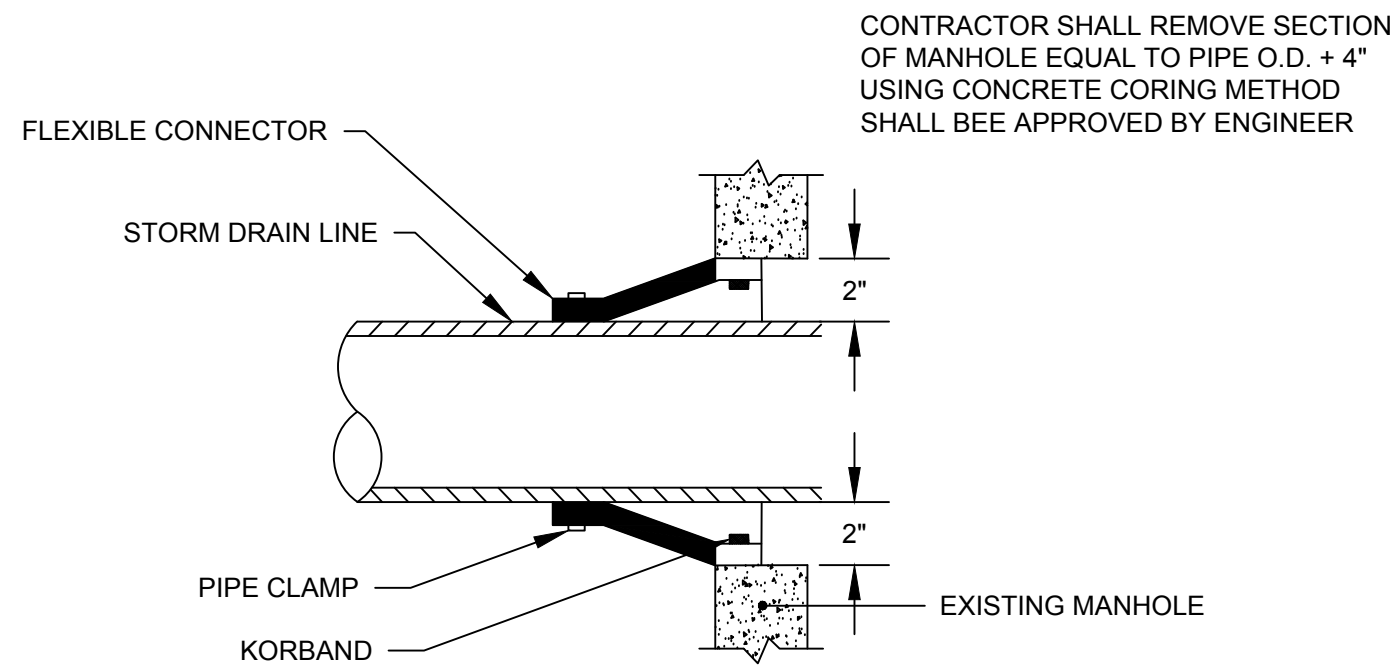


PLANTING LEGEND

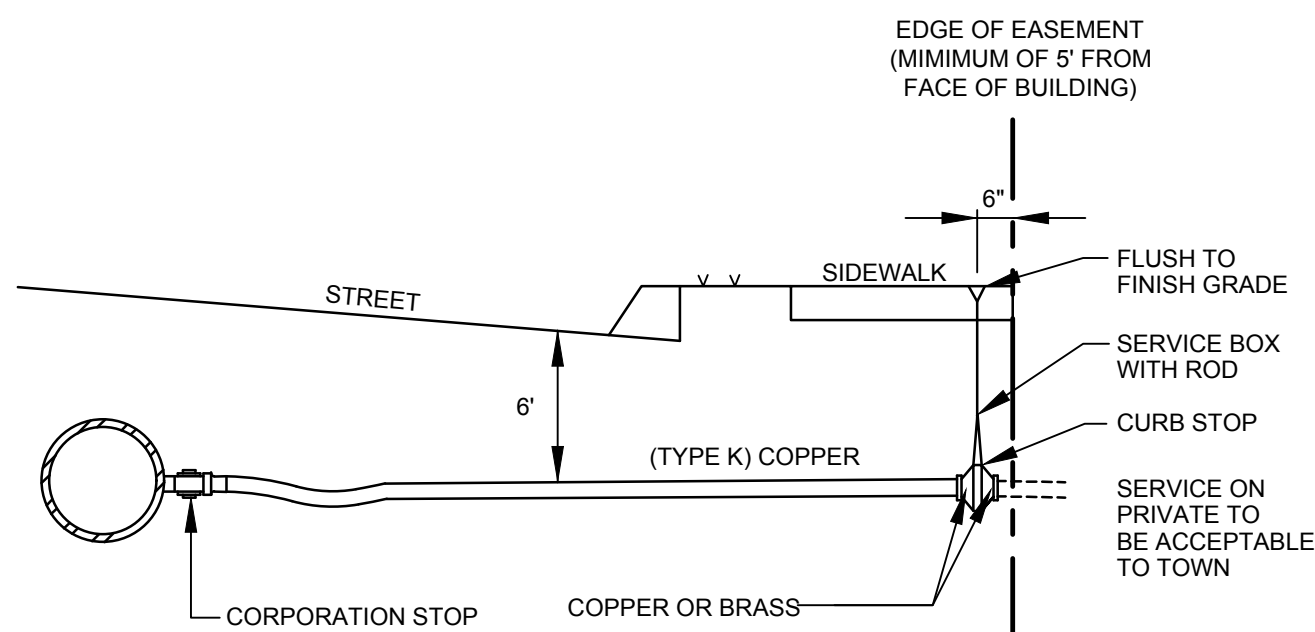
SYMBOL	ABBR.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
TREES						
	AC	AMELANCHIER CANADENSIS	SERVICEBERRY (MULTI-STEM)	8	8-10' HT.	PER PLAN
	TG	THUJA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	15	8-10' HT.	PER PLAN
	GT	GLEDITSIA TRIACANTHOS	HONEYLOCUST	2	2.5" CAL.	PER PLAN
SHRUBS						
	CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	12	4' B&B	PER PLAN
	RA	RHUS AROMATICA 'GRO-LOW'	'GRO-LOW' SUMAC	66	#5	PER PLAN
PERENNIALS AND ORNAMENTAL GRASSES						
	MS	MISCANTHUS SINENSIS 'GRACILLIMUS'	MAIDEN SILVERGRASS	54	#2	PER PLAN
	AS	ASTILBE CHINENSIS 'SUPERBA'	PUMILA ASTILBE	221	#2	PER PLAN

REVISIONS	DATE

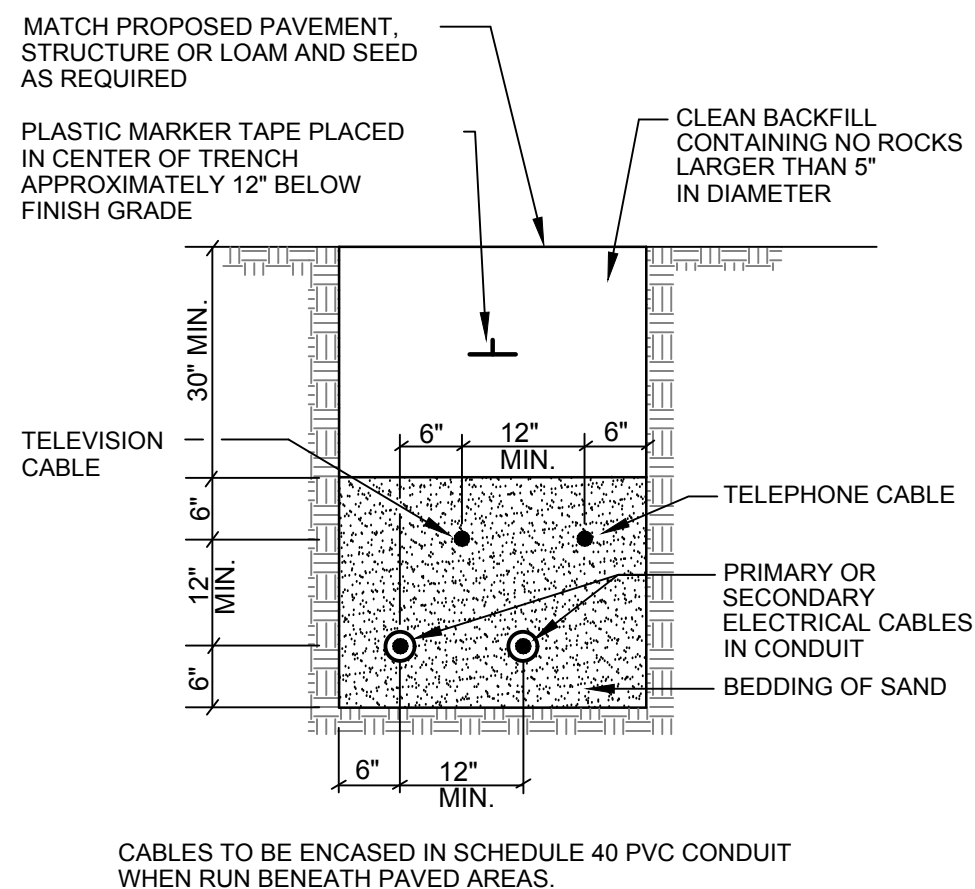
1. A FLEXIBLE PIPE TO MANHOLE CONNECTOR SHALL BE EMPLOYED IN THE CONNECTION OF ALL PIPE TO MANHOLE JUNCTIONS.
2. THE CONNECTOR SHALL BE KOR-N-SEAL AS MANUFACTURED BY NPC SYSTEMS, INC., OF MILFORD, NH OR EQUAL.
3. THE CONNECTOR SHALL BE THE SOLE ELEMENT RELIED ON TO ASSURE A FLEXIBLE WATERIGHT SEAL OF THE PIPE TO MANHOLE. NO ADHESIVES OR LUPRICANTS SHALL BE EMPLOYED IN THE INSTALLATION OF THE CONNECTORS TO THE MANHOLE. THE RUBBER FOR THE CONNECTOR SHALL COMPLY TO ASTM C923 AND CONSIST OF EPDM AND ELASTOMERS KNOWN TO BE RESISTANT TO OZONE, WEATHER ELEMENTS, CHEMICALS, INCLUDING ACIDS, ALKALIS, ANIMAL AND VEGETABLE FATS, OILS AND PETROLEUM PRODUCTS FROM SPILLS.
4. ALL STAINLESS STEEL ELEMENTS OF THE CONNECTOR SHALL BE TOTALLY NON-MAGNETIC SERIES 316 STAINLESS, EXCLUDING THE WORM SCREW USED FOR TIGHTENING THE STEEL BAND SHALL BE TORQUED BY A BREAK-AWAY TORQUE WRENCH AVAILABLE FROM THE PRECAST MANHOLE SUPPLIER, AND SET AT 60/70 IN./LBS.
5. THE CONNECTOR SHALL BE INSTALLED IN THE MANHOLE WALL BY ACTIVATING THE EXPANDING MECHANISM IN STRICT ACCORDANCE WITH THE RECOMMENDATION OF THE CONNECTOR MANUFACTURER.
6. THE CONNECTOR SHALL BE OF A SIZE SPECIFICALLY DESIGNED FOR THE PIPE MATERIAL AND SIZE BEING UTILIZED ON THE PROJECT.
7. ALL CONNECTORS WHICH ARE CAPPED AWAITING PIPE INSTALLATION AT A LATER DATE MUST BE RESTRAINED.



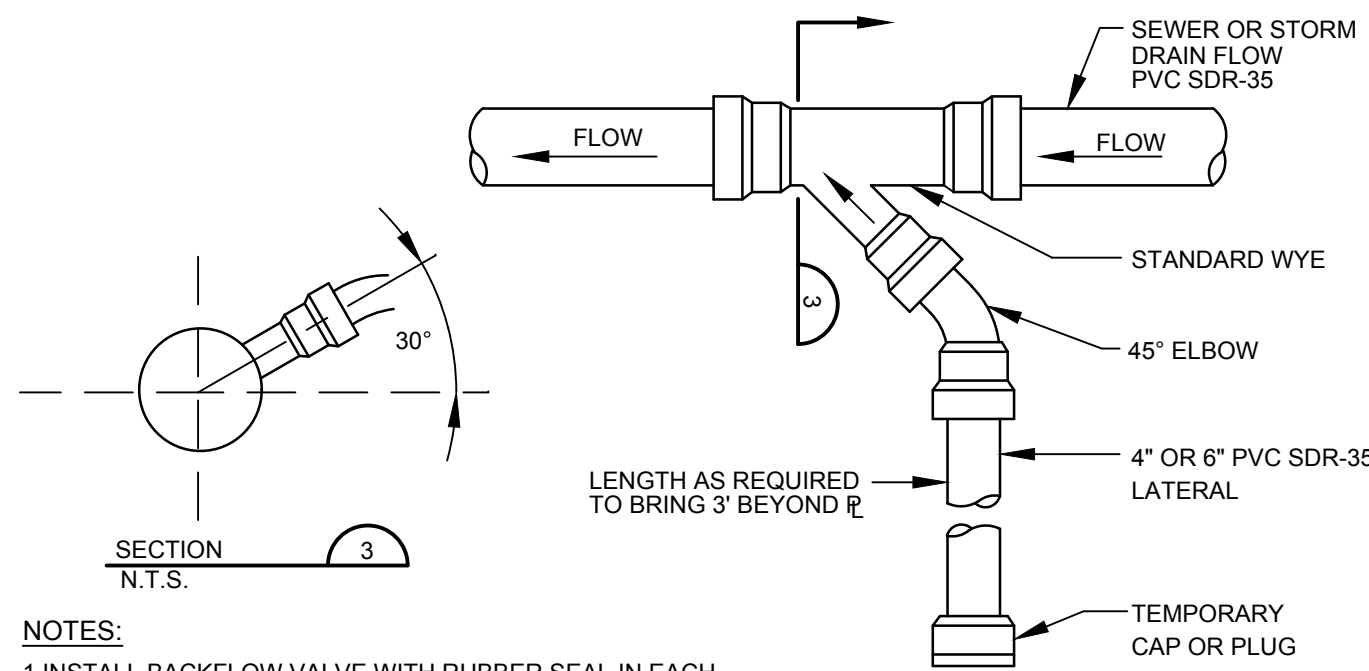
**CORE AND SEAL CONNECTION TO
EXISTING STORM DRAIN MANHOLE**
NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION



TYPICAL UNDERGROUND CABLE INSTALLATION



SEWER / ROOF DRAIN
SERVICE CONNECTION
NOT TO SCALE

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST ADDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINS INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. **FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE, AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON
VEHICLE LOADING CONDITIONS

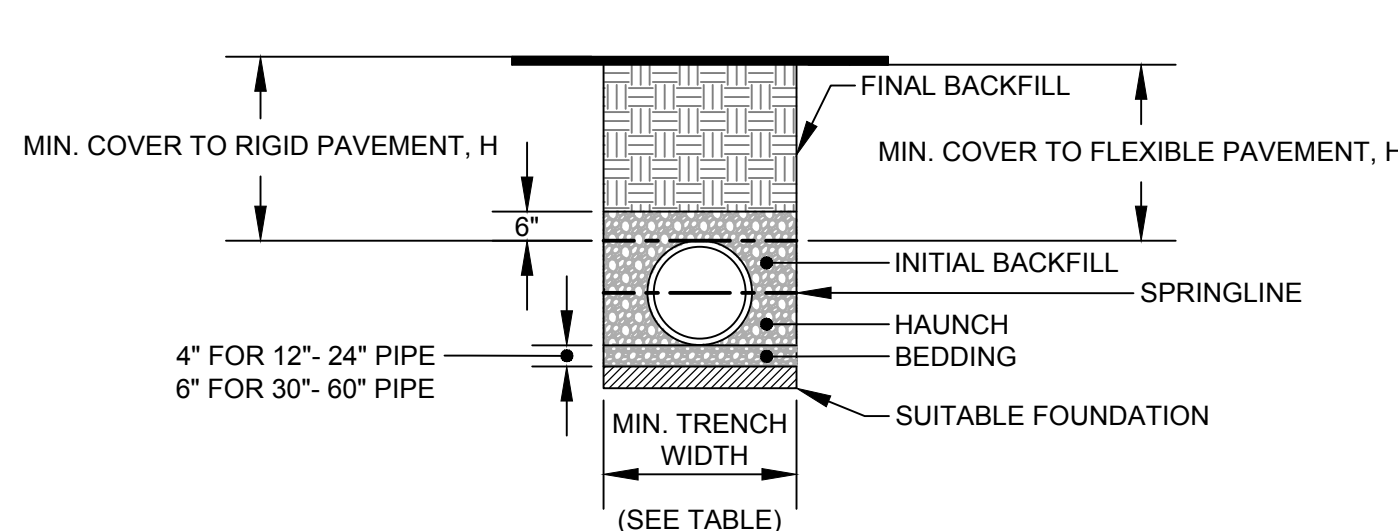
SURFACE LIVE LOADING CONDITION		
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

COVER OVER PIPE	INSULATION THICKNESS
12" - 24"	3"
24" - 36"	2"
36" - 48"	1"
48"+	NONE

TYPICAL TRENCH DETAIL



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

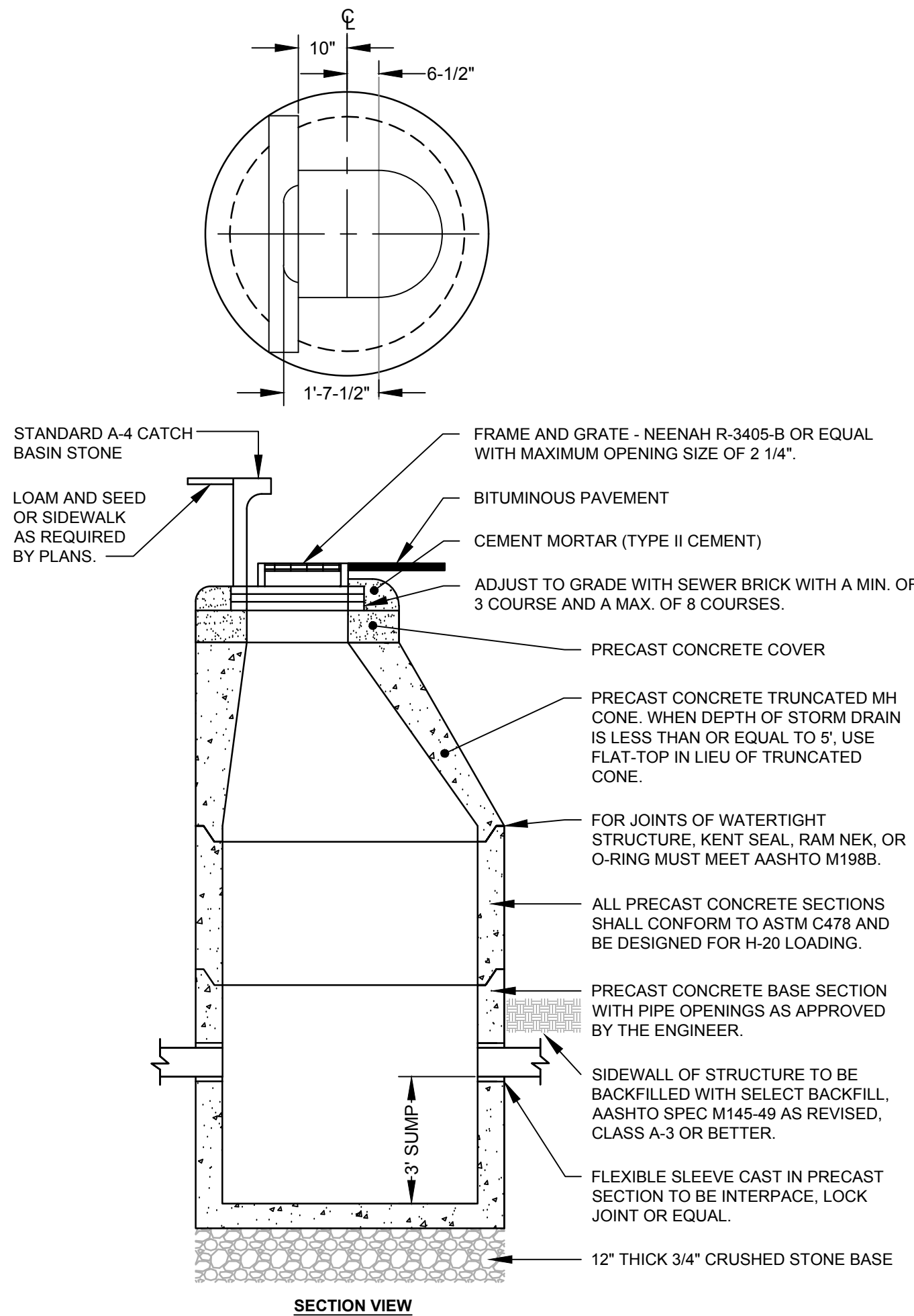
MINIMUM RECOMMENDED COVER BASED ON
VEHICLE LOADING CONDITIONS

SURFACE LIVE LOADING CONDITION		
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

7. INSULATION: RIGID INSULATION SHALL BE PROVIDED FOR PIPES WITH LESS THAN 4' OF COVER IN ACCORDANCE WITH THE FOLLOWING TABLE:

COVER OVER PIPE	INSULATION THICKNESS
12" - 24"	3"
24" - 36"	2"
36" - 48"	1"
48"+	NONE



CATCH BASIN - CURB INLET
NOT TO SCALE

DATE: 6-5-19
P.E.: MICHAEL E. TADEMA-WIELANDT

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REVISIONS

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PERMIT DRAWING
NOT FOR CONSTRUCTION

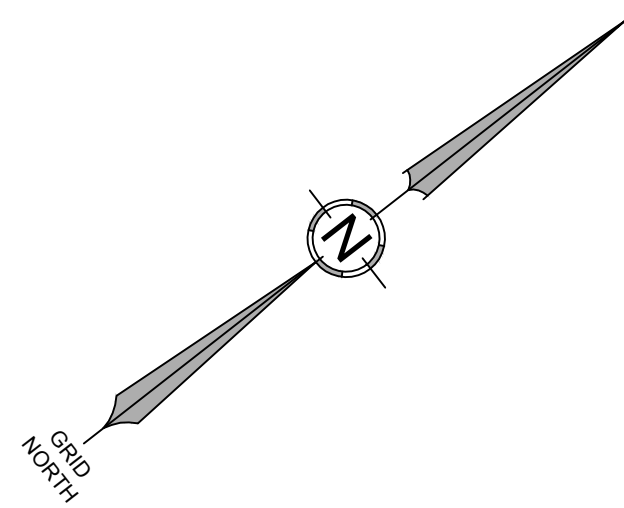
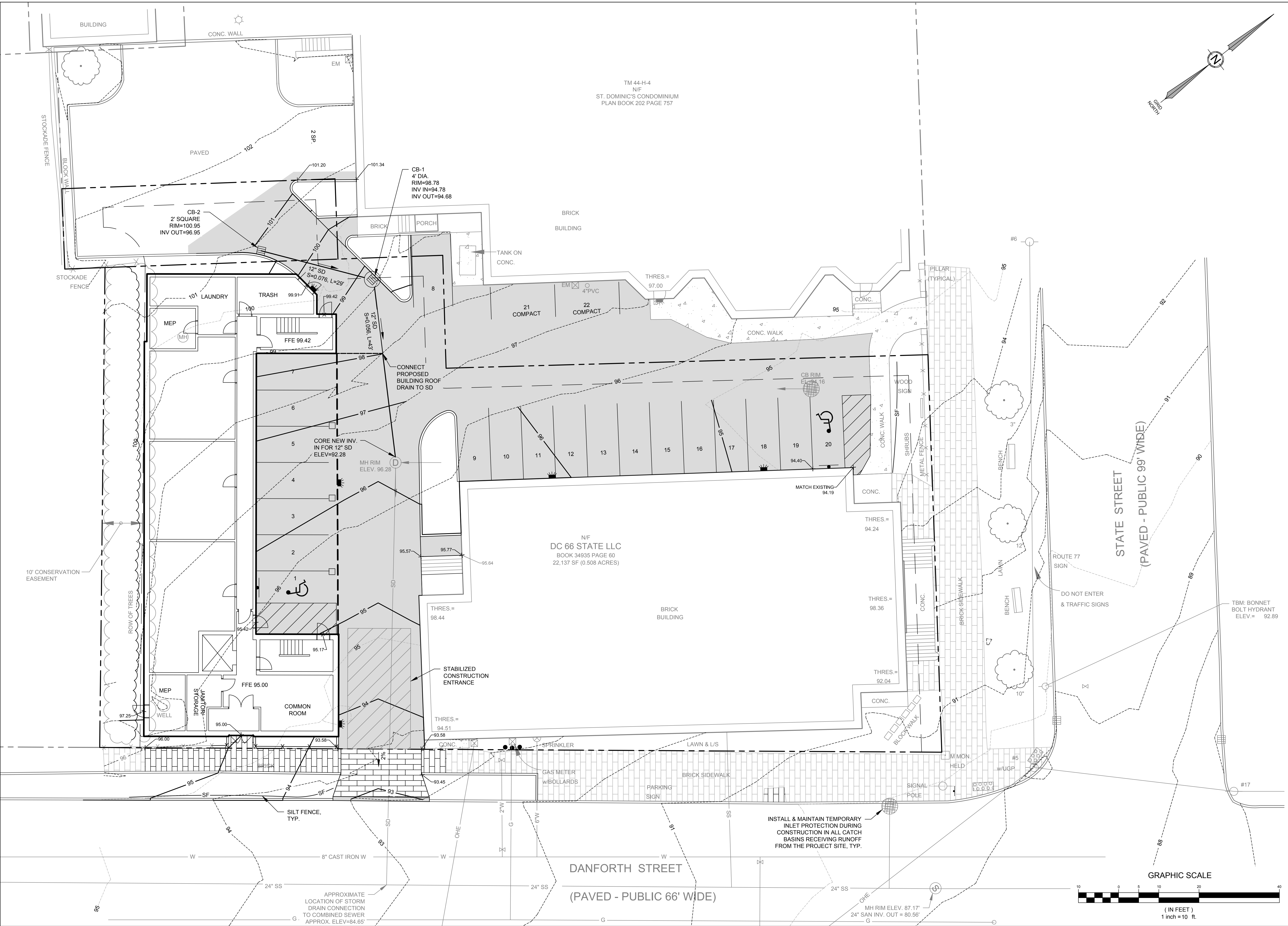
PROJECT: PROPOSED BUILDING AND BUILDING RENOVATION
66 STATE STREET
PORTLAND, ME 04101

SHEET TITLE:
UTILITY & DRAINAGE DETAILS

CLIENT:
DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	6/3/2019
SCALE:	N.T.S.
DESIGNED:	ARF
JOB NO:	1824
FILE:	1824-D.DWG
SHEET	661

SHEET C-6.1



STATE OF MAINE

MICHAEL E. TADEMA-WIELANDT

REGISTERED PROFESSIONAL ENGINEER

DATE: 7-9-19

P.E.: MICHAEL E. TADEMA-WIELANDT

NO.	DATE	REVISIONS
1	7-9-2019	REVISED PER CITY STAFF COMMENTS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
PROPOSED BUILDING AND BUILDING RENOVATION
66 STATE STREET
PORTLAND, ME 04101

SHEET TITLE:
GRADING, DRAINAGE & EROSION CONTROL PLAN

CLIENT:
DC 66 STATE LLC
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE: 6/3/2019

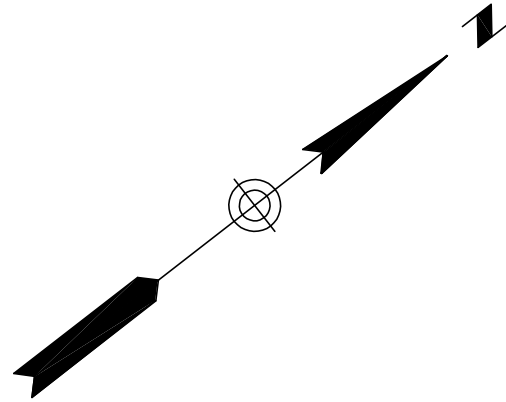
SCALE: 1"=10'

DESIGNED: ARF

JOB NO: 1824

FILE: 1824-B.DWG

SHEET C-4.0



GRAY STREET
(PAVED - PUBLIC 45' WIDE)

WINTER STREET
(PAVED - PUBLIC 40' WIDE)

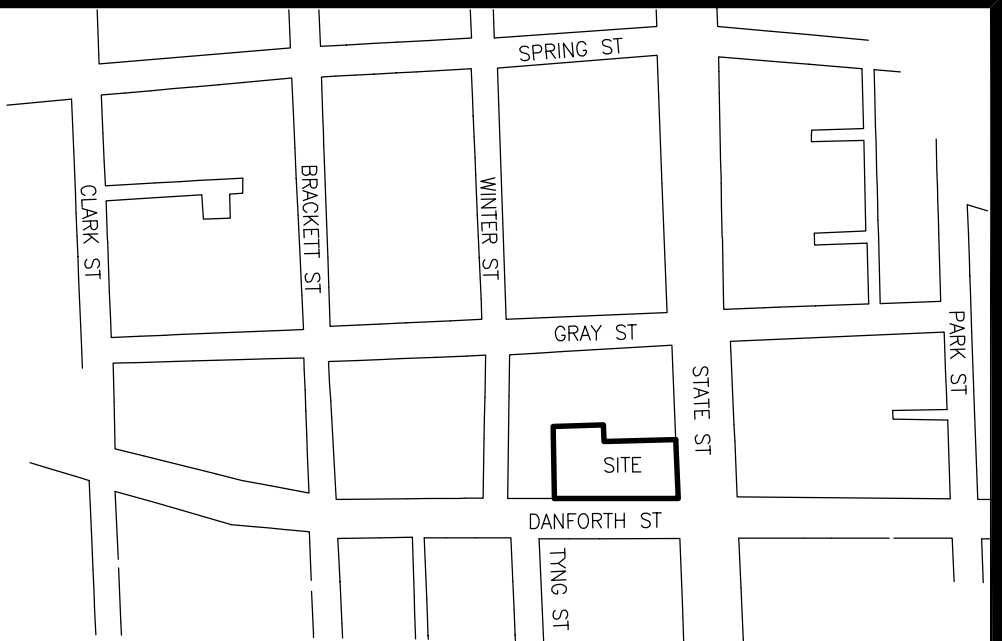
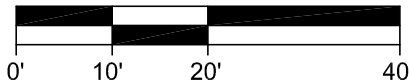
STATE STREET
(PAVED - PUBLIC 89' WIDE)

DANFORTH STREET
(PAVED - PUBLIC 66' WIDE)

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.

SCALE: 1" = 20'



LOCATION MAP

N.T.S.

LEGEND

●	IRON PIPE OR ROD FOUND	—X—X—	FENCE
■	MONUMENT FOUND	—	CURB
○	UTILITY POLE	—OHW—	OVERHEAD WIRES
○	MANHOLE	—W—	WATER LINE
⊗	ELECTRIC/GAS METER	—G—	GAS LINE
⊗	SIGN	—T—	TELEPHONE
⊗	CATCH BASIN	—SD—	STORM DRAIN
⊗	HYDRANT	—SS—	SANITARY SEWER
⊗	WATER VALVE OR SHUTOFF	—35—	1' CONTOUR
⊗	GAS VALVE	—IPF/IRF—	IRON PIPE OR ROD FOUND
⊗	LIGHT POLE	N/F	NOW OR FORMERLY
⊗	DECIDUOUS TREE	000/000	DEED BOOK / PAGE
		L/S	LANDSCAPED AREA
		CONC.	CONCRETE

PLAN REFERENCES

- CITY OF PORTLAND ENGINEERING DEPARTMENT STREET PLANS 77, 82, 104, AND 184.
- "LAND TITLE SURVEY OF AMITY CENTER LOT, 66 STATE STREET, PORTLAND, MAINE MADE FOR THE ALLIANCE FOR THE MENTALLY ILL OF GREATER PORTLAND, 12 CEDAR ST., PORTLAND, MAINE, STANDARD BOUNDARY SURVEY OF THE ST. DOMINIC'S CHURCH LOT. RECORD OWNER, THE ROMAN CATHOLIC BISHOP OF PORTLAND, A CORPORATION SOLE, 510 OCEAN AVENUE, PORTLAND, MAINE" AUGUST 22, 1991 REVISED JUNE 18, 1992 OWEN HASKELL, INC. JOB #91132P RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 192, PAGE 137.
- "CONDOMINIUM PLAT, 50 GRAY STREET CONDOMINIUM, #50 GRAY STREET, PORTLAND, MAINE MADE FOR RECORD OWNERS ERIK & CAITLIN MUSHIAL" MAY 7, 2007 OWEN HASKELL, INC. JOB #2006-155P RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 207, PAGE 247.
- "CONDOMINIUM PLAT ST. DOMINIC'S CONDOMINIUM, DECLARANT: ST. DOMINIC'S HOUSING ASSOCIATES LIMITED PARTNERSHIP AND IRISH HERITAGE CENTER, PORTLAND, MAINE" DECEMBER 17, 2002 BY TFH ARCHITECTS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 202, PAGE 757.

GENERAL NOTES

- OWNER OF RECORD: CATHOLIC CHARITIES OF MAINE
P.O. BOX 10660, PORTLAND, MAINE
C.C.R.D. BOOK 11522 PAGE 123
- LOCUS IS SHOWN AS PROPERTY MAP 44 BLOCK H LOT 1.
- BEARINGS ARE GRID NORTH AS BASED ON CITY MONUMENT T124-25-1237 AT CORNER OF DANFORTH AND WINTER STREETS AND T124-25-1238 AT SOUTHERN CORNER OF DANFORTH AND STATE STREETS. ELEVATIONS ARE ON CITY DATUM.

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, EXCEPT NO MARKERS SET TO DATE.

JOHN C. SCHWANDA, PLS #1252

DATE

Boundary & Topographic Survey
At
66 State Street and Danforth Street
Portland, Maine
Made for
Archetype PA
48 Union Wharf, Portland, Maine



OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: JCS / JLW	DATE: JUNE 14, 2018	JOB NO. 2018-102P
CHECKED BY: JCS	SCALE: 1" = 20'	DRWG. NO. 1

CONSTRUCTION MANAGEMENT PLAN

Project:

66 State Street
Portland, Maine 04101

Applicant:

DC 66 State LLC
100 Commercial Street, Suite 141
Portland, Maine 04101

Prepared By:

Terradyn Consultants, LLC
565 Congress Street, Suite 201

Construction Manager:

To be determined

A. Construction Management Principles

The following narrative provides an overview of the construction management principles that the Applicant has identified to minimize impacts from the construction of 66 State Street, such as noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding buildings and communities.

B. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, the Applicant and Contractor shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General requirements and enforcement of Portland's Land Use Code.

Other permits, as applicable, include

- 1. Street Opening and Street Occupancy Permits:** Construction activity in the public right-of-way are controlled by Chapter 25 and sewer and stormwater system connections are controlled by Chapters 24 and 32 of the Land Use Code. All required permits shall be obtained through the Department of Public Works and the requests shall conform with the approved construction management plan.

C. Construction Administration and Communication

The Applicant and Contractor will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager 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.

A Construction Manager has not been selected for the project yet. Once selected, a Contact Person, who will be available 24 hours in the event of an emergency, will be identified and the City shall be notified:

CONTACT PERSON:

To be determined

Construction Signage shall be posted at the site with Contact Information for the Contractor. Construction site signage shall be removed at project completion.

D. Construction Schedule

1. The contractor shall submit a schedule or time line for the construction project, including any Phasing, prior to construction. The project is anticipated to start construction in October 2019.
2. Hours of Construction: Construction may occur during the daytime hours as defined in Section 17-18 of the City Code (Construction Activities) and Section 25-129 of the City Code (Noise, dust and debris).
3. Extended Hours or Night Work: Pursuant to Section 17-18, this section does not apply to emergency utility work or "Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority."
4. Material Deliveries: Delivery of materials shall take place during the Hours of Construction listed above and shall be stored on the project site in the locations noted on the Construction Management Plan (Sheet C-2.3).

E. Security & Public Safety

1. The Contractor shall erect the temporary barriers and access gates shown on the Construction Management Plan (Sheet C-2.3) with the intent of separating pedestrian and vehicle circulation from the construction site.
2. The Applicant or Contractor shall purchase and install a Knox padlock from the Portland Fire Department to allow access by the Portland Fire Department at the primary access gate.
3. 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.*

4. Fire Safety Program. An overall construction of 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
5. Any temporary security lighting fixtures shall feature full cutoff optics to reduce light trespass onto abutting properties.

F. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: Construction activity in the public right-of-way is controlled by Chapter 25 Article VII of the City Code of Ordinances. Required licenses and permits, restrictions on activity, and fees & area are outlined in that Chapter. Rules and Regulations for Excavation Activity are available through the Street Opening Clerk at the Department of Public Works. At no time can construction activity including delivery vehicles close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.
2. Lane Closures: Underground electric, sewer and water system connections within Danforth Street are expected to result in temporary closure of one lane of traffic in Danforth Street for up to four days. All work resulting in lane closures shall be scheduled and sequenced to minimize the duration of street occupancy.
3. Public Sidewalk Closures: The Danforth Street sidewalk along the project site's Danforth Street frontage will be partially reconstructed as part of the proposed project. This section of sidewalk will be closed while being reconstructed and for the duration of the proposed building construction. Temporary pedestrian signage will direct pedestrians to cross Danforth Street at existing crosswalks and use the sidewalk on the opposite side of Danforth Street, as shown on the Construction Management Plan. No other existing sidewalks are proposed to be impacted by the project.

4. 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 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.
5. Work within City Right of Way: 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.

Construction operations shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, the Contractor may be allowed to close a street and/or detour a mode of traffic when absolutely necessary for safety. The Contractor 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 are an obstruction to bicycles or pedestrians.
- In extreme situations, flaggers may be required.
- Police detail is required at lighted intersections and may be requested by the City's transportation engineer or his designee.

All existing modes of travel in 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 out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works.

- Traffic control 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 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.

G. Site Management and Controls

The contractor shall be responsible for maintaining the site in a safe condition and including the following:

1. A solid waste dumpster shall be located on site for the disposal of trash and debris.
2. The Danforth Street and State Street rights of way shall be swept regularly to control the tracking of mud onto adjacent public streets.
3. Dust controls: The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris.
4. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code and Section 25-129 on Noise, dust and debris.
5. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - 1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
 - 2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or site lines with the piles of snow.
 - 3) Clear all walks & ramps with the work zone
 - 4) Sand or Salt as needed
 - 5) Clear all basin or drainage to help snow melt
 - 6) This would include Monday-Friday Sat/Sunday/Holidays

H. Erosion Control and Preservation of Trees

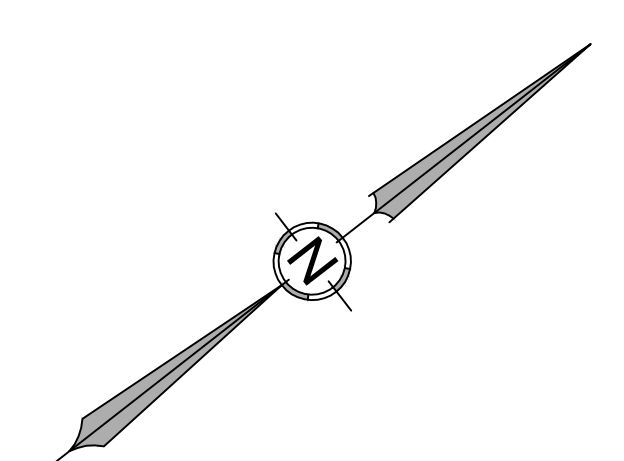
1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after significant storm events, and maintain any installed temporary or permanent stormwater management systems in 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 or the U.S. Environmental Protection Agency upon request.
2. The storage of materials shall be located in the areas depicted on the Construction Management Plan (Sheet C-2.2).

I. Construction Staging and Deliveries

1. A location for material storage and lay down is shown on the Construction Management Plan. Additional areas may be utilized as available as long as they do not interfere with material deliveries.

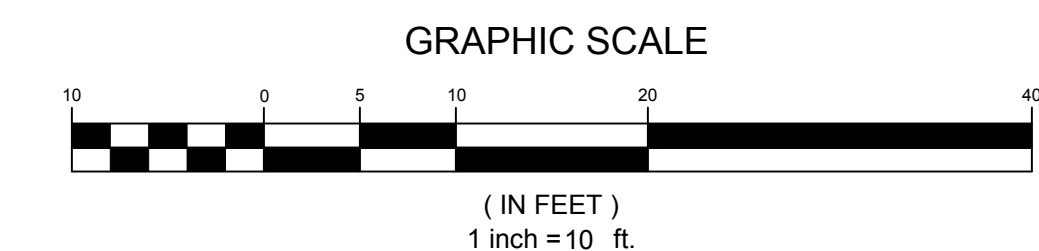
J. Parking During Construction

1. Construction Parking: Construction workers shall utilize on-site parking as shown on the Construction Management Plan. Additional off-site off-street parking shall be utilized if necessary. Construction workers shall abide by all posted on-street parking restrictions.



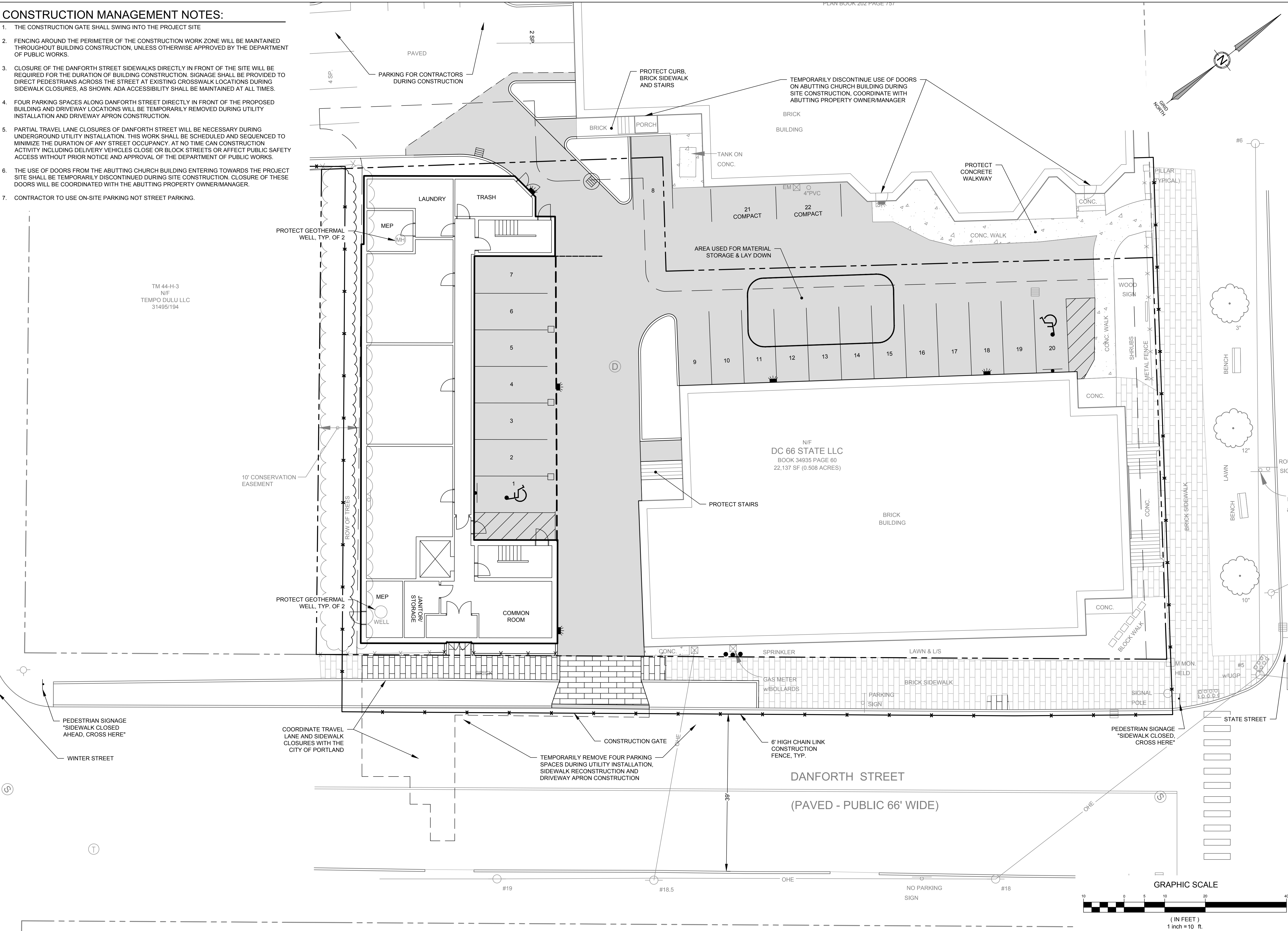
NOTES:

1. LIGHTING PLAN PREPARED USING DESIGN MASTER PHOTOMETRICS SOFTWARE
2. ONLY PROPOSED LIGHTING FIXTURES ARE MODELED
3. DEPRECIATION FACTOR FOR LED IS 0.90

[illegible]

CONSTRUCTION MANAGEMENT NOTES:

1. THE CONSTRUCTION GATE SHALL SWING INTO THE PROJECT SITE
2. FENCING AROUND THE PERIMETER OF THE CONSTRUCTION WORK ZONE WILL BE MAINTAINED THROUGHOUT BUILDING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
3. CLOSURE OF THE DANFORTH STREET SIDEWALKS DIRECTLY IN FRONT OF THE SITE WILL BE REQUIRED FOR THE DURATION OF BUILDING CONSTRUCTION. SIGNAGE SHALL BE PROVIDED TO DIRECT PEDESTRIANS ACROSS THE STREET AT EXISTING CROSSWALK LOCATIONS DURING SIDEWALK CLOSURES, AS SHOWN. ADA ACCESSIBILITY SHALL BE MAINTAINED AT ALL TIMES.
4. FOUR PARKING SPACES ALONG DANFORTH STREET DIRECTLY IN FRONT OF THE PROPOSED BUILDING AND DRIVEWAY LOCATIONS WILL BE TEMPORARILY REMOVED DURING UTILITY INSTALLATION AND DRIVEWAY APRON CONSTRUCTION.
5. PARTIAL TRAVEL LANE CLOSURES OF DANFORTH STREET WILL BE NECESSARY DURING UNDERGROUND UTILITY INSTALLATION. THIS WORK SHALL BE SCHEDULED AND SEQUENCED TO MINIMIZE THE DURATION OF ANY STREET OCCUPANCY. AT NO TIME CAN CONSTRUCTION ACTIVITY INCLUDING DELIVERY VEHICLES CLOSE OR BLOCK STREETS OR AFFECT PUBLIC SAFETY ACCESS WITHOUT PRIOR NOTICE AND APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.
6. THE USE OF DOORS FROM THE ABUTTING CHURCH BUILDING ENTERING TOWARDS THE PROJECT SITE SHALL BE TEMPORARILY DISCONTINUED DURING SITE CONSTRUCTION. CLOSURE OF THESE DOORS WILL BE COORDINATED WITH THE ABUTTING PROPERTY OWNER/MANAGER.
7. CONTRACTOR TO USE ON-SITE PARKING NOT STREET PARKING.



STATE OF MAINE	
MICHAEL E. TADEMA-WIELANDT	
LICENSED PROFESSIONAL ENGINEER	
DATE: 6-5-19	P.E.: MICHAEL E. TADEMA-WIELANDT
APPROVED BY:	
REVISIONS	
NO.	DATE
565 CONGRESS STREET SUITE 201 PORTLAND, ME 04102	
OFFICE: (207) 926-5111 FAX: (207) 221-1317 www.terradynconsultants.com	
TERRADYN CONSULTANTS, LLC	
Civil Engineering Land Planning Stormwater Design Environmental Permitting	
PERMIT DRAWING NOT FOR CONSTRUCTION	
PROJECT: PROPOSED BUILDING AND BUILDING RENOVATION 66 STATE STREET PORTLAND, ME 04101	
SHEET TITLE: CONSTRUCTION MANAGEMENT PLAN	
CLIENT: DC 66 STATE LLC 100 COMMERCIAL STREET, SUITE 414 PORTLAND, MAINE 04101	
DATE:	6/3/2019
SCALE:	1"=10'
DESIGNED:	ARF
JOB NO:	1824
FILE:	1824-B.DWG
SHEET	C-2.2



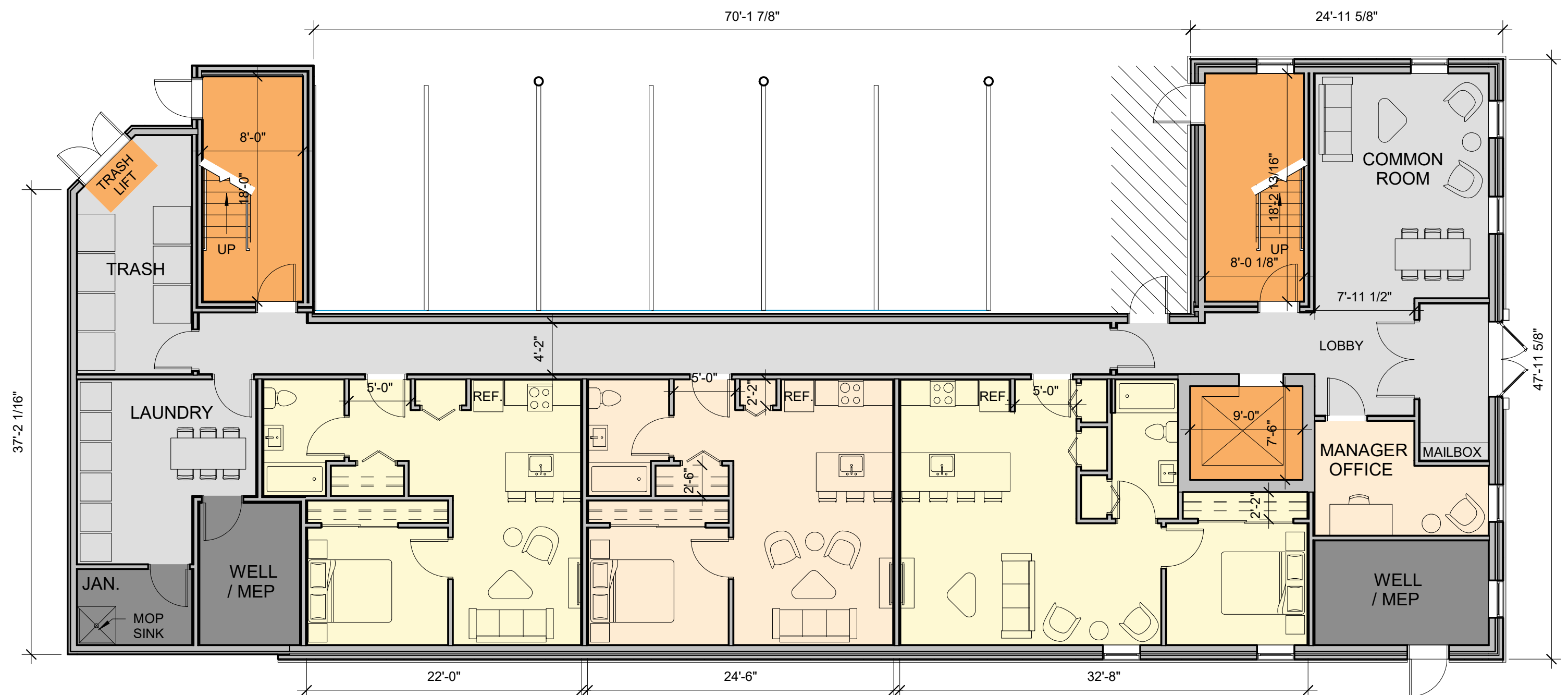
3 | 4TH FLOOR
1/8" = 1'-0"



2 | 2ND FLOORS
1/8" = 1'-0"



4 | 3RD FLOOR
1/8" = 1'-0"



1 | 1ST FLOOR
1/8" = 1'-0"

Owner

Consultant:

Architect:
ARCHETYPE
architects
48 Union Wharf Portland, Maine 04101
(207) 772-0022 ARCHETYPE@ARCHETYPEPA.COM

Project:
66 STATE STREET
NEW BUILDING

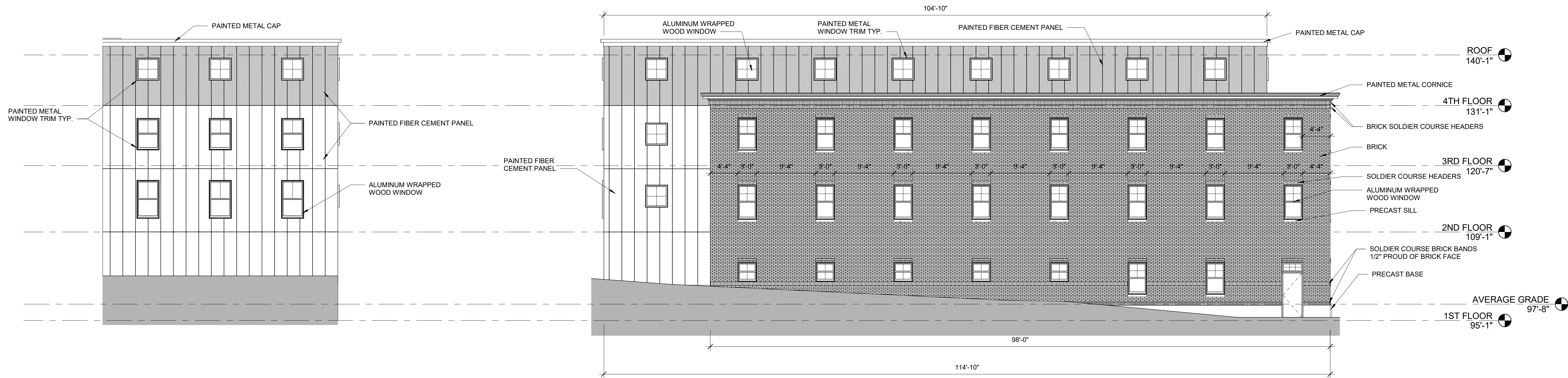
PORTLAND, ME 04101

Revisions:

Date: 6 JUNE 2019
Scale: 1/8" = 1'-0"

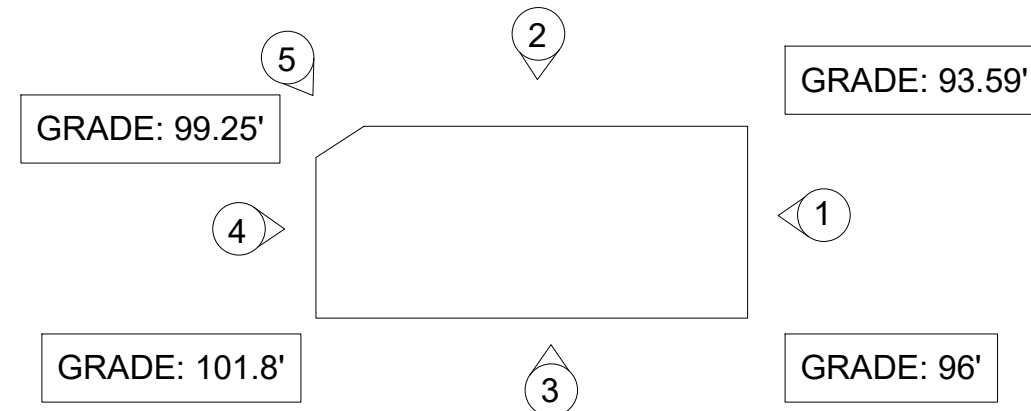
FLOOR PLANS

A1.01



4 REAR ELEVATION
1/8" = 1'-0"

3 WEST ELEVATION
1/8" = 1'-0"



GENERAL NOTE:
1. DARKEST BRICKS CULLED FROM OLD PORT BLEND TO BE USED FOR ALL SOLDIER COURSES.

GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: GRADE TAKEN AT THE FOUR (4) BUILDING CORNERS DIVIDED BY FOUR (4) - $96.00' + 93.59' + 101.8' + 99.25' = 390.64' / 4 = 97'8"$
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = $43' - 9 \frac{3}{4}"$



1 DANFORTH ST ELEVATION
1/8" = 1'-0"

2 EAST ELEVATION
1/8" = 1'-0"

5 REAR CORNER ELEVATION
1/8" = 1'-0"

Prepared For:		Owner	
Consultant:		Address City, State	
Architect:		ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-0022 ARCHETYPE@ARCHETYPEPA.COM	
Project:		66 STATE STREET NEW BUILDING PORTLAND, ME 04101	
Revisions:		Date: 6 JUNE 2019 Scale: 1/8" = 1'-0"	
Building Elevations		A2.01	







PLANNING BOARD REPORT PORTLAND, MAINE

Technical Manual: Public Safety Standards Update
City of Portland, Applicant

Submitted to Portland Planning Board Public Hearing Date: July 23, 2019	Prepared by: Christian Roadman Date: July 19, 2019
--	---

The City of Portland seeks to update Fire Department-related standards in its Technical Manual to reflect the current context of life safety standards, best practices, and City conditions. The proposed changes pertain to section 3.2 Fire Hydrant Standards, 3.3 Single- and Two-Family Residential Development, and 3.4 Site Access Standards. Content changes were drafted by Division Chief Mike Thompson and are detailed below, illustrated in **Attachment 1**, and explained in **Attachment 2**.

I. Proposed Changes to Section 3.2 Fire Hydrant Standards

The City seeks three changes to this section: modification to 3.2.1 and 3.2.2, and addition of a proposed 3.2.4.

1. Section 3.2.1: As currently adopted, 3.2.1 reads:

All development constructed within the limits of Fire Districts 1 and 2 (as shown in Figure III-1) shall have a hydrant within five hundred (500') feet of all structures. Fire District 1 denotes the portion of the city with the highest density requiring increased Fire Department response. Fire District Number 2 denotes concentrations of industrial uses which may have hazardous chemicals on site.

As proposed, 3.2.1 would read:

All development constructed within the limits of the City of Portland shall have a hydrant within five hundred (500') feet of all structures.

This change is suggested because there is no Figure III-1 in the Technical Manual, and also because development in the City in all fire districts has resulted in greater density that merits this change city-wide. Additionally, modern construction methods have resulted in greater fire load, increased fire intensity, and early failure of structural components, making proximity to fire hydrants critical in all parts of the city.

2. Section 3.2.2: As currently adopted, 3.2.2 reads:

All hydrants, private and public, shall comply with city code Chapter 10 and the Portland Water Districts standards

As proposed, 3.2.2 would read:

All hydrants, private and public, shall comply with city code Chapter 10 and Portland Water District standards.

This change is suggested to simplify and correct the section language.

3. **Section 3.2.4:** Currently, 3.2.4 does not exist. As proposed, 3.2.4 would read:
A 6 ft. clear space shall be maintained around the circumference of fire hydrants, private or public, except as otherwise required or approved.

This change is suggested to ensure Technical Manual consistency with relevant Portland Water District standards.

II. Proposed Changes to Section 3.3 Single- and Two-Family Residential Development

The Fire Department seeks one change to this section, the only component of which is numbered 3.3.3. In conjunction with the Fire Department's proposed substantive changes, planning staff recommend renumbering 3.3.3 to 3.3.1, as it is the first and only text in its portion of the document.

1. **Section 3.3.1:** As currently adopted, 3.3.3 reads:
As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)

As proposed, the renumbered Section 3.3.1 would read:

As of September 16, 2010 all new construction of one- and two-family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2018 ed.)

This proposed change would update the referenced National Fire Protection Association (NFPA) edition. The 2018 edition of NFPA 1 Fire Code and NFPA 101 Life Safety Code are being prepared for adoption by the City Council.

III. Proposed Changes to Section 3.4 Site Access Standards

The City seeks three changes to this section: modification to 3.4.6, renumbering of 3.4.7 to 3.4.8, and addition of new language into 3.4.7.

1. **Section 3.4.6:** As currently adopted, 3.4.6 reads:
Elevators shall be sized to accommodate an 80 x 24 inch stretcher.

As proposed, 3.4.6 would read:

Elevators shall be sized to accommodate an 84 x 24 inch stretcher.

This change is suggested to make the Technical Manual standard consistent with the International Building Code and modern ambulance stretchers that do not fit in an 80 inch elevator.

2. **Section 3.4.7:** As currently adopted, 3.4.7 reads:
All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

As proposed, the above language would be renumbered as 3.4.8. Section 3.4.7 would be replaced with the following language:

Street name and street numbering shall be determined during development / subdivision review and shall comply with Portland's 911 numbering system.

These changes are proposed to ensure that City departments manage street names and numbers for private developments, to provide consistency with the State of Maine E911 system, and to maintain a logical flow of the Technical Manual document.

IV. Staff Analysis

Section 14-498 of the city's land use code requires that, in order for the Planning Board to approve or amend technical and design standards, such standards should be consistent with the provisions of the land use code, necessary and reasonable, and "in accord with sound engineering practice." The Fire Department has provided guidance that all of these standards are met.

V. Motions for the Board to Consider

On the basis of the material provided in this report, a review of the applicable policies, and other information presented at the July 23, 2019 public hearing, the Planning Board finds that:

1. The proposed revisions to the City of Portland Technical Manual, Section 3 Public Safety Standards [**are or are not**] consistent with the requirements of Section 14-498 Technical and Design Standards and other applicable provisions of the land use code and [**approves, approves with conditions, or does not approve**] adoption of the proposed technical standards.

Attachments

1. Fire Department-Proposed Technical Manual Content Changes
2. Description of Fire Department-Proposed Technical Manual Content Changes
3. City of Portland Technical Manual Section 3 Public Safety Standards

3. PUBLIC SAFETY STANDARDS

3.1. CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) PRINCIPLES

3.1.1. Natural Surveillance: Site plans shall be designed so that they create formal and informal natural surveillance networks on the site to increase on-site visibility and the safety of legitimate users and to deter potential offenders.

- a. Physical Features – The placement and design of physical features shall maximize visibility to allow for surveillance opportunities to and from site features such as entrances and exits, walkways, assembly areas, corridors, stairways, windows, parking lots, landscaping, fences or walls, and any other physical attributes.
- b. Lighting – The lighting of the site and building shall meet the City’s technical standards for site lighting, as detailed in Section 12 of this manual, and enable users to observe movement and activities on the site during the day and at night. Motion sensor activated lighting is permitted to provide adequate illumination of the site at night while still complying with applicable lighting curfew standards of Section 12 of the Technical Manual. Specifically, the lighting plan should satisfy the following criteria:
 - i. Create nighttime illumination of pedestrian travel paths and gathering areas, entrances and exits, and parking lots and garages by achieving the following:
 - Provide a clear view of an area from a distance and enable anyone moving in or immediately around it to be easily seen.
 - Deny potential hiding spaces adjacent to existing and proposed pedestrian travel routes.
 - Permit facial identification at a distance of at least 30’ and create the perception of being identified.
- c. Mechanical Surveillance Systems – If necessary, mechanical surveillance systems such as CCTV may be installed to monitor areas not easily observed such as parking lots and garages.

3.1.2. Access Management: Site plans shall be designed to provide visible pathways and to offer proper guidance for legitimate users to access the site and to discourage unauthorized use of the site.

- a. Orientation and Wayfinding – The site shall be designed so that the layout, features and/or signage clearly guide the movement of vehicles and pedestrians along safe and predictable paths both during the daytime and nighttime. Specifically, the site plan shall satisfy the following criteria:
 - Placement of signage, lighting fixtures, landmarks, and landscape design features shall clearly guide users to and from the facility.
 - Site features shall be designed to avoid the creation of entrapment zones that afford users no opportunity to escape or retreat from an approaching hazard.
- b. Mechanical Access Control – If necessary, mechanical access control systems may be implemented such as assigning personnel at key building entry points or establishing other procedures such as mechanical auto closing devices, key cards, gates and other locking devices.

3.1.3. **Territorial Reinforcement:** Proposed developments shall be designed to clearly delineate private, semi-private, and public space.

3.2. FIRE HYDRANT STANDARDS

3.2.1. All development constructed within the limits of (Fire Districts 1 and 2 (as shown in Figure III-1) the City of Portland shall have a hydrant within five hundred (500') feet of all structures. (Fire District Number 1 denotes the portion of the city with the highest density requiring increased Fire Department response. Fire District Number 2 denotes concentrations of industrial uses which may have hazardous chemicals on site.)

3.2.2. All hydrants, private and public, shall comply with city code Chapter 10 and (the) Portland Water District(s) standards.

3.2.3. Private hydrants shall be maintained by the property owner. A maintenance agreement, or other documentation if deemed acceptable by the Reviewing Authority, shall be required for all private hydrants. A follow-up will be conducted and a financial penalty will be levied for non-compliance. All compliances shall meet city code Chapter 10, which adopts by reference National Fire Protection Association (NFPA) #1 and #101.

3.2.4 A 6 ft. clear space shall be maintained around the circumference of fire hydrants, private or public, except as otherwise required or approved.

3.3. SINGLE AND TWO FAMILY RESIDENTIAL DEVELOPMENT

3.3.3. As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 (2009) 2018 ed.)

3.4. SITE ACCESS STANDARDS

- 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).
- 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.
- 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.
- 3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.
- 3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.
- 3.4.6. Elevators shall be sized to accommodate an (80) 84 x 24 inch stretcher.
- 3.4.7. Street name and street numbering shall be determined during development/subdivision review and shall comply with Portland's 911 numbering system.
- 3.4.8 All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

3.5. STANDARDS FOR EMERGENCY ACCESS LANES AND GATES

- 3.5.1. No inside turning radius shall be less than twenty-five (25') feet.
- 3.5.2. No outside turning radius shall be less than one hundred (100') feet.
- 3.5.3. New emergency access lanes shall be a minimum of sixteen (16') feet wide but may be required to be up to twenty (20') feet wide where one or more of the following conditions occur:
- The access is likely to be used by Fire Department ladder trucks to set up for buildings adjacent to the lane or;

Technical Manual
Proposed Changes to Section 3
June 13, 2019

Language in **Red** denotes language to be removed, and language in **Green** denotes new language.

- 3.2.1 There is no Figure III-1 in the technical manual, not sure if it exists.
Over the years, development has changed the landscape throughout the city, resulting in a density requiring this change. Modern construction methods have resulted in greater fire load, increased fire intensity, and early failure of structural components. The Portland Fire Department feels this change is necessary for effective fireground operations.
- 3.2.2 Just cleaning up the language.
- 3.2.4 This change is consistent with Portland Water District Standards.
- 3.3.3 Update the referenced NFPA edition. The 2018 edition of NFPA 1 Fire Code and NFPA 101 Life Safety Code are being prepared for adoption by the City Council.
- 3.4.6 This change is consistent with the current IBC code. Ambulance stretcher technology has resulted in larger stretchers that will not fit in an 80 inch elevator, which could have an adverse affect on patients.
- 3.4.7 This will prevent developers from self-naming and addressing of streets and properties that are inconsistent with the State of Maine E911 system.
- 3.4.8 Previously 3.4.7, moved to create a logical flow.

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- Construction Type.
- Impediments to the Structures.
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3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

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3.5.2. No outside turning radius shall be less than one hundred (100') feet.

3.5.3. New emergency access lanes shall be a minimum of sixteen (16') feet wide but may be required to be up to twenty (20') feet wide where one or more of the following conditions occur:

- The access is likely to be used by Fire Department ladder trucks to set up for buildings adjacent to the lane or;
- The access lane is likely to be used by Fire Department Engine companies to set up pumping operations to fight a fire at buildings adjacent to the lane.

- 3.5.4. Access lanes shall be engineered and maintained to support the weight of emergency vehicles during all weather conditions.
- 3.5.5. Appropriate “No Parking” signs shall be posted in accordance with instructions from the Fire Department having jurisdiction, and a method of enforcing such provisions shall be provided.
- 3.5.6. All gates shall be located a minimum of thirty (30') feet from the public right-of-way and shall open inward to the site.
- 3.5.7. Fire department personnel shall have ready access to locking mechanisms on any gate restricting access to a fire lane. Proposed changes to access shall be pre-approved by the Reviewing Authority.
- 3.5.8. The clear opening provided through all gates shall be two (2') feet wider than the traveled way.
- 3.5.9. Blockading of any emergency lane shall be done by gates which are secured by chain and padlock. Padlocks shall be a “Knox” lock.
- 3.5.10. Emergency lanes shall be maintained and made accessible for emergency use at all times. No parking of vehicles or other use that might obstruct the emergency access lane shall be permitted. An access maintenance agreement or other suitable document acceptable to the Reviewing Authority shall be required (please refer to attached model access maintenance agreement at the end of this section).
- 3.5.11. The use of automatic gates such as the “Click2enter” systems requires prior approval from the Reviewing Authority.
- 3.5.12. Reserved

3.6. SUBDIVISION STANDARDS

- 3.6.1. Subdivisions shall comply with the following minimum street access requirements:
- 1-34 units: A single access road.
 - 35-67 units: Two (2) access roads or a single access road and an emergency access lane.
 - 68 or more units: Two (2) access roads.
- 3.6.2. Where residential units are provided with an approved sprinkler system designed to NFPA #13D, the following minimum street access requirements shall apply:
- 1-67 units: One (1) access road.
 - 68-99 units: One (1) access road and an emergency access lane.
 - 100 units or more: Two (2) access roads.

3.6.3. All planned building groups shall meet the requirements of NFPA 1141.

3.6.4. Reserved.

3.7. STANDARDS FOR BLASTING AND REGULATION OF EXPLOSIVES

3.7.1. Definitions

Small Blast: Trench blast or removal of under fifty (50) cubic yards of rock material.

Medium Blast: Removal of 50-300 cubic yards of rock material.

Large Blast: Removal of over 300 cubic yards of rock material.

3.7.2. Submittal Requirements:

3.7.2.1. All Blast Operations:

Applicants for all blasting operations shall obtain a blasting permit from the Planning and Urban Development Department prior to any blasting.

Application forms may be obtained through the Inspections Division or can be downloaded from the City of Portland website.

3.7.2.2. Medium Blast Operations:

For medium blast operations, the blasting contractor will also be required to submit a blasting submittal with the blasting application form. The blasting submittal must include, at a minimum, the following information:

- Description of Test Blast, Drill Pattern
- Description of Production Blasting, Drill Pattern
- Explosives to be used during wet and dry conditions
- Stemming material and depth
- Description of matting used to prevent fly rock
- Description and location of blasting signs
- Type of seismograph to be used
- Description of proposed transportation and storage of explosives
- Signature of blasting contractor testifying to the accuracy of the above information

3.7.2.3. Large Blast Operations:

For large blast operations, the blasting contractor will also be required to submit a drilling pattern and loading plan, referred to herein as a blasting plan, with the blasting application for review and approval. Blasting plans must be submitted at least two weeks prior to the start of any drilling and/or blasting operations. A model blasting plan is provided at the end of this section and shall include, at a minimum, the following information:

- The sequence and schedule of blasting rounds, including a general description of the proposed approach for developing each bedrock excavation area.
- A diagrammatic description of the typical blast pattern to be used, including pre-splitting pattern if pre-splitting is required.

- Diameter, spacing, burden, depth and orientation of each drill hole relative to the “free face”, along with details of the delay pattern.
- A diagrammatic description of the loading plan for a typical production hole including charge weights and distribution of primer, explosives and stemming within a typical hole.
- Estimation of ground vibration levels at nearest adjacent structures.
- Written evidence of the licensing, experience, and qualifications of the blaster who will be responsible for loading and firing each shot.
- A listing of the number and type of instrumentation proposed to be used to monitor vibrations and airblast overpressures.
- Safety procedures, security measures, and warning sequences.

3.7.3. Pre-Blast Survey

Pre-blast surveys are required for all blasting operations. The blasting contractor will hire an independent seismologist or blasting consultant to perform pre-blast surveys on all structures (contingent upon property owner agreement) within the distances specified below. The independent seismologist or blasting consultant shall not be an employee of the contractor, subcontractor, explosives manufacturer, or explosives distributor.

Size of Blast	Scope of pre-blast survey
Small Blast	Within 250 feet of the perimeter of the blasting site
Medium Blast	Within 500 feet of the perimeter of the blasting site
Large Blast	Within 600 feet of the perimeter of the blasting site

3.7.3.1. Pre-Blast Survey Offer Notice:

Prior to commencement of the pre-blast surveys, the contractor shall provide the following documentation to the Planning and Urban Development Department:

- A list of property owners to be contacted (in accordance with the distances listed in the table, above).
- Verification that the subject property owners were notified of the pre-blast survey work.
- A copy of the pre-blast survey offer notice.
- Whether each offer to conduct a pre-blast survey was either accepted, rejected, or there was no response.

The contractor shall retain a copy of each pre-blast survey offer notice for their records until the development project receives a final certificate of occupancy or is otherwise deemed complete by the City. Nothing herein shall be construed to discourage repeated efforts by the blasting contractor to contact eligible property owners via phone, hand delivery, or other method in addition to provision of the required offer notice letter.

3.7.3.2. Pre-Blast Survey Documentation:

All pre-blast surveys shall include documentation of interior subgrade and above grade accessible walls, ceilings, floors, roof and visible exterior as viewed from the grade level. Where significant cracks or damage exist, or for more complex structural defects, photographs or video shall be taken.

A high- quality videotape survey with appropriate audio description of the locations, conditions, and defects may substitute for a written pre-blast survey. Where necessary, notes and sketches may also be submitted as part of a video pre-blast survey in order to highlight or elaborate on certain aspects of the video documentation.

3.7.3.3. Pre-Blast Survey Conditions Report:

The pre-blast surveys shall include a conditions report for each property. The conditions report may be presented as narrative, photographs, video or a combination thereof. Conditions reports shall summarize the condition of each building and define areas of concern, including deteriorated structures or utilities, structures housing sensitive equipment, and/or manufacturing processes that are sensitive to vibrations.

3.7.3.4. Verification:

Verification that all pre-blast surveys and conditions reports have been completed shall be submitted to the Planning and Urban Development Department at least two weeks prior to commencing any drilling and/or blasting operations.

3.7.4. Notification to Neighbors

Notice of blasting operations shall be provided in accordance with the requirements listed in Section VIII of the Land Use Code. For medium and large blasts, please also refer to the additional notification requirements during construction, described in Section 3.7.8 of this section (*Blasting Schedule*).

3.7.5. Complaint Protocol

The blasting contractor shall be solely and completely responsible for the safety of all persons and property during the performance of work. The blasting contractor shall have full and complete responsibility for the handling, discharging, or settling of any and all damage or annoyance claims resulting from the blasting activities on the project.

Complaints may be submitted to the Blasting Contractor and to the Planning and Urban Development Department or to the Fire Department throughout the duration of blasting operations. If a property owner submits a complaint regarding alleged blasting- related damages, the independent seismologist or blasting consultant shall meet with the property owner within 24 hours of receiving the complaint to discuss the basis for the complaint, review applicable blasting

records, and evaluate the reasonableness of the complaint. If a reasonable basis for the complaint is verified, the independent seismologist or blasting consultant shall conduct a second condition survey of the property within 48 hours of receiving the complaint to identify any changes in the property conditions. A condition survey report summary shall be submitted to the Applicant, and verification that the condition survey was completed shall be submitted to the Planning and Urban Development Department within two weeks of the second condition survey being conducted.

3.7.6. Hours of Blasting and Storage of Explosives

3.7.6.1. Hours of blasting operations shall be limited to those defined in Chapter 14, Section VIII, *Regulation of Explosives* of the City Code of Ordinances.

3.7.6.2. Only the amount of explosives necessary for the day's work shall be brought to the site, and explosives shall be transported and stored in approved magazines when not in use.

3.7.7. Blast Warning

3.7.7.1. International Blast Warnings shall be utilized for all blasting operations, as described below:

3 horns	5 minutes before blast
2 horns	1 minute before blast
1 horn	All clear

3.7.7.2. Large Blasts:

For large blasts, all persons within 600 feet of the blasting area shall be notified of the "warning" and "all-clear" signals through notices left in mailboxes and signs posted in the vicinity of the blasting site.

3.7.8. Blasting Schedule (Medium and Large Blasts, only)

For medium and large blasts, the blasting contractor shall prepare and submit a blasting schedule to the property owner, the general contractor and the Planning and Urban Development Department at least 10 business days prior to commencing blasting operations. The schedule shall include name and contact information for the blasting contractor, blasting area locations, planned dates and times of blasts, access restrictions to the blast areas, and warning signal protocols.

During construction, the blasting contractor shall coordinate the blasting schedule with the property owner, the general contractor, the Planning and Urban Development Department and the Fire Department on a weekly basis.

The morning of a planned detonation, the blasting contractor shall notify the Fire Department and the Planning and Urban Development Department of the planned time of the blast (+/- one hour), the location where the blasting is to occur, and the amount of explosives to be used.

At least 24 hours prior to any blast, the blasting contractor shall inform all property owners who requested notice of the blasting schedule (+/- one hour).

3.7.9. Vibration Limits and Ground Vibration Monitoring

The seismograph must be set up at the closest structure to record each blast event. Ground vibration from all blasting operations shall be measured in terms peak particle velocity (inches per second, ips) and frequency (Hertz). The permissible maximum ground vibration at existing nearby structures shall be limited to values established by the U.S. Bureau of Mines³ to avoid cracking or structural damage in residential structures. Particle velocity shall be recorded in three mutually perpendicular directions. Ground vibration for residential structures shall not exceed the following limits:

Type of Structure	Maximum PPV (ins/s)	
	Frequencies below 40 HZ	Frequencies 40 HZ or greater
Modern Homes (drywall interior)	.75	2.0
Older Homes (Plaster on wood lath for interior walls)	.50	2.0

Deteriorated structures or utilities, structures housing sensitive equipment, and/or manufacturing processes that are sensitive to vibrations may require lower PPV limits than those listed above. If information obtained from the pre-blast surveys indicates lower limits are required for certain structures, the independent seismologist or blasting consultant shall identify the limits applicable to a specific structure, and the blasting contractor shall incorporate such provisions in the features of the blasting plan.

In the event the blasting contractor's blasting round results in ground vibrations closely approaching the stated limits, the blasting operations shall be modified to reduce ground vibrations.

In the event the blasting contractor's blasting round results in ground vibrations exceeding the stated limits at structures, the blasting contractor shall cease all blasting activities and submit a written report to the property owner and the general contractor, copied to the Planning and Urban Development Department and the Fire Department. This report shall describe corrective action to be taken on the next shot. The next shot shall not be loaded until the property owner and the general contractor acknowledge, in writing, copied to the Planning and Urban Development Department and the Fire Department, that a design change is being attempted.

³ United States Bureau of Mines. *Structure Response And Damage Produced By Ground Vibration From Surface Mine Blasting*. Prepared by D.E. Siskind, M.S. Stagg, J.W. Kopp, and C.H. Dowding, Report of Investigations #8507, Appendix B, 1980.

3.7.10. Flyrock Control (Large Blasts, only)

For large blasts, blasting mats, soil, or other equally serviceable material shall be utilized for all blast rounds to prevent the throw of flyrock from the blasting area.

3.7.11. Pre-Blast Safety Meeting (Medium and Large Blasts, only)

For medium and large blasts, prior to any blasting the blasting contractor will conduct a pre-blast safety meeting with all contractors to familiarize them with blast signals and precautions.

3.7.12. Test Blasts (Large Blasts, only)

For large blasts, prior to commencing full-scale blasting, the blasting contractor shall demonstrate the adequacy of the proposed blasting plan by drilling, blasting, and excavating short test sections using small charges and the required monitoring instruments. The blasting contractor shall develop site specific scaled distance relationships from the test blast rounds to determine the allowable charge weight of explosives to be detonated per delay.

3.7.13. Personnel

All employees of the blasting contractor working on site during the blasting operation shall be trained in the use and handling of explosives.

3.7.13.1. Large Scale Blasts:

For large scale blasts, the blasting contractor shall be required to carry liability insurance (XCU) coverage in an amount no less than \$2,000,000.

For large blasts, the blasting contractor shall a company specializing in the use of explosives for breaking rock and licensed in the State of Maine. The blaster or foreman responsible for the loading and firing of each shot, as well as the person responsible for designing and directing the blasting operation, shall have at least five years of documented experience with similar work responsibilities. If controlled blasting methods are required, these individuals shall have at least five years of documented experience in controlled blasting techniques.

At least two weeks prior to the commencement of pre-blast surveys, the contractor will submit the name and qualifications of the independent seismologist or blasting consultant proposed to conduct the pre-blast surveys to the Planning and Urban Development Department and the applicant, if other than the blasting contractor.

At least two weeks prior to the commencement of drilling and blasting operations, the contractor will submit to the City of Portland and applicant the name and qualifications of the independent seismologist or blasting consultant proposed to monitor and report blasting vibrations.

3.7.14. Record Keeping and Reporting

3.7.14.1. For large blasts, Blast monitoring and analysis shall be conducted by the independent seismologist or blasting consultant. A minimum of two (2) seismograph instruments will be used to monitor vibrations and airblast pressures for each blast. The seismographs used by the seismologist or blasting consultant for blast monitoring shall comply with the following requirements:

- Velocity range: 0.005 to 10.0 inches per second.
- Seismic frequency range: 2 to 250 Hz, within zero to -3 dB of an ideal flat response.
- Acoustic frequency range: 2 to 250 Hz flat, -3 dB at 2 Hz $\pm$ 1 dB.
- Sound range: 100 to 140 dB (linear).
- Measure, display, and provide a permanent time history record of the event, including both ground vibration and airblast.
- Measure the three mutually perpendicular components of particle velocity in directions vertical, radial, and perpendicular to the vibration source.
- The seismograph shall display and provide a record of:
 - the date and time of the event
 - identifying information concerning the company
 - the location of the seismograph and of the blast
 - trigger levels
 - verification the instrument was set for “continuous” and not “manual” readings
 - instrument serial number
 - the date of the most recent calibration
- The seismograph shall be calibrated as often as necessary, but at least once every 12 months, and must be performed to a standard traceable to the National Institute of Standards and Technology.

Blast monitoring data obtained by the independent seismologist or blasting consultant must be available for inspection on the blasting site, be submitted in writing to the Applicant within 24 hours following each blast, and be submitted to the Planning and Urban Development Department on a weekly basis. A model blast monitoring report is included at the end of this section.

3.7.14.2. Blasting Log:

A blasting log summarizing details of the round as shot, weather conditions, proximity of the blast location to nearest structures, exact locations of monitoring instruments, and the results of blast monitoring at each instrument location shall be maintained daily for every blast. The blasting log shall be available for inspection on-site, shall be submitted in writing to the Applicant within 24 hours following each blast, and shall be submitted to the City on a weekly basis.

3.7.15. Airblast Overpressure Limits

The peak airblast overpressure at any inhabited building not owned or controlled by the developer shall not be allowed to exceed 133 decibels (linear) when measured by an instrument with a high pass system and a lower frequency limit of 2 Hz.

The seismologist or blasting consultant shall monitor, record, analyze and report airblast pressure resulting from the blasting activities. In the event the blasting contractor's blasting round results in airblast overpressures approaching the stated limits, the Applicant may require the blasting contractor to modify the blasting operations to reduce airblast overpressures. In the event the blasting contractor's blasting round results in airblast overpressures exceeding the stated limits at structures, the blasting contractor shall cease all blasting activities and submit a written report to the Applicant, and copied to the City. This report shall discuss the corrective action to be taken on the next shot, and the next shot shall not be loaded until the Applicant acknowledges, in writing, that a design change is being attempted.

3.7.16. Carbon Monoxide (CO) Control

If any blasting operations are to occur within two hundred and fifty (250) feet of any structure, the blasting company shall:

- Submit a carbon monoxide (CO) management plan to the Planning and Urban Development Department with the Blasting Application for review and approval. The plan shall detail strategies that will be employed by the blasting company throughout blasting operations to prevent and mitigate the health and safety risks associated with possible CO migration away from the blast site and into abutting structures. CO management plans shall be tailored to the specific nature of blasting operations but shall include, at a minimum, two or more of the following actions:
 - Effort to determine the presence and location of one or more operable Carbon Monoxide detector(s) within abutting structures. Where operable Carbon Monoxide detectors are not present, they shall be temporarily provided and placed in the basement of the structure, or on the first floor if there is no basement, until at least 24 hours after completion of blasting operations.
 - Immediate excavation of individual shots, with holes remaining vented for an adequate time to allow any CO produced by the blast to dissipate into the atmosphere. Safe CO levels in the blast hole shall be confirmed by a CO detector before the hole is backfilled.
 - Identify and document active and abandoned sewer connection locations and sealed drains locations for abutting

structures as part of the pre-blast survey in order to identify structures that may pose an increase risk for CO migration. This information is available through the City of Portland Department of Public Services.

- Notify all commercial and residential abutters of the blast site at least 24 hours prior to the start of blasting by means of door hangers left at both front and rear primary building entrances. Reasonable effort shall be made to also provide face-to-face notification to all building owners and/or occupants of abutting buildings. Door hangers shall be provided to the blasting company by the City of Portland and are available through the Fire Department or the Inspections Division. The language provided on the door hanger is provided at the end of this section.

If a carbon monoxide detector is in alarm during blasting operations, the blasting company or building occupant shall call 911 immediately. In addition to calling 911, the blasting company shall contact the Fire Department at (207) 874-8405 to notify them of the emergency. The blast location shall be excavated immediately and shall remain open to the atmosphere until CO is no longer detectable in the blast hole.

3.8. MODEL BLASTING PLAN

Removal of over 300 cubic yards of rock material

The purpose of the Blasting Plan is to describe anticipated rock excavation requirements for the project, and outline proposed blasting operations, vibration control criteria, and monitoring/reporting protocols, and to protect surrounding properties from damage related to proposed blasting activities.

1. Project:

2. Project Location:

3. Estimated Quantity (cubic yards in-ground measurement) of Rock to be Blasted:

4. Project Description

Describe the project for which blasting is required. Include lot size, building construction type, number of units, etc. Refer to site/grading plans. Specify anticipated depth of fills and cuts.

5. Site and Subsurface Conditions

Provide a detailed description of the site, including but not limited to existing conditions, elevations, terrain character, topography, soil conditions, groundwater depths, depth of bedrock, etc.

6. Surrounding Properties, Utilities and Wells

Describe surrounding properties, specifying use and type of construction. Include a vicinity map with the outlines of existing structures located within a site radius equal to the minimum radius required for pre-blast condition surveys.

Indicate the location of all utilities in the vicinity, including water, sewer, stormwater, and natural gas.

Indicate the location of drinking wells in a 2000ft radius of the property.

7. Anticipated Project Areas Requiring Blasting

Indicate on a site plan the areas where blasting is expected to occur. Provide a narrative characterizing the blasting/excavation work, the estimated total number of cubic yards of material to be removed by blasting, and an estimate of the number of blasts required to remove the specified amount of material.

Include a proposed Bedrock Excavation Plan showing approximate bedrock excavation areas, variations in the depth of bedrock excavation requiring blasting, and areas where controlled perimeter blasting methods will be used (if any).

Describe the distance of proposed blasting to the nearest structures and underground utilities.

Attachments:

- A. Site Plan
- B. Radius Plan
- C. Proposed Bedrock Excavation Plan
- D. Model Notification Letter
- E. Model Offer of Pre-Blast Survey Notice
Blasting Log
- F. Model Blast Monitoring Report

3.9. MODEL NOTIFICATION LETTER

Date _____

Dear Neighbor:

We are sending you this letter to inform you that we will be blasting ledge in preparation for the _____ project on _____ Street.

As required by City Ordinance, prior to any blasting, neighbors within (250, 500, 600)feet of the blast area shall be notified in writing prior to the blast.

We will begin blasting on _____. We expect the blasting to last for _____. By City Ordinance, blasting will occur between 9:00am – 4:00pm, Monday through Friday.

The procedure for the blast will be as follows: Just before the blasting is due to begin, a horn will sound to signal people in the immediate area of the upcoming blast. The horn will blow in the following sequence:

- 3 long horns – 5 minutes before the blast
- 2 long horns – 1 minute before the blast
- 1 long horn - All clear for the blast to proceed.

Please Note: Toxic gases, including carbon monoxide (CO), are a byproduct of the detonation of explosives. Carbon monoxide is a poisonous, colorless, odorless, and tasteless gas. Exposure to raised levels of carbon monoxide can be hazardous or deadly. It is possible, in instances of incomplete combustion of explosives and where an open pathway is present, for carbon monoxide to travel from the blast site into nearby buildings. The Portland Fire Department encourages all Portland residents to install carbon monoxide detectors in their homes and workplaces to prevent exposure to hazardous levels of carbon monoxide. Carbon monoxide detectors should be installed in the basement or on the first floor of structures.

If you have any questions, please call any of the following numbers:

Blasting Contractor _____

City of Portland Fire Prevention Bureau
City of Portland Development Review Coordinator
City of Portland Inspections Division

(207) 874-8405
(207) 874-8719
(207) 874-8703

For damage complaints, please call the Fire Prevention Bureau at (207) 874-8405 to log the complaint and request inspection and documentation of the damage.

Please do not hesitate to call if you have any questions or concerns.

Sincerely,

Blasting Contractor

3.10. MODEL OFFER OF PRE-BLAST SURVEY NOTICE

Date

Dear Neighbor:

We are sending you this letter to inform you that we will be blasting ledge in preparation for the _____ project on _____ Street.

As required by City Ordinance, prior to any blasting, a pre-blast survey of all structures within (250, 500, 600)feet of the blast area shall be conducted to establish a base line against which any claims of damage caused by this blasting can be judged.

Your property is within the (250, 500, 600) ft radius. A pre-blast survey will be performed at no cost to you if you would like to have it done.

To request that a pre-blast survey be done of your residence, please complete the enclosed survey form in its entirety and mail it back in the enclosed stamped envelope no later than_____.

Pre-blast condition surveys for this project will be performed by _____. A representative from _____ will call you to set up an appointment to perform the survey. A seismologist or a qualified technician working under the direction of a seismologist from _____ will then make a videotape of the interior and exterior condition of your residence. The pre-blast survey records will be kept in a locked file for a period of _____after the completion of blasting at which time they will be destroyed.

If you have any questions, please contact _____ at _____.

Thank you,

Blasting Contractor

3.11. Door Hanger Model Language

Fact Sheet

This notice serves as a reminder that blasting operations will be occurring in your neighborhood in the next day or two. By now you should have also been notified in writing by the Blasting Company who will be doing this work. For the public's safety, the City of Portland requires contractors of blasting operations to monitor for the release of any carbon monoxide gas traveling into occupied buildings. This notice describes what carbon monoxide is, identifies potential signs of carbon monoxide build-up and steps for you to follow.

What is carbon monoxide?

Carbon monoxide (CO) is an odorless, colorless gas that can cause sudden illness or death.

Where is CO found?

CO is found in combustion fumes, such as those produced by cars and trucks, small gasoline engines, stoves, lanterns, burning charcoal and wood, and gas ranges and heating systems. ***CO is also a byproduct of blasting operations in the ground.*** CO from any of these sources can build up in enclosed or semi-enclosed spaces. People and animals in these spaces can be poisoned by breathing it.

Protection from CO

The best protection from CO poisoning is early detection through the installation of a working carbon monoxide detector in your home.

What are the symptoms of CO poisoning?

The most common symptoms of CO poisoning are headache, dizziness, weakness, nausea, vomiting, chest pain, and confusion. High levels of CO inhalation can cause loss of consciousness and death. Unless suspected, CO poisoning can be difficult to diagnose because symptoms mimic other illnesses. People who are sleeping or intoxicated can die from CO poisoning before ever experiencing symptoms.

Emergency Contact

If you or anybody in the building experiences any of the symptoms or your CO detector goes into alarm ***please call 911 immediately.***

If you have general questions regarding blasting operations in your neighborhood or carbon monoxide, please contact the Portland Fire Department Fire Prevention Bureau.

**Portland Fire Department
Fire Prevention Bureau
380 Congress Street
Portland, ME 04101
874-8405**

3.12. MODEL EMERGENCY ACCESS LANE MAINTENANCE AGREEMENT

IN CONSIDERATION OF the Subdivision approval granted by the Planning Board of the City of Portland to a plan entitled

dated _____, 20____ and recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page _____ and pursuant to a conditions thereof,

(Applicant, Nature of Applicant's Business-Corporation, Partnership or sole proprietorship and principal of business)

The owner of the subject premises, does hereby agree, for itself, its successors and assigns (the "Owner") as follows:

1. That the Owner shall be responsible for the maintenance and repair of, snow removal from, preservation of, and removal of obstructions and encumbrances including but not limited to debris, junked vehicles and other refuse, from the Emergency Access Lane depicted on the Plat (the "Emergency Access Lane") so that the Emergency Access Lane shall remain reasonably passable for fire-fighting and preventive apparatus and vehicles and other public emergency vehicles owned or operated by or on behalf of the City of Portland.

2. That the Owner shall remove snow from Emergency Access Lane so that at no time shall the snow accumulate thereto to an average depth in excess of four (4) inches and shall also remove snow from the Emergency Access Lane of a depth of less than four (4) inches if subsequent rain, hail or temperatures below thirty-two (32°) degrees Fahrenheit shall result in the snow accumulated on the Emergency Access Lane becoming so frozen as to render the Emergency Access drive impassable by such fire-fighting and public emergency vehicles. If the Owner shall fail to remove such non-frozen snow accumulating in excess of four (4) inches in depth within twenty-four (24) hours after the cessation of the storm creating such snow, or if the Owner shall fail to remove such ice within twenty-four (24) hours after ice has accumulated or formed to the state as to render the Emergency Access Lane impassable for said purposes, or if the Owner shall fail to remove said obstructions and encumbrances on the Emergency Access Lane (that are not the result of precipitation) which render the Emergency Access Lane (that are not the result of precipitation) which render the Emergency Access Lane impassable for said purposes within thirty-six (36) hours after such obstructions and up the Emergency Access Lane and adjacent land as necessary with men and machines in order to plow and clear, or cause to be plowed and cleared, such snow and ice and to remove said obstructions and encumbrances from the Emergency Access Lane and bill the Owner for the expense of the same. The City of Portland shall submit its itemized bill for such expenses to the Owner which the Owner shall pay to the City of Portland within sixty (60) days of receipt, or such longer period of time as the City of Portland shall agree to. The expenses billed to the Owner shall include the time spent for travel to and from the Property.

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 its successors and assigns as their interests may appear.

Date at Portland, Maine this _____ day of _____, 20____

(Applicant)

BY _____
Its

State of Maine

Cumberland, ss _____, 20

Then personally appeared the above named _____,
and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free
act and deed of said Corporation.

Before me,

Notary Public/Attorney-at-Law

(Print or Type Name)

*If the approval is of a site plan, this clause should read “IN CONSIDERATION OF THE SITE
PLAN APPROVAL granted by the Planning Board of the City of Portland to a site plan entitled _____,
dated FORMTEXT _____, 20 _____, and file with the City of Portland, Department of Planning and
Urban Development, 389 Congress Street, Portland, Maine...”



PLANNING BOARD REPORT PORTLAND, MAINE

Residential Development
95 Front Street
Level III Site Plan, Subdivision, and Conditional Use (Inclusionary Zoning) Review
PL-000672-2019
Front Street Redevelopment, LP, Applicant

Submitted to Portland Planning Board Public Hearing Date: July 23, 2019	Prepared by: Christian Roadman Date: July 19, 2019
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Site context of proposed development at 95 Front Street (image: Pictometry)

I. INTRODUCTION

The Portland Housing Authority (PHA) proposes a redevelopment of its existing property (as well as an additional adjoining property) at the intersection of Front Street and West Presumpscot Street. PHA intends to develop 113 dwelling units spread throughout three phases, each with a distinct proposed client base. Currently, 20 buildings comprising approximately 52 dwelling units are located on the site. PHA's stated goal is "to replace the aging existing housing" while "increasing the number of dwelling units on the

property to better reflect the development potential of the property.” Two community centers (one on each side of West Presumpscot Street), a playground, and several areas of open space are also proposed as part of the project, which is located across the street from a portion of Payson Park.

Phase one of the proposed project entails 60 units of family-oriented rental units across four buildings. Phase two would introduce 45 units of senior rental apartments. Phase three proposes eight townhouse units (to be sold for homeownership) across two buildings. Each phase includes some market-rate units combined with units targeted for specific affordability levels (**attachment A**). Six homeownership units are targeted to 120% area median income, and 84 apartment units are targeted to 60% or 50% area median income. This qualifies the project for dimensional and density bonuses per Division 30 of the City’s Land Use Code.

The proposed project requires review as a Level III Site Plan, Subdivision and Conditional Use (Inclusionary Zoning). A total of 171 notices were sent to property owners within 500 feet of the site and a legal ad ran in the July 12 and July 13 editions of the Portland Press Herald. The Planning Board held a workshop for this proposed project on June 25. An earlier iteration of the proposed project had a workshop in 2017 but did not proceed to a public hearing.

Applicant: Front Street Redevelopment, LP

Consultants: Carroll Associates (landscape architect), Utile Architects, Ransom Consulting Engineers (civil), Gorrill Palmer Consulting Engineers (traffic), Owen Haskell, Inc. (surveyor)



Perspective rendering of the proposed development's phase 1 (image: applicant)

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Driveway Width: 18' (Supported by the Department of Public Works)	Technical Manual Section 1.7.2.3, requiring a minimum width of 20'
Parking Lot Aisle Width: 22' (Supported by the Department of Public Works)	Technical Manual Figure I-27, requiring a minimum width of 24'
Compact Parking Spaces: 25.4 %	Technical Manual Section 1.14, requiring a 20% maximum

(Supported by the Department of Public Works)	
<i>Review</i>	<i>Applicable Standards</i>
Site Plan	<i>Section 14-526</i>
Subdivision	<i>Section 14-497</i>
Inclusionary Zoning (IZ)	<i>Section 14-474, Section 14-487</i>

III. PROJECT DATA

Existing Zoning	R-5
Existing Use	Residential (52 dwelling units)
Proposed Use	Residential (105 apartments, 8 homeownership units)
Bedroom Mix	Studio: 2 One-bedroom: 51 Two-bedroom: 24 Three-bedroom: 24 Four-bedroom: 10 Five-bedroom: 2
Total Parcel Size	4.28 acres

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Total Building Footprints	30,187 sf.	49,681 sf.	19,494 sf.
Total Building Floor Areas	60,374 sf.	127,095 sf.	66,721 sf.
Impervious Surface Area	70,150	110,147	38,824 sf.
Parking Spaces	50	113	63
Bicycle Parking Spaces	0	70 (interior + exterior)	70

IV. PUBLIC COMMENT & NEIGHBORHOOD MEETINGS

As of the writing of this report, two formal comments were sent to the Planning Division. A nearby resident wrote that the proposed number of parking spaces does not seem sufficient for 113 units (**attachment P1**). Another resident, writing as President of the East Deering Neighborhood Association, wrote (**attachment P2**) to express that the massing, height and scale of the project does not complement the surrounding neighborhood and that the exterior treatment of the proposed buildings have an institutional look. Their email also weighed in on several other topics, including proposed bumpouts (not supported), potential conversion of Cummings Street to a trail (not supported) and potential on-street parking restrictions (not supported). They also expressed concern about resident displacement as well as water drainage.

In accordance with Division 30 (affordable housing) of the City's Land Use Code, the applicant held a neighborhood meeting on April 11 2019, prior to applying for site plan review. As part of the level III site plan application process, the applicant held an additional neighborhood meeting on July 2, 2019.

The applicant team provided certification / documentation of both neighborhood meetings (**attachment Z** and **attachment Z2**). At the April 11 meeting, 12 individuals signed in. According to the applicant team, attendees asked the applicant team several questions and raised concerns about the sufficiency of large units and the effects of relocating existing residents.

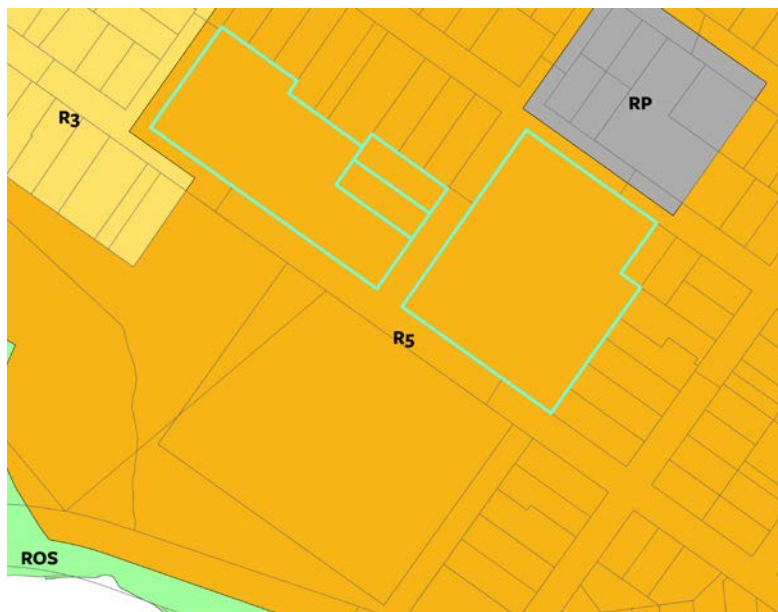
At the July 2 meeting 14 individuals (not including those identified as meeting facilitators) signed in. At that meeting, an area neighbor raised concerns about the height of the building at the corner of Illsley and Presumpscot Streets. An area neighbor also expressed concern that the provided off-street parking is not sufficient.

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

The applicant submitted deeds to indicate right, title, and interest in the relevant property (**attachment B**).

Documentation of various grants, awards, subsidies, and loans evidence the applicant's financial capacity (**attachment C**). The project team cited their experience and multi-disciplinary composition to demonstrate their technical capacity to complete the project (**attachment D**).

An existing sewer easement to the City is included in the submitted plan set.



Zoning context of proposed development at 95 Front Street

VI. ZONING ANALYSIS

The proposed project is a Planned Residential Unit Development (PRUD) located in the R-5 residential zone. As an affordable housing project it qualifies for more permissive dimensional and parking standards than other PRUDs in the zone.

The project meets relevant minimum lot size, area per dwelling unit, maximum lot coverage, setbacks, and open space requirements.

Division 20 of the Land Use Code dictates parking requirements. As an affordable housing project, the proposed development requires one space per dwelling unit. With 113 parking spaces for 113 dwelling units the proposed project meets this requirement.

The project must supply 45 bicycle parking spaces to comply with the parking and site plan sections of the Land Use Code. The applicant proposes 34 bicycle parking spaces exterior to buildings, and interior storage space for 36 bicycles (divided between four of the proposed buildings). The total proposed bicycle parking count, 70, is sufficient.

Victoria Volent, the City's housing program manager, determined (**attachment 1**) that the applicant has exceeded the Inclusionary Zoning requirements set forth in Division 30 of the City's Land Use Code. She also noted that on July 15, the City Council approved a Credit Enhancement Agreement between the City and applicant. That agreement requires the developer and the City to execute a thirty-year declaration in order to assure the continued affordability of the rental units. She recommends Planning Board approval of the inclusionary zoning conditional use with three conditions, which are included with a proposed motion below.

VII. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

A. SUBDIVISION (Section 14-496)

Staff reviewed the proposed development for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations. Staff comments are summarized below.

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

The project proposes a variety of stormwater treatment applications, including rain gardens and underground detention tanks. Additionally, the project proposes introduction of a separated sewer system, which will help reduce combined sewer overflows into the Back Cove. However, final designs of the stormwater treatment systems are not complete at this stage of the project. Consulting civil engineer Lauren Swett reviewed the applicant's proposal (**attachment 2**) and suggests a final design (showing final locations of stormwater infrastructure) as well as any updated calculations necessary due to design changes) as a condition of approval.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The applicant team provided a capacity confirmation request to the Portland Water District. The District's capacity confirmation is suggested as a condition of approval.

3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

The applicant team provided a traffic and parking study prepared as part of their 2017 site plan application for a similar project, as well as an updated traffic evaluation. Consulting traffic engineer Tom Errico noted (**attachment 3**) that the applicant team should conduct an evaluation of three high crash locations noted in their traffic evaluation to identify patterns and contributing factors, as well as

mitigation strategies for improving safety. To address neighborhood traffic management concerns, Mr. Errico included a condition of approval that the applicant shall be responsible for retrofitting the traffic signal heads on the West Presumpscot Street approach with louvers or other approved equipment such that the green traffic signal indicators are not visible far from the intersection.

4. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

As noted above, the applicant plans to install a separated sewer system (instead of the existing combined sewer system) which currently exists. The Department of Public Works provided confirmation of wastewater capacity (**attachment 4**) for the project.

Ms. Swett and Brad Roland of the Department of Public Works did flag for the applicant (**attachment 2**) that the proposed separated stormwater system will not drain when the tide is up to the outfall (though a tide-flex valve is in place to prevent backwater from the Back Cove).

5. Comprehensive Plan (Section 14-497 (a) 9)

Several local goals identified in the Housing section of the City's Comprehensive Plan are relevant to the proposed project, including the following:

"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."



Perspective rendering of the proposed development's phases 2 and 3 (image: applicant)

B. SITE PLAN STANDARDS (SECTION 14-526)

Staff reviewed the proposed development for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations listed below.

1. Transportation Standards

a. Impact on Surrounding Street Systems and Access and Circulation

The proposed project promotes pedestrian and vehicular access to and within the site. Particularly notable is a proposed access road between Illsley and Front Streets, east of West Presumpscot Street. The project's seven buildings and various open and recreational spaces are connected internally via sidewalks and crosswalks.

The proposed project plans currently include a curb extensions or "bump outs" (which narrow road width at crossings, thereby reducing pedestrian crossing time and exposure) on West Presumpscot Street. Department of Public Works senior engineer Mike Tremblay is reviewing the bumpout (**attachment 5**) to ensure it is necessary for ADA compliance without introducing unreasonable cost.

Depending on the outcome of his review, the bumpout may need to be removed from the site plan. Other pedestrian and transportation-related items will also require further review and investigation, as noted in his other comments (**attachment 6**). Mr. Tremblay noted the applicant might install fluorescent pedestrian warning signs to encourage traffic calming and yielding to pedestrians by cars. He also noted that additional spot grades are necessary to determine ADA compliance, and the applicant acknowledged this request.

Fire Department Division Chief Mike Thompson requested (**attachment 8**) a turning template proving that emergency apparatus will have adequate access to West Presumpscot Street from Front Street. Mr. Tremblay provided a similar comment. The applicant recently submitted a turning template, which has not yet been sufficiently reviewed.

Given the potential changes to the remaining bumpout and Front Street parking restrictions, a final revised site plan addressing relevant reviewer comments is suggested as a condition of approval.

As noted above, consulting traffic engineer Tom Errico suggested further investigation of three neighborhood high crash locations. He also suggested introduction of optic louvers to a nearby traffic light as a condition of approval.

b. Sidewalks

The applicant proposes to provide sidewalks along their entire street frontage.

c. Public Transit Access

While the site benefits from public transit service along Washington Avenue, it is not located directly along a Metro route. Construction of a transit shelter is not required.

d. Parking, Bicycle Parking

Adequate bicycle parking is provided, but Transportation Program Manager Bruce Hyman requests that the applicant adjust some bicycle rack placement, as mentioned above.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site, which is already developed.

b. Landscaping and Landscape Preservation

Arborist Jeff Tarling provided comments (**attachment 9**) on the proposed landscape plan. While generally supportive, he suggests revisions to some tree placement and species selection. Submission and acceptance of a revised landscape plan is suggested as a condition of approval.

Because the applicant proposes to develop 113 dwelling units, 113 street trees (or acceptable alternatives per the City's Technical Manual) must be provided. The applicant plans to provide 25 trees during phase one construction, 15 trees during phase two construction, and five trees during phase three construction. Compared with the dwelling units proposed for each stage of construction, this leaves a deficit of 35, 30, and 3 remaining trees for each respective phase. To meet their street tree requirements, the applicant intends to pay into the City's street tree fund at each phase of construction, at the standard rate of \$400 per street tree. The following payments are therefore expected, and suggested as a condition of approval.

Phase One: \$14,000

Phase Two: \$12,000

Phase Three: \$1,200

Total: \$27,200

c. Water Quality, Storm Water Management, and Erosion Control

Per consulting civil engineer Lauren Swett's review (**attachment 2**), described above, final stormwater treatment designs and calculations are required as a condition of approval.

Per the City's standard conditions of approval, a stormwater maintenance agreement will be required of the applicant. As plans develop, a draft agreement and maintenance plan should be developed and shared with staff for review.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

Fire Division Chief Mike Thompson noted in comments (**attachment 8**) that adequate emergency vehicle access must be maintained from Front Street onto West Presumpscot Street. The applicant submitted a turning template, review of which is not complete.

b. Availability and Adequate Capacity of Public Utilities

As noted above, the Department of Public Works confirmed adequate wastewater capacity for the project, and the applicant must submit a confirmation of capacity from the Portland Water District.

4. Site Design Standards

a. Snow and Ice Loading

Snow storage areas are identified on the applicant's proposed site plan.

b. View Corridors

This standard is not applicable to this project.

c. Historic Resources

This standard is not applicable to this project.

d. Exterior Lighting

The applicant responded to previous planning staff concerns with an updated lighting plan, and submitted cutsheets for full-cutoff light fixtures (**attachment V**)

e. Signage and Wayfinding

Per reviewer request, the site plan notes that parking signage on a city street shall conform to city standards.

f. Zoning Related Design Standards

The proposed project must conform to the standards for PRUDs in the R5 residential zone, detailed in the City's Design Manual. Urban designer Caitlin Cameron provided a design memo (**attachment 10**) raising concerns about the use of rural materials in an urban neighborhood, a lack of buffer and private space between proposed townhomes and nearby surface parking, and questioning whether or not the overall design meets the standard to complement area residential context. Per her design memo, staff seek Planning Board feedback and guidance to the applicant regarding these issues.

5. Construction Management Plan

Consulting traffic engineer Tom Errico reviewed the applicant's construction management plan (**attachment P17**) and does not require changes for approval.

XII. PROPOSED MOTIONS

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 July 23, 2019 for application PL-000672-2019 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**], based upon the Department of Public Works senior engineer's review (**Attachment 11**), that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.7.2.3) which requires a 20 foot driveway width for two-way driveways. The Planning Board [**waives / does not waive**] the Technical Manual standard (Section 1.7.2.3) to allow an 18 foot wide driveway.
2. The Planning Board [**finds / does not find**], based upon the Department of Public Works senior engineer's review (**Attachment 11**), that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Figure I-27) which requires a minimum parking lot drive aisle width of 24 feet. The Planning Board [**waives / does not waive**] the Technical Manual standard (Figure I-27) to allow a 22 foot wide parking lot drive aisle width.

3. The Planning Board **[finds / does not find]**, based upon the Department of Public Works senior engineer's review (**Attachment 11**), that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.14) which allows parking lots with greater than 10 spaces to be comprised of 20% parking spaces. The Planning Board **[waives / does not waive]** the Technical Manual standard (Section 1.14) to allow 25.4% of the spaces to be compact.

B. SUBDIVISION

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 July 23, 2019 for application PL-000672-2019 relevant to the subdivision regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **[is / is not]** in conformance with the subdivision standards of the land use code.

C. SITE PLAN

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 July 23, 2018 for application PL-000672-2019 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, subject to the following conditions of approval:

CONDITIONS WHICH MUST BE MET PRIOR TO SUBMITTAL OF A BUILDING PERMIT APPLICATION:

1. The applicant shall provide final stormwater treatment designs for review and approval by the Planning Authority and the City's consulting civil engineer.
2. The applicant shall provide an ability to serve letter from the Portland Water District for review and approval by the Planning Authority.
3. The applicant shall submit a final site plan addressing relevant reviewer comments for review and approval by the Planning Authority.
4. The applicant shall provide an updated landscape plan for review and approval by the Planning Authority and City Arborist.

CONDITIONS WHICH MUST BE MET PRIOR TO ISSUANCE OF RELEVANT BUILDING PERMITS

5. The applicant shall pay \$400 into the City's Street Tree Fund for each required tree that is not provided for each phase of construction (a total of \$27,200 towards the Fund).

CONDITIONS WHICH MUST BE MET PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

6. The applicant shall retrofit the traffic signal head on the West Presumpscot Street approach with louvers or other approved equipment such that the green traffic signal indicators are not visible far from the intersection.

D. 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 July 23, 2019 for

application PL-000672-2019 relevant to the Conditional Use as authorized by Division 30, Section 14-487 Ensuring Workforce Housing; and the testimony presented at the planning board hearing, the Planning Board finds that the Conditional Use **[is / is not]** in conformance with the standards of the land use code and **[approves / does not approve]** the application, subject to the following conditions of approval:

1. Should the designated units identified as restricted to households earning up to 50% AMI, and the designated units identified as restricted to households earning up to 60% AMI fail to retain their affordability restrictions, then the Applicant and the City shall enter into an agreed upon Affordable Housing Agreement (AHA) to ensure a minimum of 6 units with a total of 10 bedrooms are designated Workforce Units.
2. The applicant and the City shall enter into an agreed upon Affordable Housing Agreement (AHA) for the six (6) Workforce Units identified in Phase III before a Building Permit may be issued for any of the 8 homeownership units.
3. 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.

ATTACHMENTS

1. V. Volent IZ Memo
2. L. Swett Comments 7-19-19
3. T. Errico Comments 7-19-19
4. Wastewater Capacity Authorization
5. M. Tremblay Bumpout Review Notice 7-17-19
6. M. Tremblay Comments 7-18-19
7. B. Hyman Comments 7-16-19
8. Energov Comments Report 7-19-19
9. J. Tarling Comments 7-19-19
10. C. Cameron Design Review Memo
11. M. Tremblay Waiver Request Approvals 7-19-19

PUBLIC COMMENT

- PC1. 6-12-19
PC2. 6-27-19

APPLICANT'S SUBMITTALS

- A. Affordability Targeting
- B. Right Title & Interest Deeds
- C. Financial Capacity
- D. Technical Capacity
- E. Curb Extensions Review Form
- F. Easements
- G. State & Federal Permit Requirements
- H. Zoning Analyses Table
- I. Traffic & Parking Evaluation
- J. Application Checklist

- K. Project Description
- L. Project Summary
- M. Significant Natural Features
- N. Solid Waste
- O. Stormwater Management Narrative
- P. Utility Capacity
- Q. Wastewater Capacity Application
- R. Water District Capacity Request
- S. Waiver Table
- T. Inclusionary Zoning Requirements
- U. Code Analysis
- V. Lighting Cutsheets
- W. Updated Traffic Evaluation
- X. Comment Response Letter
- Y. Construction Management Narrative
- Z. Neighborhood Meeting 4-11-19
- Z2. Neighborhood Meeting 7-2-19

PLANS

- P1. Cover Page
- P2. Boundary & Topography Survey
- P3. Building Floorplans
- P4. Perspective Views & Context & Massing Logic
- P5. Building Elevations
- P6. Demo & Site Prep
- P7. Site Plan
- P8. Phasing
- P9. Grading & Drainage
- P10. Subdivision Plan
- P11. Utilities
- P12. Stormwater
- P13. Civil Details
- P14. Landscape & Lighting
- P15. Photometric Plan
- P16. Site Details
- P17. Construction Management Phases



To: Christian Roadman, Planner, Planning & Urban Development Department

From: Victoria Volent, Housing Program Manager, Housing & Community Development Division

Date: July 18, 2019

Subject: 37 Front Street

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 Workforce units shall be at least 10% of the total number of bedrooms made available as part of the development.

Front Street Housing Redevelopment proposes the replacement of the Portland Housing Authority property at 37 Front Street from 50 existing apartment units to 105 new apartment units and 8 homeownership units in seven buildings for families and seniors. The project will consist of two (2) studio apartments, fifty-one (51) one-bedroom units, twenty-four (24) two-bedroom units, twenty-four (24) three-bedroom units, ten (10) four-bedroom units, and two (2) five-bedroom units. The applicant has elected to provide eighty-four (84) units of low-income housing. Of these units, seventy-one (71) are targeted towards households earning 50% AMI, and thirteen (13) units target households earning 60% AMI. Twenty-one (21) units will be rented at market rate, two (2) home ownership units will be sold at market rate, and six (6) units will be sold at 120% Area Median Income. Fifty (50) units will have project based rental assistance; ten percent (10%) of the units will have a set-aside for homeless households, and another ten percent (10%) of the units will have preference for homeless or disabled households.

The applicant proposes to construct the development in three distinct phases. Phase One will consist of 60 "family" rental units in four buildings. Forty-eight (48) or 80 percent of the units in Phase One will be affordable. Phase Two will consist of 45 "senior" rental units. Thirty-six (36) or 80 percent of the units in Phase Two will be affordable. Phase Three will consist of 8 homeownership units. Six (6) or 75% of the units in Phase Three will be designated as Workforce Units restricted to households earning up to 120% of the Area Median Income (AMI).

Based on the requirements outlined in Section 14-487, the development is required to provide a minimum of twelve (12) Workforce Units with a total of twenty-four (24) bedrooms. The applicant has elected to provide six (6) deed restricted home ownership units and eighty-four (84) affordable rental units (seventy-one (71) at 50% AMI and thirteen (13) at 60% AMI). The total bedroom count of the six deed restricted home ownership units will be fourteen (14) bedrooms while the total bedroom count of the eighty-four affordable rental units will be one hundred seventy-nine (179) bedrooms (one hundred fifty-eight (158) at 50% AMI and twenty-one (21) at 60% AMI).



The applicant is providing a greater percentage of affordable units at lower income targets than required by the Ensuring Workforce Housing Ordinance. Staff has determined this project exceeds the affordability requirements of Division 30, Section 14-487.

The City Council approved a thirty year Credit Enhancement Agreement between the City and Front Street Housing Redevelopment LP, during their July 15, 2019 meeting. Section 8.11 (Affordability Covenants) of the Agreement requires the Developer and the City to execute a thirty-year declaration in order to assure the continued affordability of the rental units as required by the Development Program, Maine State Housing Authority and applicable laws, regulations and ordinances.

Staff recommends the Planning Board Approve this Conditional Use based on the following Conditions:

- 1) Should the designated units identified as restricted to households earning up to 50% AMI, and the designated units identified as restricted to households earning up to 60% AMI fail to retain their affordability restrictions, then the Applicant and the City shall enter into an agreed upon Affordable Housing Agreement (AHA) to ensure a minimum of 6 units with a total of 10 bedrooms are designated Workforce Units,
- 2) The applicant and the City shall enter into an agreed upon Affordable Housing Agreement (AHA) for the six (6) Workforce Units identified in Phase III before a Building Permit may be issued for any of the 8 homeownership units,
- 3) 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



Christian Roadman <croadman@portlandmaine.gov>

95 Front Street

Lauren Swett <lswett@woodardcurran.com>

Fri, Jul 19, 2019 at 8:12 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Bradley Roland <brad@portlandmaine.gov>

Hi Christian,

I have reviewed the response to comments and additional information provided for the project. They have addressed all of my previous comments. I have a few notes for your report.

- The Applicant has provided additional clarification on stormwater treatment systems, and I am comfortable with the information they have provided. They've noted that some of the stormwater systems are shown schematically, and I believe that final design will be driven by soil management plans related to the site's Brownfield designation. They will be completing a final design, and it should be a condition of approval that a design plan showing final locations, and any updated calculations necessary due to changes, be provided for review before a building permit can be issued.
- They have requested a waiver of the flooding standard. The project will be separating a section of existing combined sewer, and installing a new, larger stormdrain pipe that will adequately manage the post-development flow. The flow is then discharged to Back Cove/the ocean, and the stormwater standards include criteria that allows for a waiver in this scenario. I checked in with Brad, who has been working with the applicant on the design, and he said they are providing him with what he's asked for out here, and he's comfortable with that waiver.

Brad did note, that the system won't drain when the tide is up to the outfall. There's a tide-flex valve in place, so it shouldn't backwater in from Back Cove, but water won't be able to get out. I'm guessing they may have already thought about this, but it would be worth mentioning to the Applicant.

If you have any questions, let me know. I'm headed out of the office for a site visit, but you can reach me on my cell phone.

[Quoted text hidden]



Christian Roadman <croadman@portlandmaine.gov>

95 Front Street - Final Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Fri, Jul 19, 2019 at 7:26 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Michael Tremblay <mtremblay@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>

Hi Christian – I have reviewed application materials for the project and offer the following final traffic comments for the project.

- The applicant has prepared an updated traffic evaluation (from September of 2017) and I find it to be acceptable with the following comments:
 - I concur that the project will not add a significant number of new trips to the area roadway system given the project site currently has residential housing units. During the worst-case PM peak hour, 19 new entering and exiting trips are estimated.
 - Given the above noted trip levels a MaineDOT Traffic Movement Permit is not required.
 - The traffic evaluation identified three High Crash Locations in the vicinity of the project along Washington Avenue. The applicant shall conduct an evaluation of the High Crash Locations to identify patterns and contributing factors and suggest mitigation strategies for improving safety. The City would like to gain an understanding of safety issues so that either current or future projects can address these problem areas. I want to emphasize that the request is only for identifying suggested mitigation strategies, not implementation.
 - Neighborhood traffic management and calming has been a topic of concern for residents of the area. One specific concern raised is vehicle speeding on West Presumpscot Street as motorists try to catch the green traffic signal phase at Washington Avenue. To address this specific issue, the applicant shall be responsible for retrofitting the traffic signal heads on the West Presumpscot Street approach with louvers or other approved equipment such that the green traffic signal indicators are not visible far from the intersection. The installation shall comply with requirements in the Manual on Uniform Traffic Control Devices and be approved by the City.
- The applicant has provided supplemental information as it relates to the Construction Management Plan. I find the information to be acceptable but would note the following:
 - Final details and specifications of the plan will be reviewed at the Pre-Construction Meeting.
 - All pedestrian facilities shall meet ADA requirements.
 - Construction sequencing for each phase, with time durations, shall be provided. It should be noted that when possible sidewalks/on-street parking and other infrastructure shall be reopened when feasible.
 - The plan assumes all contractor parking will be provided on-site and provisions shall be in place to ensure this occurs.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

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[Twitter](#) | [Facebook](#) | [LinkedIn](#) | [Instagram](#)



CITY OF PORTLAND
Department of Public Works
Christopher C. Branch, P.E., Director

Date: June 18, 2019

Re: Wastewater Capacity Authorization

Address: 95 Front Street

Applicant: Portland Housing Authority

Planner: Christian Roadman

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows	
Existing flow to be removed	
Unknown flows from the 19 existing buildings will be removed as part of the demolition however no information has been provided as to the volumes.	
Proposed flow	
Proposed flows as detailed on the attached table provided by Ransom Consulting, Inc.	
Net Change	+ 22,310
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition	

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. Although the entire proposed volume has been accepted it is recognized that there will be a reduction based on the demolition of the 19 existing buildings onsite.

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,

CITY OF PORTLAND

Bradley A. Roland, P.E.
 Senior Project Engineer

Wastewater usage calculations:

Building # 1				
3	1 Bedroom Unit	X	120 gpd	= 360
3	2 Bedroom Unit	X	180 gpd	= 540
4	3 Bedroom Unit	X	270 gpd	= 1,080
3	4 Bedroom Unit	X	360 gpd	= 1,080
1	5 Bedroom Unit	X	450 gpd	= 450
Community Room (1946sf, 15sf/occupant)				
130	Occupants	X	5 gpd	= 650
Building # 1 Subtotal				4,160

Building # 2				
3	1 Bedroom Unit	X	120 gpd	= 360
4	2 Bedroom Unit	X	180 gpd	= 720
3	3 Bedroom Unit	X	270 gpd	= 810
3	4 Bedroom Unit	X	360 gpd	= 1,080
Building # 2 Subtotal				2,970

Building # 3				
5	1 Bedroom Unit*	X	120 gpd	= 600
1	2 Bedroom Unit	X	180 gpd	= 180
11	3 Bedroom Unit	X	270 gpd	= 2,970
2	4 Bedroom Unit	X	360 gpd	= 720
1	5 Bedroom Unit	X	450 gpd	= 450
Building # 3 Subtotal				4,920

*Includes studio units.

Building # 4				
3	1 Bedroom Unit	X	120 gpd	= 360
4	2 Bedroom Unit	X	180 gpd	= 720
4	3 Bedroom Unit	X	270 gpd	= 1,080
2	4 Bedroom Unit	X	360 gpd	= 720
Building # 4 Subtotal				2,880

Building # 5				
39	1 Bedroom Unit	X	120 gpd	= 4,680
6	2 Bedroom Unit	X	180 gpd	= 1,080
Building # 5 Subtotal				5,760

Building # 6				
6	2 Bedroom Unit	X	180 gpd	= 1,080
Building # 5 Subtotal				1,080

Building # 7				
2	3 Bedroom Unit	X	270 gpd	= 540
Building # 5 Subtotal				540

Total Usage:			22,310	gpd
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Christian Roadman <croadman@portlandmaine.gov>

95 Front Street - Remaining bumpout

1 message

Mike Tremblay <mtremblay@portlandmaine.gov>

Wed, Jul 17, 2019 at 9:35 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Tom Errico <thomas.errico@tylin.com>, Bruce Hyman <bhyman@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>

Christian,

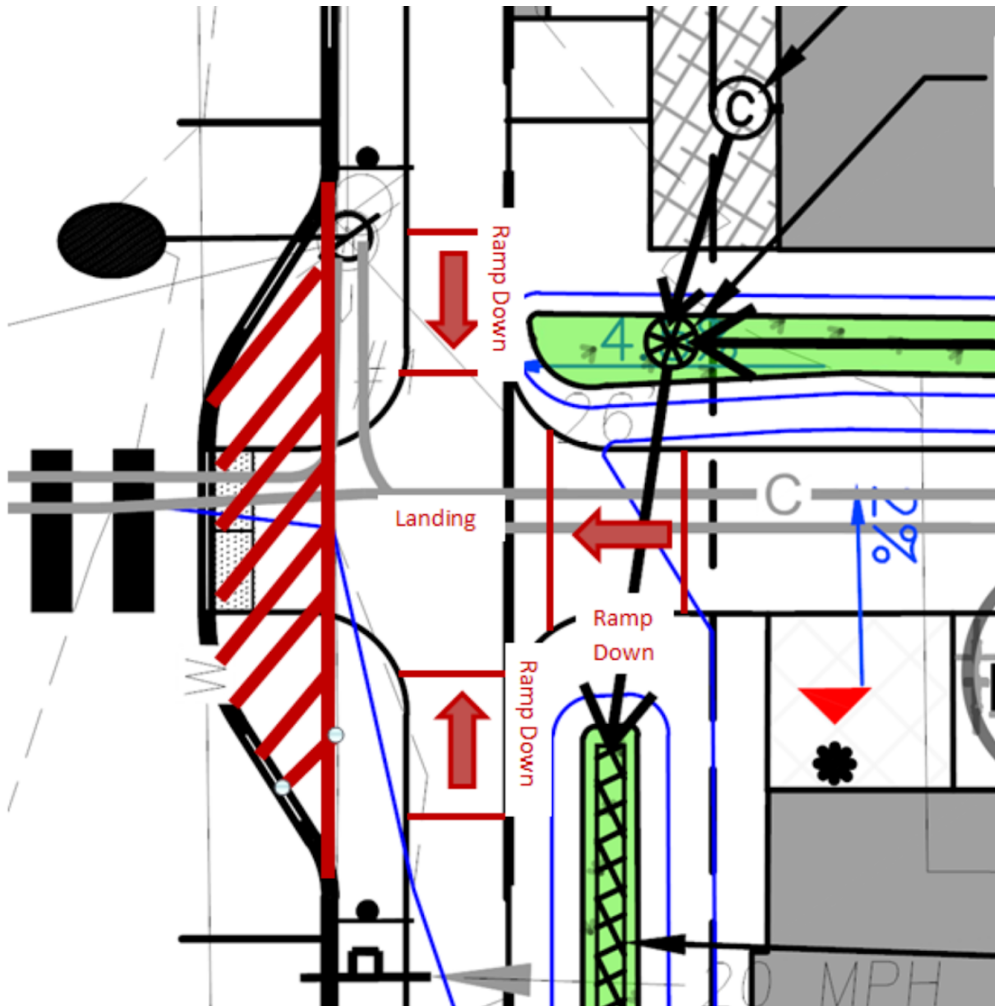
As I mentioned in the Dev Rev meeting, the remaining curb extension at 95 Front Street will only be acceptable to DPW if it is absolutely required for ADA ramps.

The grading plan does not have spot grades in the area of the curb extension, so DPW is unable to confirm that this bump-out is necessary for ADA. We'd like the applicant to consider the following scheme if a traditional ramp is not possible at this location. The leading sidewalks could ramp down ahead of a central landing at the crosswalk itself; see image below.

Please ask the Applicant to redesign the plan as depicted below, or another way that removes the curb extension; otherwise, provide documentation that these schemes will not work and a curb extension is required.

I will conduct a more thorough review today, but I wanted to get this piece moving as I know it is critical.

Thanks,
Mike



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



95 Front Street - Additional comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Jul 18, 2019 at 1:01 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Christian,

Some additional comments on 95 Front Street, aside from the curb extension question which I'm still working on:

- The applicant shows a series of sawcuts on West Presumpscot Street. In the section between the Building 7 driveway and the northern edge of the Phase 2 frontage, the sawcut area exceeds the pavement area to remain. DPW requires that all of the utility trenches in this vicinity be repaired as one trench.
- Parking should be shown as remaining along the south side of Front Street, with the exception of the intersection with West Presumpscot Street, where parking restrictions will be needed for emergency vehicle access.
- Spot grades are not given for many of the points of interest in the plans, including at curb ramps, intermittently along sidewalks, etc. DPW cannot confirm that ramps are ADA-compliant as drawn without spot grades. All sidewalks shall be designed with no more than a 2% cross-slope, and a target cross-slope of 1.5% is recommended to allow for construction tolerance. Detailed ramp designs for each location should be coordinated with DPW as a condition of approval.
- DPW recommends that fluorescent pedestrian warning signs (MUTCD W11-2) with associated arrow placards be placed at the mid-block crossing location on West Presumpscot Street to draw additional attention to this crossing location. The Applicant may consider using a flashing sign (TAPCO or similar) to further enhance visibility.
- DPW will continue to explore possible traffic control interventions that may help to reduce the likelihood that vehicles may speed northbound on West Presumpscot Street toward Washington Street, including signal phasing changes at Washington Street, optically programming the signal indications, reversing the two-way stop control at Issley Street, and others. DPW is optimistic that the building layout and added street trees will visually narrow the street and encourage slower traffic speeds. We will continue to monitor this street, receive feedback, and consider alternatives going forward.

-Mike

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



95 Front Street - Additional comments

Mike Tremblay <mtremblay@portlandmaine.gov>
To: Christian Roadman <croadman@portlandmaine.gov>

Thu, Jul 18, 2019 at 1:11 PM

One more:

- The applicant will need a waiver for the number of proposed compact spaces.

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



On Thu, Jul 18, 2019 at 1:01 PM Mike Tremblay <mtremblay@portlandmaine.gov> wrote:
Christian,

Some additional comments on 95 Front Street, aside from the curb extension question which I'm still working on:

- The applicant shows a series of sawcuts on West Presumpscot Street. In the section between the Building 7 driveway and the northern edge of the Phase 2 frontage, the sawcut area exceeds the pavement area to remain. DPW requires that all of the utility trenches in this vicinity be repaired as one trench.
- Parking should be shown as remaining along the south side of Front Street, with the exception of the intersection with West Presumpscot Street, where parking restrictions will be needed for emergency vehicle access.
- Spot grades are not given for many of the points of interest in the plans, including at curb ramps, intermittently along sidewalks, etc. DPW cannot confirm that ramps are ADA-compliant as drawn without spot grades. All sidewalks shall be designed with no more than a 2% cross-slope, and a target cross-slope of 1.5% is recommended to allow for construction tolerance. Detailed ramp designs for each location should be coordinated with DPW as a condition of approval.
- DPW recommends that fluorescent pedestrian warning signs (MUTCD W11-2) with associated arrow placards be placed at the mid-block crossing location on West Presumpscot Street to draw additional attention to this crossing location. The Applicant may consider using a flashing sign (TAPCO or similar) to further enhance visibility.
- DPW will continue to explore possible traffic control interventions that may help to reduce the likelihood that vehicles may speed northbound on West Presumpscot Street toward Washington Street, including signal phasing changes at Washington Street, optically programming the signal indications, reversing the two-way stop control at Issley Street, and others. DPW is optimistic that the building layout and added street trees will visually narrow the street and encourage slower traffic speeds. We will continue to monitor this street, receive feedback, and consider alternatives going forward.

-Mike

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



Front Street Redevelopment: 672-2019 - Pre-Public Hearing Comments, Public ROW/Other

2 messages

Bruce Hyman <bhyman@portlandmaine.gov>

Tue, Jul 16, 2019 at 4:40 PM

To: Christian Roadman <croadman@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, Michael Tremblay <mtremblay@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Cc: Helen Donaldson <hcd@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>, Caitlin Cameron <ccameron@portlandmaine.gov>

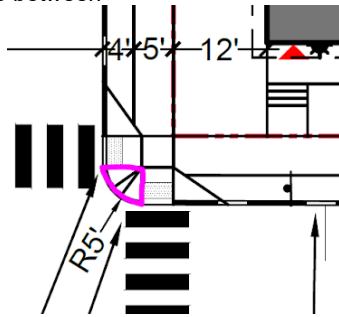
Some thoughts on the revised Site Plan and others before tomorrow's DevRev209Edition:

L3.0 Site Details

- Item 7 Detectable Warning - the graphic is correct (cast iron) but the NOTES: section refers to the composite ADA Tile panels still

Site Plan (and Photometric Plan)

- The crosswalk across Front Street to Payson Park does not look like it has enough illumination (≤ 0.1 FC, eg)
- Should westerly curb ramp on W. Presumpscot be 8' wide too?
- Add note: "Parking on the Payson Park side of Front Street at the intersection with W. Presumpscot Street will be adjusted based upon field test with Fire Dept. apparatus"
- The site plan makes reference to the cobra head lights still needing replacement along Front Street - is this not done yet?
- I think the curb ramp design at the corner of W. Presumpscot/Front Streets should be redesigned to use return (granite) curbs rather than small flares with a small piece ($< 4'$) granite between



- The response letter alludes to no changes to on-street parking on W. Presumpscot St but shows No Parking signs/no parking along the Bldg 7 frontage to Illsley St
- The Phase III bike racks are poorly placed out back - they should be logically placed in a visible location possibly along the internal walkway and W. Presumpscot frontage of Bldg 6

--

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



Christian Roadman <croadman@portlandmaine.gov>
To: Bruce Hyman <bhyman@portlandmaine.gov>

Tue, Jul 16, 2019 at 5:05 PM

Thank you!

--

Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101

[Quoted text hidden]



PLAN CORRECTIONS REPORT PL-000672-2019 FOR CITY OF PORTLAND

PLAN ADDRESS:	95 Front St Portland, ME 04103	PARCEL:	167 E001001
APPLICATION DATE:	05/21/2019	SQUARE FEET:	0.00
EXPIRATION DATE:		VALUATION:	\$0.00
DESCRIPTION: Redevelopment of 4.28 Acres containing 50 rental apartments and one single family home at the corner of Front Street and West Presumpscot Streets, to provide 60 units of family apartments, 45 units of senior housing, and 8 townhouse home ownership units.			

CONTACTS	Name	Company	Address
Agent/Representative	Patrick Carroll	Carroll Associates, Landscape Architects	217 Commercial Street Suite 200 Portland, ME 04101

Comments & Corrections Required

City Arborist	Jeff Tarling
Civil Engineering - Third Party Reviewer	Lauren Swett
DPW Document Review	Bill Scott
DPW Engineering	Mike Tremblay

Comment(s)/ Recommendation(s):

1. (General): The bump-outs proposed for this project are not recommended by DPW. Bump-outs create additional maintenance that must be taken on by DPW, and represent challenges to turning vehicles. The Applicant should fill out curb extension applications (Christian R to provide) for each location (multiple curb extensions in a single location can be combined into one application). Curb extensions should be reserved for locations where pedestrian safety can be significantly improved; ADA ramps can be provided where they would not otherwise fit; at signalized intersections where pedestrian crossing distances can be significantly reduced; and where identified as part of a larger transportation plan. The Applicant is welcome to list any other reasons for wanting to provide bump-outs at each location. The Applicant is encouraged to submit a site plan with bump-outs removed, so ADA ramps within the sidewalk footprint can be evaluated.
2. (General): If any bump-outs are approved for this project, they should be properly sized. Bump-outs within a parking lane should extend no more than six (6) feet from the extension of the curb line; this frames the parking lane such that the bump-out does not extend as far as parked cars, adequately protecting the parking lane without constricting the travel lanes. Bump-outs at intersections should have appropriate radii such that the appropriate design vehicle (typically a large box truck) can make turns without crossing the centerline, and where a fire truck can make turns using the entire street width. The bump-outs on Front Street appear to protrude about 9 feet from the curb line.
3. (General): The plans appear to show a raised crosswalk across West Presumpscot Street. DPW does not support the use of raised crosswalks on local streets.
4. (Site Plan): Sidewalks are shown as 6 feet, with ~2 feet between the back of sidewalk and the property line. Sidewalks should be built for the entire width of the right-of-way, or should be designed as 5 feet wide with an esplanade between the sidewalk and curb (2 feet minimum, 4 feet preferred).
5. (Site Plan): Parking signage on public streets shall be city standard.
6. (Site Plan): At the small driveway leading to the 8-space parking area between Buildings 6 and 7 should be designed with the ADA sidewalk continuing through the driveway, and a driveway apron (10% max slope). Note that the sidewalk will need to be widened to the ROW line in order to provide an apron and a 5-foot pedestrian walkway. The pedestrian walkway should be no more than 2% cross-slope through the driveway.
7. (Site Plan): New curb ramps are shown at the intersection of West Presumpscot and Issley streets. Where new curb ramps are proposed, the opposite curb ramps need to be reconstructed if they are not in compliance or in good condition.
8. (Site plan): The stabilized turf driveway between parking areas is not necessary, per PFD. This should be removed in favor of additional landscaping/screening.
9. (Site plan): While 20% of spaces are permitted to be compact spaces, use of 8-foot compact spaces is discouraged.
10. (Utilities): The extent of utility connections into West Presumpscot Street appear to be substantial. The Applicant should show the extent of roadway trenches and repair.
11. (Utilities): There is a sewer easement on the east parcel, where light fixtures are proposed. Water Resources should confirm that light fixtures are not an issue in a sewer easement.
12. (Utilities): Some utility structures are located within the wheel path of vehicles. This should be avoided; if possible, utility structures should be placed along the curb line, within the centerline, or in the center of travel lanes so that they may be avoided by motorists, especially when the roadway is milled and utility structures are raised.
13. (Utilities): Verify that proposed stormdrain sizes are appropriate. Note that the system currently drains to a CSO, so "oversizing" stormdrain inlets is not necessarily inappropriate. Verify that utility crossings are possible given pipe sizes.
14. (Utilities): If bump-outs are removed or altered, reconsider catch basin locations.
15. (Grading): Spot grades are required to verify drainage, driveway dimensions, and ADA conditions. Please provide spot grades at high and low points, points of inflection, the top and base of curbs at regular intervals (including at inflection points at tipdowns and ramps), and anywhere else where they may be helpful.
16. (Grading): Are any curbs being removed and reset? If so, curbs should be reset in a concrete foundation; DPW can provide detail if necessary.

DPW Water Resources Compliance

Benjamin Pearson

DPW Water Resources Engineering

Brad Roland

Fire

Robert Thompson

Comment(s)/ Recommendation(s):

The main entrance of each building must be the address for the property as approved by the City E-911 Addressing Officer.

Please verify on-street parking will be limited to the North side of Front Street. Parking on both sides of the street would greatly impede, if not eliminate, access to emergency apparatus.

Please provide a drawing depicting the emergency vehicle turning template so we can evaluate the impact to parking on the Southern side of Front Street.

Planning

Christian Roadman

Traffic - Third Party Reviewer

Tom Errico

Transportation/Planning

Bruce Hyman

95 Front Street Landscape Plan (95 Front Street, PL-000672-2019)

Jeff Tarling <jst@portlandmaine.gov>

Fri, Jul 19, 2019 at 12:05 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Hi Christian -

I have reviewed the proposed 95 Front Street tree and landscape plan and offer the following recommendations & conditions:

a) Street trees - the proposed tree & landscape plan offers extensive number of street trees compared to existing conditions. We feel that street trees and the environmental and aesthetic values are a significant topic for this project. We have the following recommendations on street trees -

1) the proposed Tuliptree species is likely too large a tree type to grow in an esplanade situation, and would suggest an alternative tree type, perhaps 'Armstrong' Red Maple or similar 'Bowhall' Red Maple that will give some height without a wide crown spread and should grow better as a medium vs large shade tree given the narrow esplanade width.

2) "Ideally", the proposed 'Accolade' Cherry trees proposed for West Presumpscot Street could be moved to the back of sidewalk on the building side to offer shade which in turn would help keep these units cooler during the summer months. (we visited the site recently and noticed the positive effect of having the one large existing maple on the back of sidewalk noticed the buildings in the shade and residents sitting on the porch steps vs in the full afternoon sun) The cherry trees proposed do add buffering and spring bloom to the site, the esplanade width was undetermined at the time of this review but we would look for a 4' width minimum. We can work with the project team to adjust species and placement as the project proceeds. The current tree numbers as mentioned are adequate. Our common goal is to provide a good grow space and root zone for these future trees.

b) Parking lot and internal landscape treatment - The project proposes adequate numbers of trees and landscape, we do see some adjustment on the right side of Front Street the parking screening should be increased from Front Street. This might include tighter tree spacing or species adjustment, as mentioned above this detail is minor in nature and we can work with the project team to field adjust as needed. On the parking lot on left side of Front Street the 3 trees could be placed slightly away from the drive edge if winter snow storage is needed.

Overall the plan looks acceptable as shown with the mentioned conditions.

Thanks,

Jeff

Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities Department
Forestry & Horticulture

212 Canco Road
Portland, ME. 04103
(207) 808-5446
jst@portlandmaine.gov

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Planning and Urban Development Department Planning Division

Subject: R-5 PRUD Design Review – 95 Front Street
Written by: Caitlin Cameron, Urban Designer
Date of Review: Monday, July 15 2019

The planned residential unit development project at 95 Front Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Christian Roadman, Planner against the standards of the *Planned Residential Unit Developments in the R5 Residential Zones* (Section (h) of the Design Manual).

Considerations for the Planning Board:

The staff raise the following comments/concerns:

- Materials + Character – board and baton, shingle, natural wood are rural in character. The standard requires new development to be cohesive within the development but to also complement the existing neighborhood. **Does the Board find the use of these materials to complement the residential neighborhood (predominantly painted clapboard)? Does the character and façade composition of these buildings sufficiently relate and complement the traditional residential context?**
- External buffers – **Is the Board satisfied with the level of buffer provided between the development and neighboring properties?**
- Internal Buffers - **There is little to no privacy or buffer provided between Buildings 6 & 7 and the surface parking. The surface parking is not screened from the residential buildings 6, 7.**

Design Review Comments:

(h) Planned Residential Unit Development (PRUDs) in the R-5 Residential Zones

Standard (1) a. Design Relationship to the Site

Building placement is responsive to the site conditions which are urban residential. The site fronts onto Front Street and Payson Park with a narrow local street, West Presumpscot Street bisecting the project, and Illsley Street makes the third boundary. There are some edges that abut residential properties. The overall layout, including building placement, roadway and drive location, creates a more contextual building relationship to the street than is existing. The layout also provides internal walkways and landscaped open spaces that provide buffers between buildings and are designed in a way that they are likely to be comfortable and functional. The building orientation gives priority to the street (rather than solar orientation) which is appropriate in this case. The residential buildings in this context have front yards of varying depths and predominantly single-family homes – the proposed layout is sensitive to the scale, placement, and orientation of that context and sensitively places these larger, longer buildings into the existing fabric. Most units create front yards and stoops to interface with the street in a similar way to the residential neighbors.

Standard (1) b. Internal Design Character and Relationship to the Surrounding Neighborhood

Context – The surrounding neighborhood is predominantly residential with occasional multi-family buildings, but mostly early 20th century single-family homes.

- Form and Scale: The project strategically varies the massing of the multi-family buildings between three and two-story units and roof form variations to break the larger buildings into a scale similar to the surrounding residential forms. The standard calls for variation in roof and façade character which these designs successfully deliver. In some cases, the massing variation appears to replicate the proportions and rhythm of multi-family buildings nearby (triple-deckers and double triples). This is most successful at West Presumpscot and Illsley Streets. The perspective renderings help illustrate how these masses, forms, and roof lines relate to the variety of buildings around.
- Character: The overall design character is cohesive. Multi-family buildings should not be expected to mimic single-family homes. Though the buildings in the context vary quite a bit in style, scale, form, and era, there are certain features that add a fine-grain texture to generally simple buildings – simple material palette with clapboard/shingle, porch and railing details, overhanging cornice lines and trim – **that add articulation and a residential character that is currently lacking in the Phase I and Phase III designs.** Stoops were revised to contribute to the residential character and comfort.
- Façade Composition: Two and three story heights are an appropriate scale for this neighborhood. Because the project differs from the residential context in form and scale, the character of the exterior facades should meet the standard to complement the existing neighborhood. This is achieved to a degree with fine grain materials are used, stoops and balconies provide some articulation and architectural elements. **Some of the materials proposed are rural in character – do these complement the urban neighborhood?**

Standard (1) c. Recreation and Open Space

1. External buffers: To some extent, the project provides landscaping buffers between surface parking areas and neighboring properties with fence, trees, and arborvitae. **The applicant does not extend the screening for the whole stretch of the property line and instead relies on meadow plantings for this buffer. Staff suggest additional screening may be needed between the surface parking areas and the neighboring residential properties.**
2. Internal buffers: Units have a front yard buffer with setback, stoops, and plantings between living space and walkways/streets. A street tree is provided in front of some units between the building and the street. In most cases there is a landscape buffer or street between each building. **Buildings 6 and 7 do not have the required privacy between the back of the units and the surface drive and parking. Staff request the Planning Board weigh in on whether additional efforts should be made to provide internal buffers between these units and the parking area.**
3. Passive recreational open space: Lawn, tree bosque, and some landscape seating areas at the community centers are provided throughout the site. Some seating was added.
4. Active recreational open space: A playground and recreation lawn areas are provided. There will also be a pedestrian connection to the neighboring Payson Park.
5. Private open spaces: Most units have stoops and small planted areas adjacent to their frontage. Stoops were revised in some locations for privacy and comfort. **Building 7 does not appear to have private open space.**

95 Front Street: Waiver Requests

3 messages

Christian Roadman <croadman@portlandmaine.gov>

Fri, Jul 19, 2019 at 9:08 AM

To: Tom Errico <thomas.errico@tylin.com>, Michael Tremblay <mtremblay@portlandmaine.gov>

Hello Tom and Mike,

The applicant for this project is requesting several waivers which I need one or the other of you to support (assuming you do). Please see the attached waiver table. Can one of you give me support (again, assuming you do) for the driveway width, parking lot aisle width, and compact parking spaces percentage?

Thanks!
Christian

--
Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101



Waiver-Table 071719.pdf
151K

Mike Tremblay <mtremblay@portlandmaine.gov>

Fri, Jul 19, 2019 at 9:29 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Tom Errico <thomas.errico@tylin.com>

Christian,

We will support all three waiver requests.

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



[Quoted text hidden]

Christian Roadman <croadman@portlandmaine.gov>
To: Mike Tremblay <mtremblay@portlandmaine.gov>
Cc: Tom Errico <thomas.errico@tylin.com>

Fri, Jul 19, 2019 at 9:39 AM

Thank you!

--

Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101

[Quoted text hidden]

Front Street Targeting																	
PHASE 1 Family rental			PHASE 2 Senior Rental			PHASE 3 Homeownership			TOTAL								
Unit Size	Targeting	# Units	Unit Size	Targeting	# Units	Unit Size	Targeting	# Units		IZ units (<100% AMI)	IZ units (<120% AMI)	Market units					
0BR units	50% AMI	2	0BR units	50% AMI	0				2	2							
	60% AMI	0		60% AMI	0				0								
	Market Rate	0		Market Rate	0				0								
1BR units	50% AMI	3	1BR units	50% AMI	24				27	27		16					
	60% AMI	0		60% AMI	8				8	8							
	Market Rate	9		Market Rate	7				16								
2BR units	50% AMI	5	2BR units	50% AMI	4	2BR units			9	9							
	60% AMI	4		60% AMI	0				4	4							
3BR units	Market Rate	3		Market Rate	2				4		4	7					
	50% AMI	22							3BR units					4	4		
	60% AMI	0												Market Rate	2	7	
														60% AMI	0	0	0
														120% AMI	2	2	
4BR units	Market Rate	0							0								
	50% AMI	10							Market Rate	0			0	0			
	60% AMI	0															
5BR units	Market Rate	0							10	10							
	50% AMI	1															
	60% AMI	1															
	Market Rate	0							1	1							
TOTAL		60			45			8	113	84	6	23					

107

~~XXXXXXXXXXXXXXXXXXXXXNOTHINGUNDER THE LAWS OF THE STATE~~

ANDY KATKIN

~~In the County of~~ and State of

paid by the PORTLAND HOUSING AUTHORITY, a public body, corporate and politic, existing under the laws of the State of Maine, located at Portland in said County and State

release, bargain, sell and convey and Forever Quit-Claim unto the said Portland Housing Authority, its successors

~~whereas~~ and assigns forever.

two (2) certain lots or parcels of land located in the City of Portland,
bounded and described as follows:

Beginning at an iron pipe at the northeast corner of Cummings Street and Front Street, thence southeasterly along the northerly street line of Front Street, a distance of 450.12 feet to an iron pipe at the northwest corner of Front Street and Presumpscot Street; thence northeasterly along the westerly street line of Presumpscot Street and making an included angle of 90° 00' with the northerly street line of Front Street, a distance of 100.00 feet to an iron pipe; thence northwesterly and making an included angle of 90° 00' with the southerly direction of the westerly street line of Presumpscot Street, a distance of 150.00 feet to an iron pipe; thence northeasterly and making an included angle of 90° 00' with the southeasterly direction of the last described course, a distance of 75.00 feet to an iron pipe; thence northwesterly and making an included angle of 90° 00' with the southwesterly direction of the last described course, a distance of 150.00 feet to an iron pipe; thence northeasterly and making an included angle of 90° 00' with the southeasterly direction of the last described course, a distance of 25.00 feet to an iron pipe; thence northwesterly and making an included angle of 90° 00' with the southwesterly direction of the last described course, a distance of 150.00 feet to an iron pipe and an intersection with the easterly street line of Cummings Street; thence southwesterly along the easterly street line of Cummings Street and making an included angle through the south of 90° 01' with the southeasterly direction of the last described course, a distance of 200.00 feet to an iron pipe and an intersection with the northerly street line of Front Street and the point of beginning, containing about 71,271 square feet.

Also, beginning at an iron pipe at the northeast corner of Presumpscot Street and Front Street, thence southeasterly along the northerly street line of Front Street, a distance of 297.25 feet to an iron pipe; thence northeasterly and making an included angle through the north of 90° 15' with the northwesterly direction of the northerly street line of Front Street, a distance of 250.00 feet to an iron pipe; thence northwesterly and making an included angle through the west of 89° 45' with the southwesterly direction of the last described course, a distance of 39.56 feet to an iron pipe; thence northeasterly and making an included angle of 90° 00' with the southeasterly direction of the last described course, a distance of 100.00 feet to an iron pipe and an intersection with the southerly street line of Iilsley Street; thence north westerly along the southerly street line of Iilsley Street and

making an included angle of 90° 00' with the southwesterly direction of the last described course, a distance of 258.79 feet to an iron pipe and an intersection with the easterly street line of Presumpscot Street; thence southwesterly along the easterly street line of Presumpscot Street and making an included angle of 90° 00' with the southeasterly direction of the southerly street line of Illsley Street, a distance of 350.00 feet to an iron pipe and intersection with the northerly street line of Front Street and the point of beginning, containing about 100,329 square feet.

Reserving to the Grantor a Right-of-Way on the easterly side of said above described parcel for future sewer construction, bounded and described as follows:

Beginning at an iron pipe on the northerly street line of Front Street, said iron being distant 297.25 feet southeasterly along the northerly street line of Front Street from the iron pipe at the northeast corner of Front Street and Presumpscot Street, thence northwesterly along the northerly street line of Front Street, a distance of 38.46 feet to a point; thence northeasterly and making an included angle of 90° 00' with the southeasterly direction of the last described course, a distance of 250.00 feet to an iron pipe; thence southeasterly and making an included angle of 90° 00' with the southwesterly direction of the last described course, a distance of 39.56 feet to an iron pipe; thence southwesterly and making an included angle through the northwest of 89° 45' with the northwesterly direction of the last described course, a distance of 250.00 feet to an iron pipe and an intersection with the northerly street line of Front Street and the point of beginning.

And to enter upon said Right-of-Way at any and all times for the foregoing purpose, reserving to the Grantee, its successors and assigns, the use and enjoyment of said Right-of-Way for such purposes as will in no way interfere with the perpetual use thereof by the Grantor, its successors and assigns for the foregoing purpose, provided that no building or any kind of permanent structure shall be erected on said Right-of-Way by the Grantee, its successors or assigns.

Said lots or parcels of land being portions of the premises conveyed to the Grantor by deed of Carrie M. Dyer, dated April 24, 1929, recorded in the Cumberland County Registry of Deeds in Book 1316, Page 223.

~~On and to hold~~ the same, together with all the privileges and appurtenances thereunto belonging, to it the said Portland Housing Authority, its successors

~~Heirs and Assigns~~ forever.

And the said Grantor Corporation does ~~return~~ with the said Portland Housing Authority, its successors

~~Heirs and Assigns~~, that it will ~~Warrant and Arrure~~ defend the premises to it the said Grantee, its successors

~~Heirs and Assigns~~ forever, against the lawful claims and demands of all persons claiming by, through, or under it.

In Witness Whereof, the said CITY OF PORTLAND

has caused this instrument to be sealed with its corporate seal and signed in its corporate name by JOHN G. DE PALMA,

. its Director of Finance

thereunto duly authorized, this 5th day of November in the year one thousand nine hundred and Seventy.

Signed, Sealed and Delivered
in presence of

Patricia E. Meady

CITY OF PORTLAND

By

John G. De Palma
Director of Finance



State of Maine.

CUMBERLAND

ss.

November 5 1970 .

Personally appeared the above named JOHN G. DE PALMA, Director of Finance

of said Grantor Corporation

as aforesaid, and acknowledged the foregoing instrument to be his
free act and deed in his said capacity, and the free act and deed of
said corporation.

Before me,

Patricia E. Meady
Justice of the Peace
Natany L. DePalma

NOV 9 1970

REGISTRY OF DEEDS CUMBERLAND COUNTY, MAINE
Received at 1 H 14 M P.M. and recorded in

BOOK 3150 PAGE 101 *Margaret L. DePalma* Deputy Register

Know All Men by these Presents,

THAT We, William C. King and Nancy S. King, both of Westford, County of Middlesex, Commonwealth of Massachusetts
in consideration of Twenty Thousand and 00/100 (\$20,000.00)

paid by CASCO BANK & TRUST COMPANY, a banking institution duly organized and existing by law and having a principal place of business at Portland in the County of Cumberland and State of Maine.

the receipt whereof is hereby acknowledged, do hereby give, grant, bargain, sell and convey, unto the said CASCO BANK & TRUST COMPANY, its Successors and Assigns, forever, the following described real estate, with the buildings and improvements now or hereafter situated thereon:

The following parcel of land, situated in Bridgton, County of Cumberland, State of Maine, being cottage lot #69 (Sixty-nine) in the Knights Hill Subdivision, so-called, as depicted on plan entitled "Subdivision Plan of Knights Hill Section I" surveyed by Earl Hotchkiss, Registered Land Surveyor, dated January 3, 1969, duly recorded in Cumberland County Registry of Deeds, Plan Book 78, Page 32, reference to which is made for more particular description of the cottage lot hereby conveyed.

This conveyance is intended to include the same appurtenances, and to be subject to the same use restrictions, easements and covenants as set forth or referred to in our deed of said premises from Knights Hill Corporation, ~~as set forth in our deed of said premises~~ and to be duly recorded in said Registry of Deeds, in Book 3123, Page 282.

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3221
240

Also, beginning at an iron pipe at the northeast corner of Presumpscot Street and Front Street; thence southeasterly along the northerly street line of Front Street, a distance of two hundred ninety-seven and twenty-five hundredths (297.25) feet to an iron pipe; thence northeasterly and making an included angle through the north of 90° 15' with the northwesterly direction of the northerly street line of Front Street, a distance of two hundred fifty (250) feet to an iron pipe; thence northwesterly and making an included angle through the west of 89° 45' with the southwesterly direction of the last described course, a distance of thirty-nine and fifty-six hundredths (39.56) feet to an iron pipe; thence northeasterly and making an included angle of 90° 00' with the southeasterly direction of the last described course, a distance of one hundred (100) feet to an iron pipe and an intersection with the southerly street line of Illsley Street; thence northwesterly along the southerly street line of Illsley Street and making an included angle of 90° 00' with the southwesterly direction of the last described course, a distance of two hundred fifty-eight and seventy-nine hundredths (258.79) feet to an iron pipe and an intersection with the easterly street line of Presumpscot Street; thence southwesterly along the easterly street line of Presumpscot Street and making an included angle of 90° 00' with the southeasterly direction of the southerly street line of Illsley Street, a distance of three hundred fifty (350) feet to an iron pipe and the intersection with the northerly street line of Front Street and the point of Beginning, containing about 100,329 square feet.

Reserving to the City of Portland a right of way on the easterly side of said above described parcel for future sewer construction, bounded and described as follows:

To have and to hold, the aforegranted and bargained premises with all the privileges and appurtenances thereof to the said

PORTLAND HOUSING AUTHORITY

its successors

~~hereby~~ and assigns, to it and their use and behoof forever.

And the said Grantor Corporation does hereby COVENANT with the

said Grantee, ^{its successors}
~~hereby~~ and assigns, that it is lawfully seized in fee of the premises, that they are free of all incumbrances;

that it has good right to sell and convey the same to the said

Grantee to hold as aforesaid; and that it and its successors,

shall and will WARRANT AND DEFEND the same to the said Grantee,

^{successors}
its ~~hereby~~ and assigns forever, against the lawful claims and demands of all persons.

836
Beginning at an iron pipe on the northerly street line of Front Street, said iron being distant two hundred ninety-seven and twenty-five hundredths (297.25) feet southeasterly along the northerly street line of Front Street from the iron pipe at the northeast corner of Front Street and Presumpscot Street, thence northwesterly along the northerly street line of Front Street, a distance of thirty-eight and forty-six hundredths (38.46) feet to a point; thence northeasterly and making an included angle of 90° 00' with the southeasterly direction of the last described course, a distance of two hundred fifty (250) feet to an iron pipe; thence southeasterly and making an included angle of 90° 00' with the southwesterly direction of the last described course, a distance of thirty-nine and fifty-six hundredths (39.56) feet to an iron pipe; thence southwesterly and making an included angle through the northwest of 89° 45' with the northwesterly direction of the last described course, a distance of two hundred fifty (250) feet to an iron pipe and an intersection with the northerly street line of Front Street and the point of beginning.

And for the said City of Portland to enter upon said right of way at any and all times for the foregoing purpose, reserving to the Grantee, its successors and assigns, the use and enjoyment of said right of way for such purposes as will in no way interfere with the perpetual use thereof by the City of Portland, its successors and assigns for the foregoing purpose, provided that no building or any kind of permanent structure shall be erected on said right of way by the Grantee, its successors or assigns.

The Grantee herein, by the acceptance of this deed, hereby acknowledges that STIRLING HOMEX CORPORATION has fully performed all of the conditions set forth in a deed from the PORTLAND HOUSING AUTHORITY to STIRLING HOMEX CORPORATION dated December 7, 1970 and recorded in the Cumberland County Registry of Deeds in Book 3179, Page 619, and hereby discharges STIRLING HOMEX CORPORATION from all of the obligations contained in said deed, to wit: that STIRLING HOMEX CORPORATION herein shall, within one (1) year from the date thereof, enter into a valid and binding Department of Housing and Urban Development approved Turn-Key Contract with PORTLAND HOUSING AUTHORITY to build fifty (50) units of modular housing upon the herein described premises in accordance with the plans and specifications approved for PORTLAND HOUSING AUTHORITY Project ME 3-10; and should this condition be broken, or should the construction of said fifty (50) units not be completed within two (2) years from the date hereof, the PORTLAND HOUSING AUTHORITY shall have the option to repurchase said premises for the same consideration received herefor plus a reasonable price for any improvements thereon. Said option shall remain open for a period of six (6) months.

Being the same premises conveyed by the PORTLAND HOUSING AUTHORITY to STIRLING HOMEX CORPORATION by deed dated December 7, 1970 and recorded in the Cumberland County Registry of Deeds in Book 3169, Page 619.

In Witness Whereof, the said STIRLING HOMEX CORPORATION
has caused this instrument to be sealed with its corporate seal
and signed in its corporate name by
REUBEN K. DAVIS, JR., its Vice President
thereunto duly authorized, this 15 day of October
in the year one thousand nine hundred and seventy-one.

Signed, Sealed and Delivered
in presence of

STIRLING HOMEX CORPORATION

By Reuben K. Davis
Its Vice President



State of Maine

County of Cumberland ss. October 15, 1971.

Then personally appeared the above named

REUBEN K. DAVIS, Vice President of said Grantor
Corporation as aforesaid, and acknowledged the foregoing instrument
to be his free act and deed in his said capacity, and the free act
and deed of said corporation.

Before me,

Paul Fisher

Justice of the Peace.

~~Notary Public~~

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE OCT 22 1971
Received at 10 H 12 M A M and recorded in
BOOK 3196 PAGE 834 Walter Hughes Register

WARRANTY DEED
Joint Tenancy
Maine Statutory Short Form

Know all Persons by these Presents,

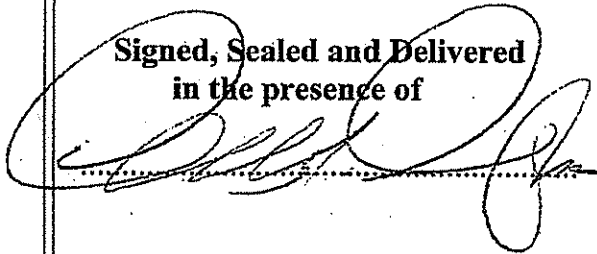
That I, Doris E. Kiley, of Portland, State of Maine, for consideration paid, grant
to:

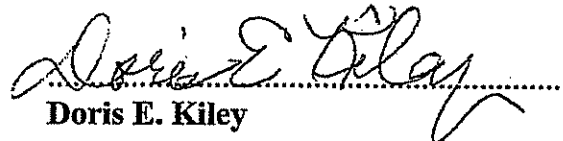
Sharon G. Kiley, Doris E. Kiley, and Sandra M. McLeod
of Portland, County of Cumberland, and State of Maine, whose mailing address is:
35 West Presumpscot Street, Portland, Maine 04103, with **warranty covenants, as joint**
tenants the land in Portland, County of Cumberland, and State of Maine, described as
follows:

A certain lot or parcel of land, together with any buildings and improvements
thereon, situated in the Town of Portland, County of Cumberland, and State
of Maine being more particularly described in Exhibit A attached hereto and
made a part hereof.

Witness my hand and seal this 6th day of May, 2005.

Signed, Sealed and Delivered
in the presence of

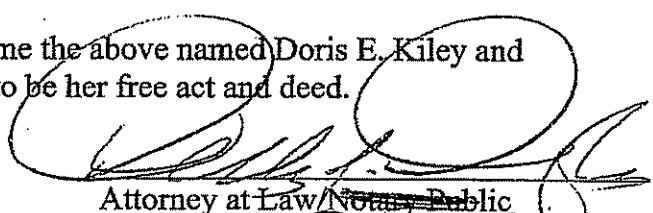



Doris E. Kiley

State of Maine, County of Cumberland ss.

May 6, 2005

Then personally appeared before me the above named Doris E. Kiley and
acknowledged the foregoing instrument to be her free act and deed.


Attorney at Law/Notary Public

Printed Name: Donnelly S. Douglas

Donnelly S. Douglas
Attorney At Law

EXHIBIT A
33 West Presumpscot Street, Portland, Maine

A certain lot or parcel of land, with the buildings thereon, situated on Presumpscot Street, now known as West Presumpscot Street, in the City of Portland, County of Cumberland and State of Maine, and being Lots numbered 133 and 134 on Plan of L. W. Dyer, recorded in the Cumberland County Registry of Deeds in Plan Book 7, Page 2, and being more particularly bounded and described as follows:

Commencing at a point on the northwesterly side of West Presumpscot Street, one hundred and fifty (150) feet southwesterly from Illsley Street;

Thence northwesterly on the southwesterly line of Lots 83, 84, and 85 as shown on above referred to Plan, one hundred and fifty (150) feet to lot number 86;

Thence southwesterly by Lots 86 and 130, one hundred (100) feet;

Thence southeasterly by lot numbered 132, one hundred fifty (150) feet to Presumpscot Street;

Thence northeasterly by West Presumpscot Street, one hundred (100) feet to the point of beginning.

Being the same premises conveyed by warranty deed from Inger Kelsen, also known as Ingeborg Kelsen, also known as Inger A. Kelsen to Thomas J. Kiley and Doris E. Kiley dated December 19, 1958 and recorded in the Cumberland County Registry of Deeds in Book 2452, Page 35. Thomas J. Kiley deceased on December 24, 1990, leaving Doris E. Kiley as surviving joint tenant.

Received
Recorded Register of Deeds
May 10, 2005 01:49:42P
Cumberland County
John B O'Brien

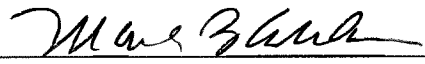
DLN: 1001940053517

WARRANTY DEED
(Maine Statutory Short Form)

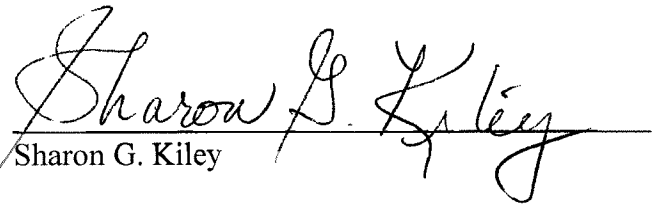
KNOW ALL PERSONS BY THESE PRESENTS, that **SHARON G. KILEY**, an individual with a mailing address of 33 West Presumpscot Street, Portland, Maine 04103 (the "Grantor"), for consideration paid, hereby grants to **PORTLAND HOUSING DEVELOPMENT CORPORATION**, a non-profit corporation with a mailing address of 14 Baxter Boulevard, Portland, Maine 04101, with **WARRANTY COVENANTS**, a certain lot or parcel of land, together with the buildings thereon, situated at 33 West Presumpscot Street in Portland, County of Cumberland, State of Maine, and more particularly described in **Exhibit A** attached hereto and made as part hereof.

Being the same premises conveyed by Warranty Deed from Doris E. Kiley to Doris E. Kiley, Sharon G. Kiley, and Sandra M. McLeod, as joint tenants, dated May 6, 2005, and recorded in the Cumberland County Registry of Deeds in Book 22619, Page 45. Doris E. Kiley deceased on June 19, 2013, and Sandra M. McLeod deceased on June 18, 2016, leaving Sharon G. Kiley as surviving joint tenant.

WITNESS my hand and seal on this 29th day of March, 2019.



Witness



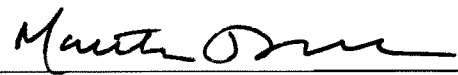
Sharon G. Kiley

STATE OF MAINE
COUNTY OF CUMBERLAND, ss

March 29, 2019

PERSONALLY APPEARED the above-named Sharon G. Kiley and acknowledged the foregoing instrument to be her free act and deed.

Before me,



Notary Public/Attorney at Law

Print Name: Martha A. Driscoll, Bar #7310

MAINE REAL ESTATE TAX-Paid

EXHIBIT A

33 West Presumpscot Street, Portland, Maine

A certain lot or parcel of land, with the buildings thereon, situated on Presumpscot Street, now known as West Presumpscot Street, in the City of Portland, County of Cumberland and State of Maine, and being Lots numbered 133 and 134 on Plan of L. W. Dyer, recorded in the Cumberland County Registry of Deeds in Plan Book 7, Page 2, and being more particularly bounded and described as follows:

Commencing at a point on the northwesterly side of West Presumpscot Street, one hundred and fifty (150) feet southwesterly from Illsley Street;

Thence northwesterly on the southwesterly line of Lots 83, 84, and 85 as shown on above referred to Plan, one hundred and fifty (150) feet to lot number 86;

Thence southwesterly by Lots 86 and 130, one hundred (100) feet;

Thence southeasterly by lot numbered 132, one hundred fifty (150) feet to Presumpscot Street;

Thence northeasterly by West Presumpscot Street, one hundred (100) feet to the point of beginning.



BOARD OF DIRECTORS

Mark B. Adelson, President
Mariar Balow, Vice-President
Kristin Blum, Director
Faith McLean, Director
Christian MilNeil, Director
Shirley Peterson, Director
Robyn Tucker, Director
Thomas Valleau, Director

14 Baxter Boulevard
Portland, Maine 04101
Office: 207-773-4753
Fax: 207-761-5886

May 20, 2019

Barbara Barhydt
Development Review Manager
City of Portland - Planning Division
389 Congress Street
Portland, Maine 04101

**Subject: Front Street Redevelopment
Financial Capacity to Develop Affordable Housing**

Dear Barbara,

The purpose of this letter is to certify that Front Street Housing Redevelopment, LP, the Applicant in the Site Plan application for Front Street Redevelopment and an affiliate of Portland Housing Development Corporation (PHDC) and Portland Housing Authority, has the financial capacity to redevelop the Front Street Phase 1 and 2 affordable housing development.

Pre-Development:

Portland Housing self-finances pre-development expenses with unrestricted funds and is then reimbursed at the construction loan closing.

Construction Financing:

Portland Housing Authority has received an award of \$125,000 from the Housing for Everyone Program at the TD Charitable Foundation to assist in paying for the costs of demolition and temporary relocation of residents at Front Street Phase 1. See attached Commitment Letter from the TD Bank Charitable Foundation. These are considered costs outside of the MaineHousing projects, but are PHDC expenses. PHDC was also awarded CDBG funds from the City of Portland in 2017 to pay for relocation expenses. PHDC is also applying to EPA for \$500,000 of Brownfield Clean-Up Grant funds. We hear about that award in June 2019.

Portland Housing Development Corporation has secured a Term Sheet (see attached) for construction financing totaling \$19,900,000 from Bath Savings Bank for Phases 1 & 2. Bath Savings also acted as our sponsor bank for our Federal Home Loan Bank of Boston Affordable Housing Program (AHP) application.

Permanent Financing

PHDC has received an award of \$750,000 of direct subsidy from the Federal Home Loan Bank of Boston's Affordable Housing Program (AHP) program. Additionally, PHDC has received an AHP award for an amortizing subsidized advance. This subsidized advance will "buy down" the interest rate on a permanent loan from in the amount of \$3,400,000 from Bath Savings Bank. See attached term sheet from Bath Savings.

Front Street Redevelopment was also awarded Federal HOME funds of \$510,174 and City Housing Trust Funds of \$925,000 from the City of Portland in 2018.

Regarding Low Income Housing Tax Credits (LIHTC), PHDC has received two 9% LIHTC awards for Bayside Anchor and 58 Boyd Street in the past five years. We are experienced in and knowledgeable of the competitive nature of the LIHTC funding rounds, and have maximized our points for Front Street under the latest Qualified Allocation Plan (QAP). **Planning Board approval by mid-August 2019 will provide the Front Street Redevelopment with 6 critically-needed QAP points and is essential for the project to secure a 9% LIHTC award in the upcoming application round.** See the attached Letter of Interest from the LIHTC investor, Northern New England Housing Investment Fund.

Operating Subsidy

Front Street has secured an award of 40 project-based vouchers for Phase 1 and 10 project-based-vouchers for Phase 2. These vouchers will guarantee that those households will pay no more than 30% of their income towards housing costs.

Organizational Capacity and Experience

As the Director of Real Estate Development, I have been developing affordable housing for over 15 years and was the Director of Development at Avesta Housing when that agency developed Logan Place, Fore River Apartments and the first phase of Pearl Place, among other Portland area projects. I have successfully secured funding from various financing sources for affordable housing including LIHTC, Federal HOME funds, Federal Home Loan Bank AHP grants and subsidized advances, HUD 202 grants, RD 515 funds, and local and national foundation grants.

Respectfully Submitted,



Jay Waterman
Director of Real Estate Development

Order 27-18/19

Motion to postpone to September 5, 2018: 9-0 on 8/13/2018

Motion to amend to change the funding total to \$510,174; 8-0 (Ali absent) on 9/5/2018

Passage as amended: 8-0 (Ali absent) on 9/5/2018

Effective 9/15/2018

ETHAN K. STRIMLING (MAYOR)
BELINDA S. RAY (1)
SPENCER R. THIBODEAU (2)
BRIAN E. BATSON (3)
JUSTIN COSTA (4)

CITY OF PORTLAND
IN THE CITY COUNCIL

KIMBERLY COOK (5)
JILL C. DUSON (A/L)
PIOUS ALI (A/L)
NICHOLAS M. MAVODONES, JR (A/L)

**ORDER APPROPRIATING
HOME INVESTMENT PARTNERSHIPS PROGRAM FUNDS
IN THE AMOUNT OF \$510,174 TO THE
PORTLAND HOUSING DEVELOPMENT CORPORATION
RE: FRONT STREET**

ORDERED, that the amount of \$510,174 in Home Investment Partnerships (HOME) Program funds is hereby appropriated to the Portland Housing Development Corporation for development costs for Front Street ; and

BE IT FURTHER ORDERED, the City Manager or his or her designee is authorized to execute any and all documents necessary to apply for, accept and appropriate the grant, and otherwise carry out the intent of this order.

Order 53-18/19

Passage: 8-0 (Ali absent) on 9/5/2018

Effective 9/15/2018

ETHAN K. STRIMLING (MAYOR)
BELINDA S. RAY (1)
SPENCER R. THIBODEAU (2)
BRIAN E. BATSON (3)
JUSTIN COSTA (4)

CITY OF PORTLAND
IN THE CITY COUNCIL

KIMBERLY COOK (5)
JILL C. DUSON (A/L)
PIOUS ALI (A/L)
NICHOLAS M. MAVODONES, JR (A/L)

**ORDER APROVING THE ALLOCATION AND APPROPRIATION
OF \$925,000 FROM THE HOUSING TRUST FUND
RE: PORTLAND HOUSING DEVELOPMENT CORPORATION
FRONT STREET**

ORDERED, that any amount up to \$925,000 in funds from the Housing Trust Fund are hereby allocated and appropriated to fund the Portland Housing Development Corporation project on Front Street; and

BE IT FURTHER ORDERED, that the City Council hereby authorizes the City Manager or his or her designee to approve an adjustment to the total allocation of up to ten percent (10%); and

BE IT FURTHER ORDERED, that the City Council hereby authorizes the City Manager or his or her designee to execute said document and any other related documents necessary or convenient to carry out the intent of said document.



June 15, 2018

Portland Housing Authority
Attn: Mark Adelson
14 Baxter Blvd.
Portland, ME 04101

Dear Mark,

Congratulations! On April 18, 2018, Portland's City Council awarded Community Development Block Grant funds to your organization for the following projects during the fiscal year beginning July 1, 2018:

\$250,000 for the Front Street Re-Development Phase 1

1. Regulations: In Section I of the Application, please review: Federal HUD Regulations (section I.A), Portland's CDBG Goals Principles and Priorities (section I.C), the Reservation of Rights (section I.G) and Post Award and Sub-recipient Criteria (section I.H).
2. Scope of Work: **Please revise and resubmit the following sections of your applications by June 29, 2018**, based on your award. Documentation should be submitted electronically by email. This information will be incorporated into your contract with the City of Portland.
 - a. *Cover Page* (section II.A): Update contact information and indicate who will be the primary contact. Also revise as needed the amount of CDBG Funds awarded and Total Program Budget.
 - b. *Worksheet* (section II.B): Be sure all information is updated and accurate, specifically Question 5 Beneficiaries, Question 6 Program Objectives and Outcomes, and Question 7 Documentation.
 - c. *Narrative* (section II.C): Update the narrative as necessary.
 - d. *Budget* (section II.D): Update the Budget Form with any new or revised information, based on your award. When preparing your budget, keep in mind that these funds will be paid by reimbursement only.
 - e. *Summary (section II.E)*: Review and update the following sections as needed: Program Summary, HUD National and Program Objective,



Planning & Urban Development Department

Priority Impact Area, Beneficiaries/ Clients Served, Units of Service, Outcomes, Budget and Leveraged Funds.

- f. *Scope of Work and Estimate*: Update, as necessary, the scope of work and estimate from a building professional (engineer, architect, project manager or contractor) that was submitted as part of the application. *Please see the Procurement section below.*
 - g. *Project Timeline*: Submit an updated timeline.
 - h. *Plans, Pictures or Maps*: Update plans, pictures, or maps, as applicable.
3. Federal Contract Provisions: This project will be subject to federal requirements, including:
- a. Environmental Review: All funded projects that include construction will require an Environmental Review by the City to ensure compliance with the State Historic Preservation Office, local Historic Preservation Ordinances and other environmental regulations. If applicable, this will take two to four weeks to process *once a final scope of work is submitted and approved by staff.*
 - b. Federal Labor Standards: Sub-recipients who receive funds for construction or rehabilitation projects must ensure that they and all subcontractors meet requirements for federal prevailing wage rates specified under the Davis-Bacon Act. The Act requires that all laborers and mechanics employed by contractors in the performance of construction financed in whole or in part with assistance received under HUD programs (CDBG), shall be paid wages at rates no less than the prevailing rates provided. This will require certified payroll to be submitted to the City for all workers on site.
 - c. Lead Safe Practices: Any contractor, plumber, electrician or painter who disturbs lead paint in a pre-1978 home, school or day care center must be Lead-Safe certified.
 - d. Section 3: applies to all funded projects; please see me for details.
 - e. Procurement: full and open competition & cost reasonableness, procurement must comply with the City's Purchasing Ordinance.
 - i. For projects less than \$25,000 three quotes are required to ensure fair pricing.
 - ii. For projects over \$25,000 work must be competitively bid. This includes the project being publicly advertised in a local daily



Planning & Urban Development Department

newspaper that specifies a time for contractor walk-through, bid deadline, and that the project is funded with federal HUD funds.

4. Insurance: Each agency/business will be required to obtain and maintain adequate insurance in order to receive funding from the City of Portland. Insurance requirements include:

- Public liability insurance in the amount of \$400,000 with the City of Portland listed as an additional insured
- Worker's compensation insurance
- Employment compensation insurance.

It is your responsibility to provide updated and current proof of insurance information to the City. **Please submit proof of insurance with your revised application by June 29, 2018.**

5. Reporting: Quarterly updates will be required in order to process payments. Updates will provide project status updates. A form will be provided. Reporting will occur on a quarterly basis, due on the 10th of the month (October 10, January 10, April 10 and July 10). Please identify who will submit the quarterly reports.
6. Payment: Requests will be submitted and processed through the City's accounting system. Payments are made on a reimbursement basis only. All construction payment requests will be required to submit certified payroll with each requisition reflecting the workers on site. *Payment requests typically take 7-10 days to process once the certified payroll is submitted and approved.* Checks can be mailed or picked up in room 313 City Hall.

If this is the first time that you are receiving funds from the City you will need to fill out a W-9 form. Payment cannot be released without a W-9 on file. Checks will be mailed to the address listed on the W-9, if you need to update this information, please let me know.

Please note: All revisions must be submitted before the contract can be signed and no work can begin and no money can be spent before July 1, 2018. We will be back in touch once we have scheduled a time to sign the contract in July.

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

If you have any questions, please contact me.

I look forward to working with you this year!

Sincerely,

Kristin Styles
Housing & Community Development Program Manager
kms@portlandmaine.gov
Phone: 874-8731

cc: Jay Waterman, file



TD Charitable Foundation
P.O. Box 9540
Portland, ME 04112

October 31, 2017

Mr. Jay Waterman
Director of Development
Portland Housing Authority
14 Baxter Boulevard
Portland, ME 04101

Dear Mr. Waterman:

At the October 30, 2017 meeting of the TD Charitable Foundation Grants Committee, a grant was approved in the amount of \$125,000 to your organization. Funding from this grant will be used to support your organization's programs as detailed in the grant application submitted to TD Bank's Community Relations office.

This grant has been made through the TD Charitable Foundation and is subject to the following terms and conditions:

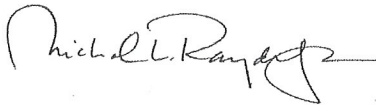
- The recipient of the grant must be tax exempt under section 501c(3) of the Internal Revenue Code (and must notify the TD Charitable Foundation of any changes in this status). With very limited exceptions, as outlined in the IRC, the recipients may not be a private foundation.
- The recipient of this grant will utilize proceeds only for charitable or educational activities consistent with its tax-exempt status. Funds received may not be used to intervene in any election or to support/oppose political candidates for voter registration, or lobbying purposes as outlined by the applicable IRS code.
- The recipient of this grant will promptly provide any additional information, reports and documents that the TD Charitable Foundation might request.
- The recipient of this grant may not transfer this general support grant to any other entity or person, and the recipient assumes responsibility for the disposition of these funds in compliance with the grant agreements terms and conditions.
- This grant is to be only used for the purposes detailed in the grantee's funding proposal and correspondence and the recipient affirms that the project's budget accurately reflects the present intentions of the program or project outlined in the grant application.
- First time recipients of multi-year grants will be required to provide an annual update on the progress of the programs funded through the TD Charitable Foundation Grant in order to receive subsequent grant payments.

- Capital Campaign recipients will be required to provide annual updates on the progress of their capital campaign effort. Additionally, this update should include information on all sources of funding for the Capital Campaign.
- If you plan to send your own release and/or feature the grant in a publication, please forward an electronic version of the news release, print or visual collateral to your TD Charitable Foundation Relationship Manager to review prior to production or use. Your regional TD Charitable Foundation Relationship Manager will respond with comments and/or approvals within your release, print and productions deadlines.

The negotiation and deposit of the grant check will be considered as acceptance of the terms and conditions as outlined above.

To maintain our records and files, after having read and reviewed this letter, please return a copy signed by an authorized officer of the receiving organization to the TD Charitable Foundation in the accompanying postage paid envelope.

Sincerely,



Michael L. Rayder, Jr.
Manager
TD Charitable Foundation

On behalf of Portland Housing Authority, I understand and agree to the terms and conditions of the Foundation's grant, and hereby certify my authority to execute this agreement on behalf of Portland Housing Authority.

Signature: Mark Adelson

Name: MARK ADELSON

Title: EXECUTIVE DIRECTOR

Date: 1/19/18



EDWARD A. HJERPE III
President and Chief Executive Officer

December 21, 2017

ed.hjerpe@fhlbboston.com

Mr. Glenn L. Hutchinson
President and Chief Executive Officer
Bath Savings Institution
105 Front Street
Bath, ME 04530-0548

RE: Notice of Award for **A20171-065 (Front Street Re-Development Phase I)**

Dear Mr. Hutchinson:

It is with pleasure that I write to notify you that we have approved your application for funding in the 2017 Affordable Housing Program (AHP) round. Congratulations on submitting a successful application. We have approved your initiative for the following funding, subject to the terms below:

Amount of Direct Subsidy: \$500,000

Amount of Advance: \$3,400,000 Term: 20 years

Amortization Period: 30 years

Acknowledgement of this approval must be received by **February 02, 2018**. Please sign below and return this letter to:

Federal Home Loan Bank of Boston
Housing and Community Investment Department
800 Boylston Street, 9th Floor
Boston, MA 02199

Please be sure to keep a copy for your records. Signing this letter in no way obligates your institution to accept the AHP funds. Extensions may be requested for the project and will be approved at the sole discretion of the Bank. If at any time it is determined that the project does not require the AHP funds, or cannot use the funds in a timely manner, please notify the Bank immediately.

If you have any questions, please contact our Housing and Community Investment staff at 888-424-3863. Again, congratulations on your successful AHP application.

Sincerely,

Award Notification Acknowledged By:

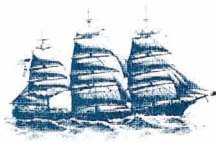
Signature

Glenn L. Hutchinson, President & CEO
Typed name and title

Enclosures

December 27, 2017
Date

cc: Mara K. Pennell, Vice President/Commercial Lending
Jay Waterman, Portland Housing Authority, Director of Real Estate Development
Mark Adelson, Portland Housing Development Corporation,



Benj. F. Packard

Bath Savings Institution

Since 1852

May 21, 2019

Jay Waterman, Development Director
Portland Housing Development Corporation
14 Baxter Blvd.
Portland, ME 04101

For discussion purposes only

Dear Jay,

In response to your request for financing, I offer the following general terms and conditions under which Bath Savings Institution would consider financing. The actual terms and conditions of financing are subject to satisfactory completion of due diligence, satisfactory review of documentation, and such other items and conditions as determined by Bath Savings Institution.

LOAN 1:

BORROWER: Front Street Housing Re-Development, LP

PURPOSE: The loan proceeds will be used to fund the construction of 60 residential units, known as Front Street Redevelopment - Phase I (the "Project")

AMOUNT: A non-revolving commercial construction line of credit up to \$13,200,000 not to exceed eighty percent (80%) of the value as determined by a bank ordered appraisal

TERM: The term of the construction loan will be up to 18 months

INTEREST RATE: At the discretion of the borrower the interest rate will be either
i) variable at WSJ Prime plus 0%, currently 4.25%, or
ii) fixed at the time of commitment equal to WSJ Prime plus 0%

ORIGINATION FEE: \$6,500

LOAN 2:

BORROWER: Front Street Housing Re-Development, LP

PURPOSE: The loan proceeds will be used to refinance debt incurred in the construction of 60 residential units, known as Front Street Redevelopment -Phase I (the "Project")

AMOUNT: Commercial mortgage up to \$3,400,000

TERM: The term of the loan shall be 20 years, with an amortization of 30 years

INTEREST RATE: The interest rate will be fixed at time of commitment and will 2.25% over the Federal Home Loan Bank subsidized advance rate.

ORIGINATION FEE: \$2,500

LOAN 3:

BORROWER: Front Street Housing Re-Development, LP

PURPOSE: A non-revocable stand-by letter of credit in favor of the City of Portland, as required for the construction of 60 residential units, known as Front Street Redevelopment -Phase I (the "Project")

AMOUNT: Up to \$600,000. This amount will be reserved against the available balance of Loan 1.

TERM: The expiration of the letter of credit will be 2 years or as required by the City of Portland.

INTEREST RATE: The interest rate, if drawn, will be the interest rate of Loan 1

ORIGINATION FEE: Waived

ALL FINANCING IS SUBJECT TO THE FOLLOWING

CLOSING COSTS: Third party fees are generally not controlled by Bath Savings Institution but the Bank endeavors to minimize the costs associated with this transaction. The borrower is responsible for closing costs incurred, including but not limited to bank fees, bank attorney fees, title work, title insurance, Bank Construction Supervisor, recording fees, and a real estate appraisal.

SECURITY: The loans will be secured by the following collateral:

- a. A first mortgage and security agreement on the land and improvements connected with the Project,
- b. A first priority assignment of all leases and rentals,
- c. A collateral assignment of all construction contracts, architects and engineers contracts, and all permits and approvals, necessary for construction and operation of the project,
- d. An assignment of all contracts and agreements for the provision of tenant services, if any
- e. A first security interest in all syndication proceeds due under the Limited Partnership Agreement
- f. An assignment of all reserves and other cash deposit affiliated with the project including those required by permanent financing commitments
- g. An assignment of the Limited Partners obligation to pay its capital contributions and any security interest securing the same
- h. An assignment of tax credits from Maine State Housing Authority, subject to conditions imposed by Maine State Housing Authority
- i. An assignment of the General Partner's partnership interest

INSURANCE MATTERS: All insurance policies shall indicate Bath Savings Institution as loss payee, as applicable;

- a. Public Liability
- b. All-Risk Casualty
- c. Workers' Compensation
- d. Business Auto Liability
- e. Comprehensive General
- f. Builders Risk Policy

DEPOSIT RELATIONSHIP:

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The borrower shall be required to maintain a deposit relationship with Bath Savings Institution, including reserve accounts and any applicable construction escrows related to the Project.

OTHER CONDITIONS:

- a. The Bank will order a summary appraisal which will be required to contain an "As- complete" value and include consideration of the added value of the equity from the tax credits, as proposed. The loan amount will be limited to no more than 80% of the total cost or 80% of the appraised value, whichever is lower.
- b. Subject to award of Low Income Housing Tax Credits from Maine State Housing in an amount sufficient to fully fund the construction project and pay off the balance of the construction loan at the time of permanent closing.
- c. Subject to approval of a Federal Home Loan Bank Subsidized AHP Advance sufficient to support 100% of the full term (20 years) interest on an up-to \$3,400,000 Bank borrowing from FHLBB. (up to \$500,000 interest rate subsidy).
- d. Subject to approval of a \$500,000 Federal Home Loan Bank Affordable Housing Program Direct subsidy (FHLBB AHP), a \$200,000 Maine Housing Direct subsidy and all other funding required to complete the project, including an Maine Housing Interest only loan.
- e. Subject to a review of a detailed budget for the cost of constructing the Project,
- f. Subject to a financial analysis of cash flow that will support the long term financing,
- g. Additional encumbrances on any of the properties pledged to Bath Savings Institution shall be prohibited during the life of the loan without prior written bank consent,
- h. Any contract for construction of the proposed improvements will contain a "Guaranteed Not To Exceed Price,"
- i. The contractor and all major subcontractors must be acceptable to the Bank; financial statements will be required of all contractors,
- j. The Bank will be paid a monthly fee to cover inspections of the improvements as they are constructed,
- k. The Bank may require receipt of a Phase I Environmental Report prior to closing.

FINANCIAL STATEMENTS:

The Borrower will be required to submit annual financial statements to Bath Savings Institution each year by April 30.

Please note that this should not be construed as a commitment by Bath Savings Institution but as an indication of our interest in financing this project subject to the outlined conditions. Such commitment can only be issued after satisfactory credit, cash flow analysis, and collateral investigations have been completed and the Bank grants approval.

The above stated terms are the framework for a possible loan. It is effective for 120 days from the date of this letter.

We are looking forward to continuing our discussions about this project. Please contact me if you have any questions regarding this term sheet.

Sincerely,



Mara K. Pennell
Vice President

Confidential



Benj. F. Packard

Bath Savings Institution

Since 1852

May 21, 2019

Jay Waterman, Development Director
Portland Housing Development Corporation
14 Baxter Blvd.
Portland, ME 04101

For discussion purposes only

Dear Jay,

In response to your request for financing, I offer the following general terms and conditions under which Bath Savings Institution would consider financing. The actual terms and conditions of financing are subject to satisfactory completion of due diligence, satisfactory review of documentation, and such other items and conditions as determined by Bath Savings Institution.

LOAN 1:

BORROWER: Front Street Housing Re-Development, LP

PURPOSE: The loan proceeds will be used to fund the construction of 45 residential units, known as Front Street Redevelopment - Phase II (the "Project")

AMOUNT: A non-revolving commercial construction line of credit up to \$6,700,000 not to exceed eighty percent (80%) of the value as determined by a bank ordered appraisal

TERM: The term of the construction loan will be up to 18 months

INTEREST RATE: At the discretion of the borrower the interest rate will be either
i) variable at WSJ Prime plus 0%, currently 4.25%, or
ii) fixed at the time of commitment equal to WSJ Prime plus 0%

ORIGINATION FEE: \$4,500

LOAN 2:

BORROWER: Front Street Housing Re-Development, LP

PURPOSE: A non-revocable stand-by letter of credit in favor of the City of Portland, as required for the construction of 60 residential units, known as Front Street Redevelopment -Phase I (the "Project")

AMOUNT: Up to \$600,000. This amount will be reserved against the available balance of Loan 1.

TERM: The expiration of the letter of credit will be 2 years or as required by the City of Portland.

105 FRONT STREET, PO BOX 548, BATH, MAINE 04530

TEL. 207-442-7711 FAX 207-442-9137

1-800-447-4559

MEMBER FDIC

INTEREST RATE: The interest rate, if drawn, will be the interest rate of Loan 1

ORIGINATION FEE: Waived

ALL FINANCING IS SUBJECT TO THE FOLLOWING

CLOSING COSTS: Third party fees are generally not controlled by Bath Savings Institution but the Bank endeavors to minimize the costs associated with this transaction. The borrower is responsible for closing costs incurred, including but not limited to bank fees, bank attorney fees, title work, title insurance, Bank Construction Supervisor, recording fees, and a real estate appraisal.

SECURITY: The loans will be secured by the following collateral:

- a. A first mortgage and security agreement on the land and improvements connected with the Project,
- b. A first priority assignment of all leases and rentals,
- c. A collateral assignment of all construction contracts, architects and engineers contracts, and all permits and approvals, necessary for construction and operation of the project,
- d. An assignment of all contracts and agreements for the provision of tenant services, if any
- e. A first security interest in all syndication proceeds due under the Limited Partnership Agreement
- f. An assignment of all reserves and other cash deposit affiliated with the project including those required by permanent financing commitments
- g. An assignment of the Limited Partners obligation to pay its capital contributions and any security interest securing the same
- h. An assignment of tax credits from Maine State Housing Authority, subject to conditions imposed by Maine State Housing Authority
- i. An assignment of the General Partner's partnership interest

INSURANCE MATTERS: All insurance policies shall indicate Bath Savings Institution as loss payee, as applicable;

- a. Public Liability
- b. All-Risk Casualty
- c. Workers' Compensation
- d. Business Auto Liability
- e. Comprehensive General
- f. Builders Risk Policy

DEPOSIT RELATIONSHIP:

The borrower shall be required to maintain a deposit relationship with Bath Savings Institution, including reserve accounts and any applicable construction escrows related to the Project.

OTHER CONDITIONS:

- a. The Bank will order a summary appraisal which will be required to contain an "As- complete" value and include consideration of the added value of the equity from the tax credits, as proposed. The loan amount will be limited to no more than 80% of the total cost or 80% of the appraised value, whichever is lower.
- b. Subject to award of \$3,392,249 in Low Income Housing Tax Credits from Maine State Housing sufficient to fully fund the construction project and pay off the balance of the construction loan, combined with other funding sources.
- c. Subject to approval for all other funding required to complete the project, including but not limited to a \$665,000 Maine Housing Direct subsidy, \$370,000 City Housing Trust Fund Grant and \$204,070 City FedHOME funding.
- d. Subject to a review of a detailed budget for the cost of constructing the Project,
- e. Subject to a financial analysis of cash flow that will support the long term financing,

Confidential

- f. Additional encumbrances on any of the properties pledged to Bath Savings Institution shall be prohibited during the life of the loan without prior written bank consent,
- g. Any contract for construction of the proposed improvements will contain a "Guaranteed Not To Exceed Price,"
- h. The contractor and all major subcontractors must be acceptable to the Bank; financial statements will be required of all contractors,
- i. The Bank will be paid a monthly fee to cover inspections of the improvements as they are constructed,
- j. The Bank may require receipt of a Phase I Environmental Report prior to closing.

FINANCIAL STATEMENTS:

The Borrower will be required to submit annual financial statements to Bath Savings Institution each year by April 30.

Please note that this should not be construed as a commitment by Bath Savings Institution but as an indication of our interest in financing this project subject to the outlined conditions. Such commitment can only be issued after satisfactory credit, cash flow analysis, and collateral investigations have been completed and the Bank grants approval.

The above stated terms are the framework for a possible loan. It is effective for 120 days from the date of this letter.

We are looking forward to continuing our discussions about this project. Please contact me if you have any questions regarding this term sheet.

Sincerely,



Mara K. Pennell
Vice President

Confidential



8/31/17

Jay Waterman
Development Director
Portland Housing Development Corporation
14 Baxter Boulevard
Portland, Maine

RE: Letter of Interest – Front Street, LP (“Partnership”)

Dear Jay:

We are pleased to provide this letter of interest for the new construction of affordable housing in Portland, Maine. As you know, Northern New England Housing Investment Fund (“NNEHIF”) invests in community-based projects receiving the federal Low Income Housing Tax Credit. We understand that you anticipate a reservation of 2018 credit in the amount of \$795,000 from MaineHousing.

Upon satisfactory resolution of addressing the current funding needs, we would be interested in investing \$6,836,316 in exchange for a 99.99% limited partnership interest in the Partnership. Approximately 30% of these funds would be available from CLC and throughout construction.

This letter of interest is conditioned on the Fund conducting all customary underwriting and due diligence and receipt of a final pro-forma, approved by MaineHousing, that addresses any additional loans, grants, fees or other sources.

A more detailed letter of interest will be provided once all the capital sources have been identified.

We wish you great success in your application and look forward to our continued work together.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom MacDonald", is written over a light blue horizontal line.

Tom MacDonald
Vice President, Acquisitions
NNEHIF

Technical Capacity

The applicant has assembled a highly qualified team of professionals for the preparation of this project. All members of this team have significant experience with this type of project and many have worked together on other similar projects. The project is being designed by a multi-disciplinary team of design professionals. All members of the design team have proven experience working on projects located in the City of Portland.

Portland Housing Authority **Owner**
14 Baxter Blvd.
Portland, ME 04101
207-773-4753
Contact: Jay Waterman

Front Street Redevelopment, LP **Applicant/Developer**
14 Baxter Blvd.
Portland, ME 04101
207-773-4753
Contact: Jay Waterman

Utile Architects **Architect**
115 Kingston Street
Boston, MA 02111
617-423-7200
Contact: Michael LeBlanc

Carroll Associates **Landscape Architect**
217 Commercial Street, Suite 200
Portland, ME 04101
207-772-1552
Contact: Pat Carroll / Matthew Phillips

Ransom Consulting Engineers **Consulting Engineer (Civil)**
400 Commercial Street, Suite 404
Portland, ME 04101
207-772-2891
Contact: John Mahoney

Gorrill-Palmer Consulting Engineers **Consulting Engineer (Traffic)**
15 Shaker Road
Gray Road, ME 04039
207-657-6910
Contact: Randy Dunton

Owen Haskell, Inc. **Surveyor**
390 US Route One, Unit 10
Falmouth, ME 04105
207-774-0424
Contact: John Schwanda

Drummond Woodsum **Attorney**
84 Marginal Way, Suite 600
Portland, ME 04101-2480
207-772-1941
Contact: Gary Vogel

CURB EXTENSION REVIEW

Proposed Project: Front Street Apartments

Project Location: 95 Front Street

Curb Extension Description:

Request curb extensions at three locations:

- 1). West Presumpscot Street at Front Street, extend into W. Presumpscot Street and Front Street to reduce pedestrian crossing width along Front Street Sidewalk.
- 2). West Presumpscot Street, mid-block pedestrian crossing requesting raised table to provide pedestrian visibility and accessibility.
- 3). Front Street, mid-block bumpout on north side of Front Street to align with new pedestrian connection to Payson Park.

(Attach an 8.5"x11" or 11"x17" drawing of the proposed locations with curb ramps highlighted.)

The curb extension(s) is/are needed to: (circle all that apply):

1. Address a documented/identified pedestrian-vehicle safety issue **YES** / NO _____

At all neighborhood meetings held for this project the overwhelming concern has been speed of vehicles on W. Presumpscot Street and safety for children playing in neighborhood. We can submit minutes from these meetings if requested.

2. Improve or Required to meet ADA-compliance for sidewalks and/or curb ramps **YES**/NO

3. Reduce crossing distances at a signalized intersection to reduce pedestrian exposure times and to decrease the pedestrian crossing signal phase YES/**NO**

No signalized intersection, but the curb extensions still function to reduce pedestrian exposure time .

4. Comply with an adopted transportation or neighborhood plan YES/NO

5. Other factors:

The curb extensions will improve driver's visibility of pedestrians and allow pedestrians to step out to better see oncoming traffic.

The curb extensions will reduce pedestrian crossing distances and pedestrian exposure times
Sloped curbing is proposed for the curb radii on the corners of the West Presumpscot – Front Street intersection to minimize impacts on emergency response.

The curb extensions will be skewed and have concave radius stones at the intersection with the curb line (no mitered joints) to minimize impacts on plowing.

From the National Association of City Transportation Officials Guidelines, which have been approved by FHWA:

<https://nacto.org/publication/urban-street-design-guide/street-design-elements/curb-extensions/>

- "Curb extensions increase the overall visibility of pedestrians by aligning them with the parking lane and reducing the crossing distance for pedestrians"
- "Curb extensions decrease the overall width of the roadway and can serve as a visual cue to drivers that they are entering a neighborhood street or area."
- "Curb extensions tighten intersection curb radii and encourage slower turning speeds."

CURB EXTENSION REVIEW

Reviews made:

____ Turning templates have been applied for the appropriate design vehicle
See attached turning templates. We have met with Fire, Police, DPW, and Water Resources. At the last meeting on the 4th floor of City hall we discussed that the curb extensions would be field tested with the Fire Department during final design and modified as needed.

____ Fire Dept. Note any objections and changes made, if any:

____ Police Dept. Note any objections and changes made, if any:

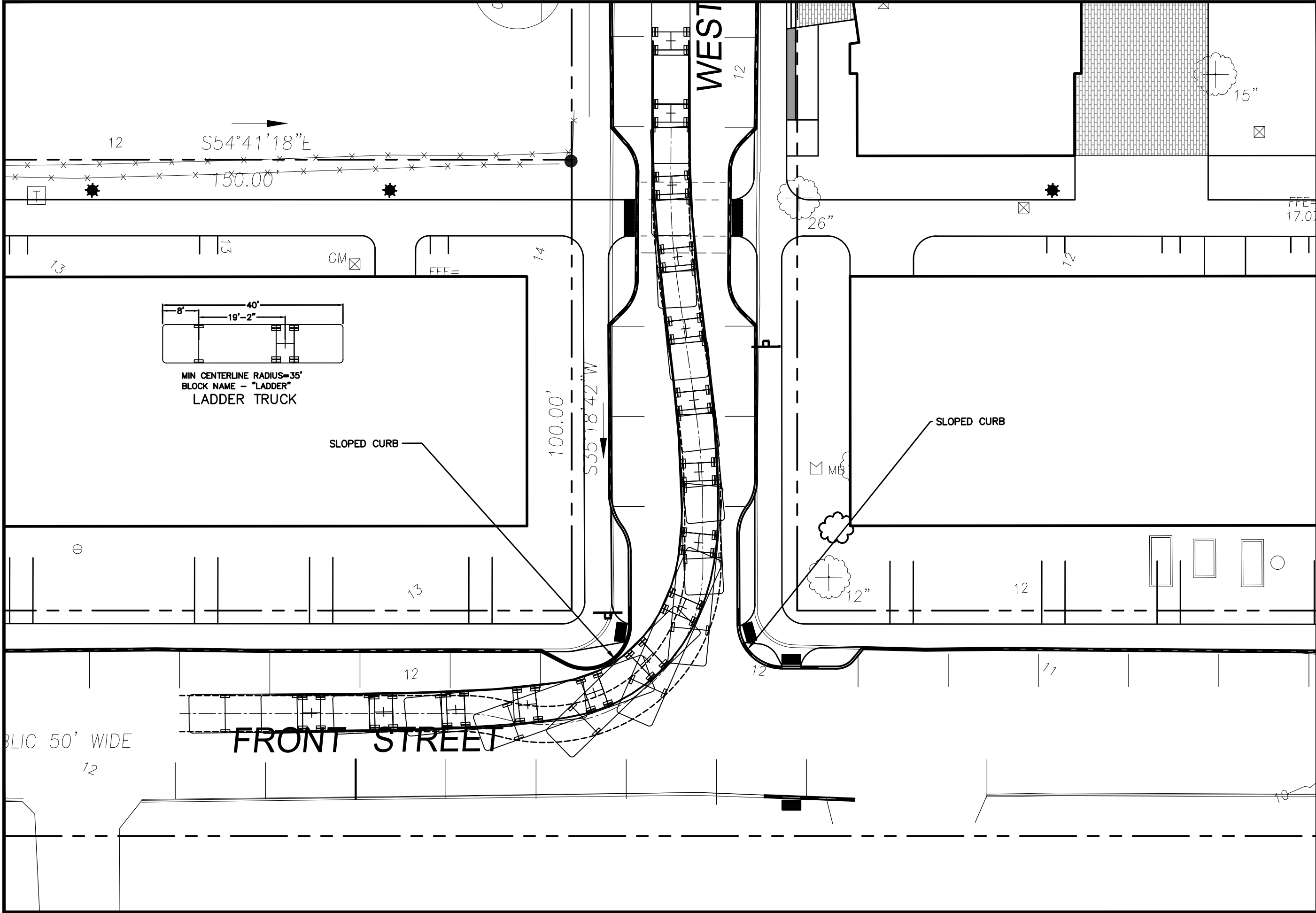
____ DPW Operations Note any objections and changes made, if any:

____ Water Resources Note any objections and changes made, if any:

Approved by City Manager: YES / NO _____ Review Date: _____

Required changes, if any: _____

Curb Extension Review Protocol: The proposed use of curb extensions within the public right of way as part of private site development or within public infrastructure projects requires the prior review of: DPW Operations and Water Resources for its/their potential impacts on winter operations and drainage; and, the Fire Department and Police Department for its/their potential impact on emergency response. Following interdepartmental review the proposed curb extensions are to be reviewed and approved by the City Manager.



Site:
**FRONT STREET
REDEVELOPMENT**

Prepared for:
FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD
PORTLAND, ME 04101

LADDER TRUCK:
RIGHT TURN FROM
WEST PRESUMPCOT
TO FRONT STREET

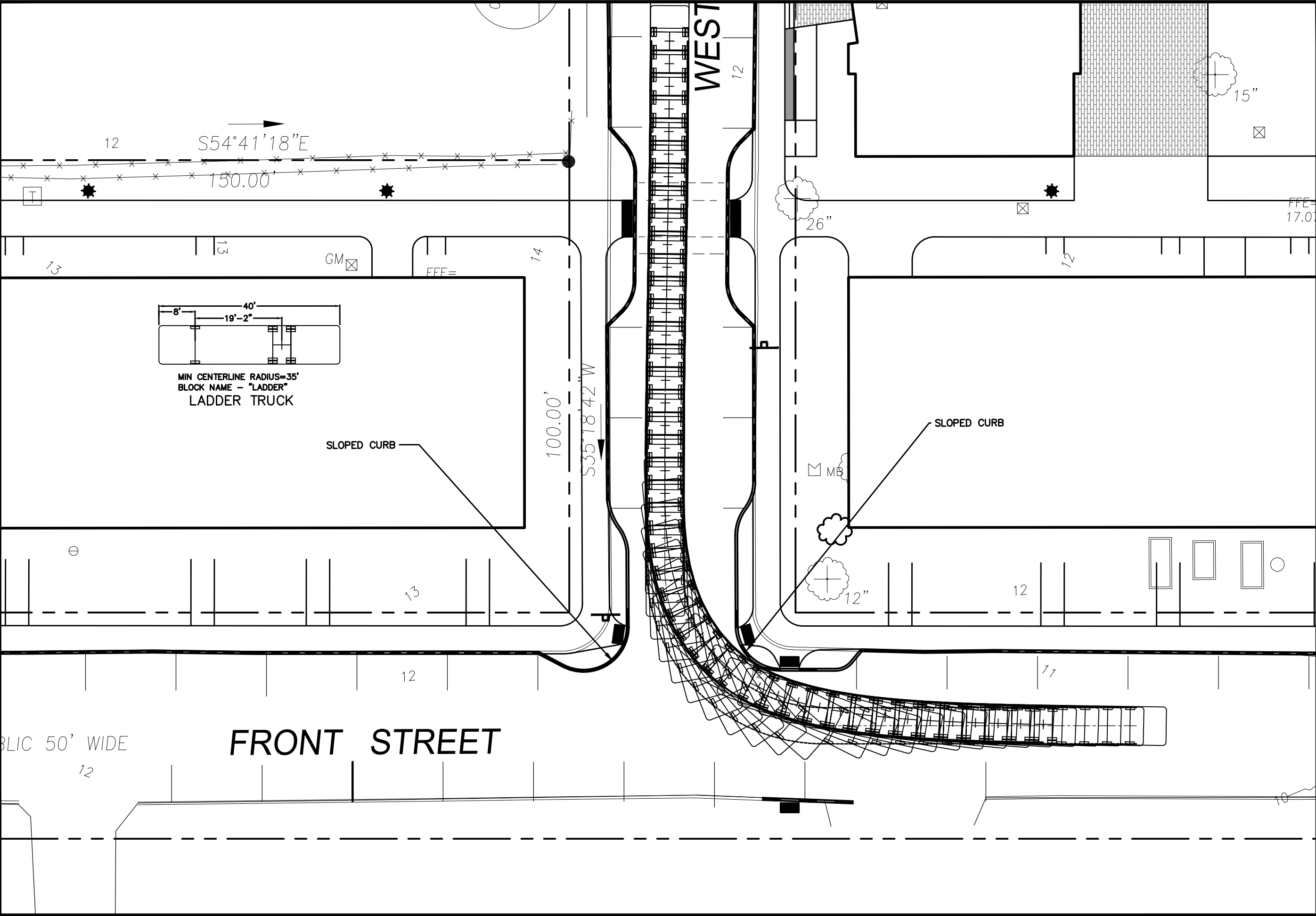
010'20'

SCALE: 1"=20'

STATE OF MAINE
John L. Mahoney
#12340
LICENSED PROFESSIONAL ENGINEER

RANSOM
Consulting
Engineers
and Scientists
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www.ransomenv.com

B	Review	11/3/17
No.	Revision/Issue	Date
Project: 151.06170		
Sheet No: 1/2		



Site:
**FRONT STREET
REDEVELOPMENT**

Prepared for:
FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD
PORTLAND, ME 04101

LADDER TRUCK: LEFT
TURN FROM WEST
PRESUMPSCOT TO
FRONT STREET

010'20'

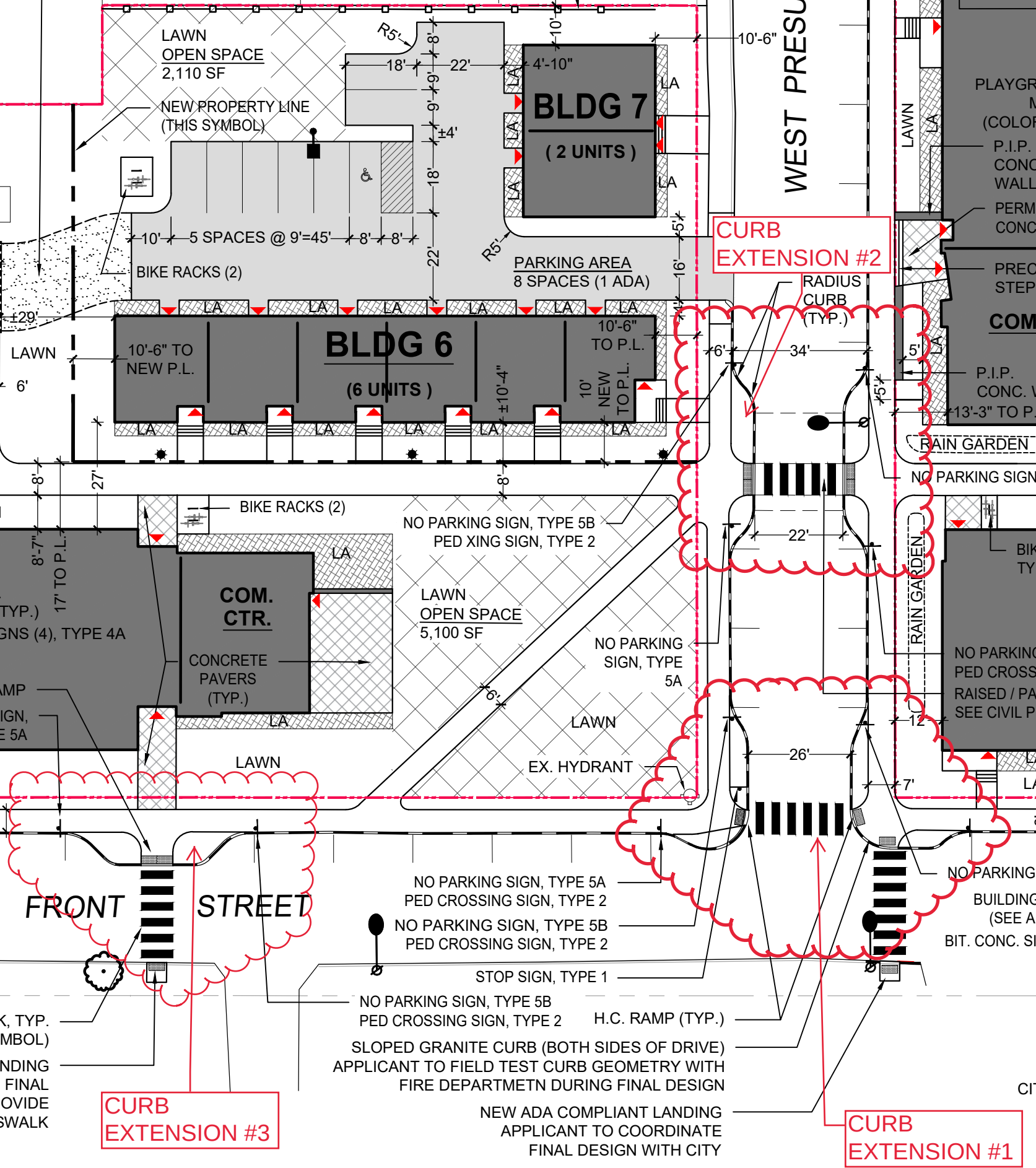
SCALE: 1"=20'

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B	Review	11/3/17
No.	Revision/Issue	Date
Project: 151.06170		
Sheet No: 2/2		



LAWN
OPEN SPACE
2,110 SF

NEW PROPERTY LINE
(THIS SYMBOL)

BLDG 7
(2 UNITS)

WEST PRESU

**CURB
EXTENSION #2**

BLDG 6
(6 UNITS)

RADIUS
CURB
(TYP.)

**COM.
CTR.**

NO PARKING SIGN, TYPE 5B
PED XING SIGN, TYPE 2

LAWN
OPEN SPACE
5,100 SF

NO PARKING
SIGN, TYPE
5A

EX. HYDRANT

FRONT STREET

NO PARKING SIGN, TYPE 5A
PED CROSSING SIGN, TYPE 2
NO PARKING SIGN, TYPE 5B
PED CROSSING SIGN, TYPE 2

STOP SIGN, TYPE 1

NO PARKING SIGN, TYPE 5B
PED CROSSING SIGN, TYPE 2
SLOPED GRANITE CURB (BOTH SIDES OF DRIVE)
APPLICANT TO FIELD TEST CURB GEOMETRY WITH
FIRE DEPARTMENT DURING FINAL DESIGN

NEW ADA COMPLIANT LANDING
APPLICANT TO COORDINATE
FINAL DESIGN WITH CITY

**CURB
EXTENSION #3**

**CURB
EXTENSION #1**

Existing & Proposed Easements

A.) Existing easements, encumbrances, and other burdens:

- **Portland Water Sewer District Easement**
- **Maintenance Easement to City of Portland**

B.) Proposed easements, encumbrances, and other burdens:

- No easements, encumbrances, or other burdens are proposed.

State and/or Federal Permits

- **No State or Federal permits are anticipated as part of this project due to the City's delegated review authority over the stormwater component. See attached Stormwater Narrative and Plans.**

- **No State or Federal permits are anticipated as part of this project due to the low number of trips being generated by the development. The City has delegated review authority over the traffic component. See attached Traffic Memorandum prepared by Gorrill-Palmer.**

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) R-5 PRUD/ DIV 30

All Projects:

	Required	Proposed
Lot Size	2.0	4.28
Area Per Dwelling Unit	1500 (PRUD)	1651
Minimum Street Frontage	50	1556
Front Yard Minimum	10	10
Front Yard Maximum	NA	
Rear Yard	10	10
Yard Right	10	10
Yard Left	10	10
Side Street Setback	10	10
Step Back	NA	
Maximum Lot Coverage	40	26.7
Minimum Lot Coverage	NA	
Maximum Height	35	35
Open Space	22600	40000
Maximum Impervious Area	NA	
Pavement Setback	NA	
Floor Area Ratio	NA	
Off Street Parking Spaces	113	114
Loading Bays	NA	
Other 1		
Other 2		
Other 3		

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):			

Relationships.
Responsiveness.
Results.



**Traffic Forecast,
Parking Assessment
and TDM Plan
Front Street
Redevelopment
Portland, Maine**

PREPARED FOR:
Portland Housing
Corporation
14 Baxter Boulevard
Portland, ME 04101

September 2017

SUBMITTED BY:
Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515

Traffic / Parking Evaluation Front Street Redevelopment Portland, Maine

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Appendix

Trip Generation Calculations
MaineDOT Crash Data
Parking Occupancy Map
Neighborhood Meeting Minutes

Executive Summary

The following Executive Summary is prepared for the reader's convenience, but is not intended to be a substitute for reading the full report.

Gorrill Palmer was retained by the Portland Housing Development Corporation (PHDC) to prepare this traffic forecast, parking study, neighborhood responses, and Transportation Demand Management Plan for their proposed Front Street Redevelopment project. The project consists of razing 50 outdated affordable residential housing units and replacing them with 100 modern and up to date affordable residential units. The proposed units are to be located in numerous buildings between Front Street and Illsley Street. Based on this study, our office has determined the following:

1. The additional traffic forecast as a result of the expansion is 13 and 16 trip ends in the weekday AM and PM peak hours respectively. Total (existing + expansion) for the development after completion of the expansion is forecast at 26 AM and 31 PM peak hour trip ends. A trip end is either a trip in or out of the site, thus a round trip would equal two trip ends. Because the additional trips are less than the 99 trip end threshold per peak hour, this project does not require a Maine Department of Transportation (MaineDOT) Traffic Movement Permit.
2. Based on the crash history provided by MaineDOT, there are two high crash locations on Washington Avenue in the immediate vicinity of the site. However, it is our understanding that the City is currently completing improvement projects on Washington Avenue where the high crash locations are located, so any crash patterns may change.
3. Based on the parking evaluation, comparisons, and additional research completed as part of this assessment, it is our opinion that the proposed project is providing sufficient parking to accommodate the residential units after expansion.
4. Neighborhood concerns include traffic volumes, speeds, parking, and the proposed development integrating into the surrounding neighborhood. The traffic volumes and parking for the site are not anticipated to significantly impact the surrounding neighborhood. PHA is working with the City to address what options they have available to address maintaining reasonable speeds throughout the neighborhood without encouraging traffic diversion.
5. A Transportation Demand Management (TDM) Plan has been prepared that will support the City's transportation and environmental sustainability goals by encouraging and promoting bicycling, walking, and use of transit.

Based on these findings, it is the opinion of Gorrill Palmer that the proposed project can be accommodated by the surrounding roadway network and the City's transportation system.

I. Existing and Proposed Site

The proposed site is located between Front Street and Illsley Street in Portland, Maine and currently includes 19 detached buildings containing 50 affordable housing units and 182 bedrooms. The proposed redevelopment will replace these buildings with new semi-connected buildings and increase the number of housing units and bedrooms to 100 and 221 respectively. Parking for the project will be accommodated by a total of 100 off-street parking spaces, an increase of approximately 50 spaces.

II. Background Conditions

Gorrill Palmer (GP) has based this study on the following information

- A site plan prepared by Carroll Associates
- Trip Generation methodology used in the Bayside Anchor study completed by our office in May 2014 and the 58 Boyd Street study completed by our office in November 2016
- Crash data for 2014-2016 provided by MaineDOT
- A parking inventory performed for the Bayside Anchor study at the existing East Bayside PHA properties, the adjacent streets, and at similar projects in Portland
- A parking count completed within the neighborhood on Sunday, July 9, 2017 at approximately 10:30 in the evening.

III. Trip Generation

Residential Units Trip Generation

GP used the Institute of Transportation Engineers' (ITE) publication *Trip Generation*, 9th Edition to estimate the potential trip generation for the proposed 100 affordable housing units (net increase of 50 units). Based on Land Use Code (LUC) 220 – Apartment, the proposed 100 units of housing is forecast to generate the following trip ends:

Weekday:	665 trip ends
AM Peak Hour:	51 trip ends
PM Peak Hour:	62 trip ends

A trip end is a trip into or out of the site, thus a round trip is equal to two trip ends.

ITE trip rates are based on surveys of predominantly suburban locations rather than urban. In addition, more importantly, these surveys do not take into account whether the units are affordable units, which typically has a lower trip generation. Therefore, GP reviewed a trip generation count for Pearl Place which was taken on Tuesday, October 5, 2010 from 3:30 PM to 5:30 PM. Based on the counts, the actual trip generation for

Pearl Place was lower than the ITE forecast trip generation. Twenty peak hour trips were recorded at the site driveway for the 60 units in place when the count was completed, and no on-street parking associated with the facility was observed during the count. It should be noted that significant pedestrian trips to and from the site were observed, which is also anticipated for the Front Street project. This resulted in a PM peak hour trip generation rate of 0.33 trip ends per unit for the existing facility.

Given these results and the fact that the project is in an urban area, and the area is bikeable, walkable, and located near Portland METRO Routes 9a and 9b on Washington Avenue, our office has reduced the rates derived from ITE LUC 220 for apartments by 50% resulting in the following trip generation forecast for the 100 proposed affordable housing units:

Weekday:	334 trip ends
AM Peak Hour:	26 trip ends
PM Peak Hour:	31 trip ends

It should be noted that this is the same trip generation methodology used in the recent Bayside Anchor study completed by GP in May 2014 and approved by the City. This methodology was also used in the 58 Boyd Street study completed by GP in November 2016.

Trip Generation Credit

Typically, trip generation credit is given for any on-site use within the last ten years. Therefore, trips generated by the existing 50 affordable housing units can be subtracted from the forecasted future trip generation when determining the need for a MaineDOT Traffic Movement Permit. Since the existing development is also affordable housing units, the same methodology used to forecast the proposed site trip generation was used to estimate the trip generation credit. GP used ITE LUC 220 – Apartment and reduced the trip generation rates by half to estimate the traffic generated by the existing 50 affordable housing units. The following summarizes the trip generation credit:

Weekday:	167 trip ends
AM Peak Hour:	13 trip ends
PM Peak Hour:	15 trip ends

Total Site Trip Generation

The trip generation credit (50 units) has been subtracted from the forecast trip generation (100 units) to yield the net trip generation. The following table summarizes the trip generation for the site:

Net Trip Generation Summary

	Weekday	AM Peak Hour	PM Peak Hour
Proposed Trip Generation	334	26	31
Trip Generation Credit	167	13	15
Net Trip Generation	167	13	16

As shown in the table, the net trip generation for the site is forecast to be 13 trip ends during the AM peak hour and 15 trip ends during the PM peak hour. This level of trip generation does not require a MaineDOT Traffic Movement Permit since it is less than the 99 trip end threshold during a peak hour.

It should be noted that this is likely a conservative increase in trip generation because while the number of affordable housing units is doubling (50 units to 100 units), the number of bedrooms is only increasing by approximately 21 percent (182 bedrooms to 221 bedrooms).

IV. Crash Data

GP obtained the crash data for the immediate area from MaineDOT for the period of 2014-2016, the most recent period available at the time this study was prepared (attached). In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to classify as an HCL.

1. A critical rate factor of 1.00 or more for a three year period. A Critical Rate Factor (CRF) compares the actual accident rate to the rate for similar intersections in the State. A CRF of less than 1.00 indicates a rate of less than average; and
2. A minimum of eight crashes over the same three-year period.

Based on a review of the crash report from MaineDOT, there are two HCLs in the immediate vicinity of the site, both of which are segments of Washington Avenue. Additionally, there are two intersections on Washington Avenue that experienced high numbers of crashes over the past three years, although they do not have a CRF of 1.00 or greater. The following table summarizes the four locations, the number of crashes, the CRF, and whether or not it is a HCL.

Crash Summary

Location	# Crashes	CRF	HCL
Intersections			
Bates / Veranda / Washington	34	0.94	No
Presumpscot / Washington	27	0.89	No
Roadway Segments			
Washington Ave – Bates to Galvin	12	1.73	Yes
Washington Ave – Presumpscot to Cummings	12	1.51	Yes

As shown in the table, the two intersections of interest do not meet the criteria for a HCL, but the two roadway segments do. Typically, GP would examine the police reports for the collisions that occurred to identify crash patterns. However, it is our understanding that the City is currently exploring improvements for this area of Washington Avenue, so crash patterns may be changed as a result of those efforts. It should also be reiterated that the proposed expansion is only increasing traffic by 13 and 16 trip ends during the AM and PM peak hours respectively.

V. **Parking Evaluation**

While PHA wants to provide adequate parking for the project, parking results in a loss of open space, increases stormwater impacts, and uses valuable urban land. At the same time, providing too little parking would have adverse effects on residents and the surrounding neighborhood. The applicant's goal through the parking demand analysis process is to find the appropriate ratio of parking spaces. Our office has data suggesting actual parking demand at 100% capacity will be below the one space per unit. To estimate the parking demand for the proposed project, GP consulted two sources; a parking use inventory of the existing East Bayside PHA properties that was conducted for the Bayside Anchor study, and other relevant parking studies GP has completed. These are summarized below:

Parking Study of Existing East Bayside PHA Properties and On Street Parking

In support of the 58 Boyd Street project, GP completed an inventory of occupied and available parking spaces for the East Bayside PHA properties as well as the adjacent neighborhood streets on Sunday evening, September 10th 2017 every 45 minutes from approximately 9 PM to midnight. This represents a time period when most residents would be parked in the neighborhood. The peak period, when the highest number of vehicles were parked throughout the neighborhood, occurred at midnight. A summary of the results for the peak period is presented below:

Parking Survey Results within East Bayside PHA Properties

- Highest Demand observed in PHA Parking Lots: 96 spaces
- Total Parking Lot Spaces: 162 Spaces
- Total Available Spaces in Parking Lots: 66 spaces

According to occupancy information furnished by PHA, 197 units of the 201 total units were occupied as of September 19, 2017. Therefore, the overall parking ratio within the PHA off street lots was 0.49 (96/197) spaces per unit. It should be noted that 144 units have parking stickers to allow them to park in PHA lots, but the peak demand in the lots was 96 vehicles, which is less than the number of stickered vehicles. The peak demand is approximately 0.67 (96/144) spaces used per sticker.

On Street Parking for Area Bounded by Anderson, Cumberland, Greenleaf, Oxford, Madison and Boyd Streets

- Highest On Street Demand Observed: 212 spaces
- Total On Street Spaces: 348 spaces
- Total Available Spaces On Street: 136 spaces

This data shows there was substantial available parking within the neighborhood. While 66 spaces were available within the PHA parking lots, some residents may be parking on the street. Therefore, to estimate the total parking demand associated with the existing PHA properties, GP included the number of occupied spaces adjacent to PHA properties, which were estimated to be 80 spaces. Adding these additional spaces to the 96 spaces occupied in the existing PHA lots results in an overall existing parking ratio of 0.89 spaces per occupied unit for the PHA housing properties. This is conservatively high since the inventory was generous when attributing the on street parking to the PHA properties.

GP also determined the number of unoccupied on and off street parking spaces within 300 and 500 feet of 58 Boyd Street. The data summarized below is for 12 midnight, which was the peak period observed:

Unoccupied parking within 300 feet of the site:

- Parking lots: 8 spaces
- On Street spaces: 17 spaces
- Total: 25 spaces

Unoccupied parking within 500 feet of the site:

- Parking lots: 38 spaces
- On Street spaces: 41 spaces
- Total: 79 spaces

Other Relevant Parking Studies

GP reviewed data from other projects that were on file to estimate an appropriate parking ratio for this project which is summarized below:

Island View Apartments in Portland, Maine

This inventory was performed on July 12, 2004 from 6:00 PM to 9:00 PM. Island View Apartments is a 70-unit apartment building on the corner of North Road and Walnut Road in Portland. It contains a total of 84 parking spaces, 29 of which are designated visitor parking only, and two of which are handicap parking. In the peak half hour period, a maximum of 49 parking spaces were occupied. This gives a demand of 0.70 parking spaces per dwelling unit.

Previous Parking Occupancy Study

As part of studies for similar projects in the past, GP examined the parking occupancy of apartment buildings in downtown Portland with dedicated parking lots, either behind or within the building as part of another application. GP completed parking occupancy counts from 10-11 PM (within the peak period, based on ITE and Urban Land Institute {ULI} data) at 53 Danforth Street, 645 Congress Street, and Walker Terrace (at the corner of Congress Street and Walker Street) on Tuesday, October 26, 2010.

In addition, GP referenced the parking supply for Franklin Towers and Oak Street Lofts. Franklin Towers has 200 units and, based on aerial data, a parking supply of 58 spaces. Oak Street Lofts has 37 units and 16 parking spaces, although it should be noted that half of the spaces (eight) are for motorcycles. For the purposes of this assessment it is assumed that the peak demand at both of these facilities is at 100% occupancy. The following table summarizes the calculated parking demand for each facility based on the occupancy counts:

Parking Demand Studies Summary

Facility	Number of Units	Peak Demand (occupied spaces)	Demand Rate (spaces per unit)
53 Danforth	43	29	0.67
645 Congress	56	28	0.50
Walker Terrace	40	20	0.50
Oak Street Lofts	37	16*	0.43
Franklin Towers	200	58**	0.29
Average Parking Demand (spaces per unit)			0.48

*Assumes 100% occupancy at Oak Street Lofts

**Assumes 58 spaces based on aerial imagery and 100% occupancy at Franklin Towers

As shown in the table, the parking occupancy counts for various facilities in Portland indicate an average need for 0.48 parking spaces per apartment unit within the Portland Peninsula.

Recommended Parking Ratio

Based on the level of parking demand at the above referenced studies, and the planned implementation of the Transportation Demand Management Plan, it is the opinion of GP that an appropriate parking demand rate for the proposed Front Street project is 0.75 spaces per unit to achieve 100% capacity. This is consistent with the parking rate used for the recent Bayside Anchor and 58 Boyd Street projects.

Existing Availability Parking Study

To understand more about the current parking conditions, GP completed a general review of off-street parking within the neighborhood (see attached Parking Occupancy Map). In addition, we also field reviewed the four primary parking lots associated with the existing 50 units. The parking evaluation was completed at approximately 10:30 PM on a Sunday night (July 9, 2017). Sunday nights are typically a good time to gather this type of data since most people are at home at this time on a Sunday starting to prepare for the up coming week. The streets are not striped for parking spaces, so to complete this evaluation, we based the on-street parking capacity on information provided by the City. For purposes of determining spaces, they assume a parking space is 20 feet in length, parking stops 5 feet from a driveway, and 20 feet from the centerline of a crosswalk. We also eliminated those areas where parking was not allowed. The following table summarizes the results of the evaluation. The results of the parking evaluation are also shown on the attached Figure 1.

Parking Evaluation Summary

Segment	Counted	Capacity	Available
Front St. (Johansen St. to West Presumpscot St.)	22	65	43
Front St. (West Presumpscot St. to Randall St.)	5	34	29
Illsley St. (West of Cummings St.)	0	1	1
Illsley St. (Cummings St. to West Presumpscot St.)	11	22	11
Illsley St. (West Presumpscot St. to Randall St.)	10	35	25
West Presumpscot St. (Washington Ave. to Illsley St.)	5	13	8
West Presumpscot St. (Illsley St. to Front St.)	13	25	12
Randall St. (Illsley St. to Front St.)	3	21	18
Illsley St. Parking Lot	6	13	7
Front St. Western Parking Lot	4	13	9
Front St. Eastern Parking Lot	5	13	8
Front Street Parking Lot	9	11	2
Total	93	266	173

As can be seen, there is ample existing on-street parking availability. The existing on-street parking availability combined with the the proposed off-street parking spaces for the proposed development, which will remove vehicles from the street, will provide more than enough parking for neighborhood residences. The attached Figure I shows the percent occupancy of each street and lot. As can be seen from the Figure, with the exception of one short section of West Presumpscot Street (which is still less than 75% capacity), the adjacent roadway network is less than 50% occupied. This includes the streets that are directly adjacent to the existing site.

Concerns were raised at a recent neighborhood meeting that residences may not want to pay to be able to park within the parking lots, and instead opt to park on the street. It is my understanding that PHA reviewed how many of their residences had paid for an off-street parking pass to park within the parking lots and that all 50 residences had a sticker. There is a potential that some units have more than one vehicle, and do park on the street; however, from the above on-street parking evaluation, it is clear there is still more than enough on-street parking.

VI. Neighborhood Comments

The applicant hosted a neighborhood meeting on May 17, 2017 to provide the neighborhood with details on the proposed project and to listen to the comments and concerns regarding the redevelopment. The minutes from the meeting are attached. The primary traffic comments from the neighborhood are summarized as follows with preliminary responses:

Comment: Several attendees voiced a concern regarding anticipated increases in traffic volumes.

Response: As detailed in Section III of this Study, the development is forecast to increase the existing site trip generation by 13 AM peak hour trip ends and 16 PM peak hour trip ends. This level of trip generation is not anticipated to significantly impact the operation of the adjacent roadway network

Comment: Attendees were concerned with the speed of traffic through the neighborhood

Response: Although not discussed in this study, PHA has expressed a willingness to explore potential traffic calming measures for the immediate neighborhood and is pursuing this with the City. They recognize the importance of maintaining reasonable speeds throughout the neighborhood. They are also sensitive to consistency of speed throughout the neighborhood and not try to slow traffic in one area only to have drivers divert and speed through other areas.

Comment: The neighborhood feels parking on Front Street is overused and hazardous. Additional concern that there will not be enough parking provided off-street.

Response: Parking is detailed in Section V of this study. Based on that evaluation the parking demand for 100% capacity is forecast at approximately 75 parking spaces.

VII. Transportation Demand Management (TDM) Plan

PHA has requested the development of a Transportation Demand Management (TDM) Plan for this project that will support the City's transportation and environmental sustainability goals as well as the PHA's Green Policy by encouraging and promoting bicycling, walking, and use of transit. Avesta Housing Management will be managing the project for PHA and is very familiar with the importance of a TDM Plan. The following is a description of the elements of the TDM Plan.

TDM Coordinator

Avesta has a Property Manager who will coordinate the TDM Plan. The TDM Coordinator will be responsible for posting changes and updates to the METRO schedule and potential UHaulCarshare information in the lobby as well as other information relevant to promoting and encouraging the greater use of bicycling, walking, and bus-based transit. Portland Housing is also striving to have a Transportation Demand Management line item approved for the operating budget to help further subsidize METRO passes and potentially a UHaulCarShare system and Lyft personal ride share service.

PHA Goals for Parking

In addition to adopting the philosophy of the City in trying to reduce the need for parking spaces and encourage other modes of travel, PHA has also identified internal goals as follows:

- Provide limited, safe, well managed parking for PHA / PHDC residents
- Reduce agency costs of maintaining parking areas
- Reduce vehicle congestion
- Increase tenants use of public transportation
- Utilize PHA land more efficiently, making it available for other purposes
- Reduce the costs of new housing development by building / providing less parking
- Reduce the cost of housing to tenants
- Reduce fuel usage and carbon emissions, consistency with PHA Green Policy
- Increase resident wellness

Parking Requirements in Lease

The following are key parking requirements that will be detailed in the lease agreement:

- One parking space per household provided (if available at site)
- Tenants must register vehicle with PHA
- Vehicle must be kept operable, inspected and registered with State of Maine
- Eligible registered vehicles receive a PHA sticker to be displayed
- Tenants will be charged an annual \$60.00 Parking Reservation Fee to help off-set costs of maintaining parking areas and administering parking rules. Monthly \$5 charge on one vehicle allowed to be parked on site

Automobile Parking Reduction Strategies

The Applicant proposes to take the following measures to reduce the demand for vehicles:

Bicycle Parking

PHA Housing is proposing to provide a total of 50 parking spaces for bicycles on-site, with 40 of these within the buildings and others on outside racks. The bicycle shelter will provide increased bicycle security and protection from the weather.

Encourage Use of Local Transit

The Front Street housing development is a walkable distance of 0.2 miles away from the closest METRO bus stop, which is located on Washington Avenue. Avesta's TDM Coordinator will provide route maps, schedules, and ticket information in packets along with their lease agreement. As PHA does for its public housing residents, Front Street will potentially provide discounted monthly Metro bus passes to households, with a preference to families with no vehicle, depending on MaineHousing requirements for subsidizing METRO passes with parking fees. If allowed, Front Street would propose the following:

- \$45 monthly passes will be reduced to \$25
- Maximum of 2 passes per household
- Work with Metro on development and implementation of bus pass program

UHaulCarShare

In Portland, the UHaulCarShare service currently provides a total of seven vehicles, one of which is utilized by Avesta Housing at their 409 Cumberland development. This service is a shared car program that allows people to rent the vehicle for various trips. Based on a review of June 2015 to May 2016 data, the vehicle used by residents of 409 Cumberland Avenue was used for an average of 30 trips per month with an average distance of 39 miles per trip. The closest vehicle to the Front Street development is located at 115 Congress Street, which is approximately a 1.5 mile walk from the site. These vehicles are available on an hourly or daily basis. PHA will make residents aware of and encourage use of this service, which will allow for use of a car for certain trips, which can reduce the need for an owned car. Information will be provided to each incoming resident with their lease agreement.

Sidewalk Facilities

Sidewalks surround the proposed project encouraging walking to and from the site. In addition, the site is in close proximity to the Back Cove Trail and to Payson Park, part of the Portland Trail system. PHA is also working with the Parks Department to establish a better connection to Payson Park.

Tenant Packets

Upon signing a lease, each tenant will be provided with an extensive packet which will include information on transportation incentives and resources. Tenant packets will, at a minimum, include:

- Information on METRO pass reduced fees or free ride tickets to be provided by PHA
- The Greater Portland Transit Guide and other bus transit trip planning resources
- Registration and program information for UHaulCarShare
- Bicycle commuting information and other resources gathered from the Bicycle Coalition of Maine, the Portland Gear Hub Bicycles for All Mainers Program, and Bicycle Meet Up commuter program
- Portland Trails map

Education

Work with Portland Metro and Greater Portland Council of Governments to educate and market the use of public transit in the Portland area to PHA residents. It is our understanding that the following information will be provided to tenants:

- Metro plans to increase the number of bus shelters along routes
- Metro has expanded service to Yarmouth and Brunswick
- Metro will be launching “real time bus arrival information” via website, text message and mobile applications
- Educate potential users on the average annual costs associated with owning a car (approximately \$5,822/year) and the savings if they were to use the bus

Monitoring

As part of the TDM Plan monitoring program, Avesta Property Management will assess the utilization of its on and off site parking on an ongoing basis and will monitor the operation of the parking areas. Demand for handicapped parking will be monitored on a monthly basis. Avesta Property Management will track tenant requests for additional on-site bicycle and scooter/motorcycle parking.

One year after initial occupancy and annually thereafter, Avesta Property Management will revisit the TDM Plan, taking into account the following:

- Tenant vehicle ownership (bicycle, scooter/motorcycle, automobile)
- Tenant parking utilization of on and off street parking, including nearby parking garages and on-street parking spaces
- The means of travel by tenants (bus, walk, bicycle, automobile, scooter/motorcycle, car share, carpool, or other)

Avesta Property Management will update the TDM Plan and submit a draft plan to the City's TDM Manager for review and comments. Should the vehicle ownership of the tenants exceed 1.0 spaces per unit or 100 spaces, or specific parking issues are identified, additional TDM measures and/or parking measures will be considered.

Timetable for Action Items

This project will be managed by Avesta Property Management. The applicant will work with the City in establishing expected timelines for each of the action items.

Appendix

Trip Generation Calculations
MaineDOT Crash Data
Parking Occupancy Map
Neighborhood Meeting Minutes

JN: 3323
 Project Description: Front Street Affordable Housing
 Project Location: Portland, Maine
 Date: 6/13/2017

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

**Apartment
 Land Use Code (LUC) 220**

Dwelling Units: Proposed 100

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.65 (X)	88	665	50%	50%	333	332	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	51	20%	80%	10	41	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	62	65%	35%	40	22	N/A
AM Peak Hour of Generator	T = 0.55 (X)	83	55	30%	70%	17	38	N/A
PM Peak Hour of Generator	T = 0.67 (X)	85	67	60%	40%	40	27	N/A
Saturday	T = 6.39 (X)	15	639	50%	50%	320	319	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	52	**	50%	26	26	N/A

* Percentages rounded to nearest 5%

** Not Available (Assumption)

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.06 (X) + 123.56	88	730	50%	50%	365	365	0.87
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	53	20%	80%	11	42	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	73	65%	35%	47	26	0.77
AM Peak Hour of Generator	T = 0.54 (X) + 2.45	83	56	30%	70%	17	39	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 14.91	85	75	60%	40%	45	30	0.80
Saturday	T = 7.85 (X) - 256.19	15	529	50%	50%	264	265	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	60	**	50%	30	30	0.56

* Percentages rounded to nearest 5%

** Not Available (Assumption)

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

Rt 26 area

REPORT PARAMETERS

Year 2014, Start Month 1 through Year 2016 End Month: 12

Route: 0026X	Start Node: 18737 End Node: 17040	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560403	Start Node: 13537 End Node: 13547	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0560302	Start Node: 13534 End Node: 13537	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0560307	Start Node: 13534 End Node: 17036	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560391	Start Node: 13538 End Node: 13552	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 0560609	Start Node: 13549 End Node: 17037	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560609	Start Node: 13553 End Node: 13535	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0560599	Start Node: 13550 End Node: 17038	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560599	Start Node: 13536 End Node: 13550	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560176	Start Node: 13551 End Node: 17039	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node

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

Rt 26 area

REPORT PARAMETERS

Year 2014, Start Month 1 through Year 2016 End Month: 12

Route: **0560609**

Start Node: **13535**

Start Offset: **0**

☒ Exclude First Node

End Node: **13549**

End Offset: **0**

☒ Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes																
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF		
18737	0026X - 1.21	Int of BATES ST VERANDA ST WASH AV SB WASHINGTO	9	34	0	1	2	6	24	27.3	11.233	1.01	1.07	0.00		
												Statewide Crash Rate:	0.71			
17036	0026X - 1.27	Int of GALVIN ST, WASHINGTON AV	2	7	0	0	0	2	5	28.6	8.689	0.27	0.29	0.00		
												Statewide Crash Rate:	0.13			
17037	0026X - 1.32	Int of RANDALL ST WASHINGTON AV	2	5	0	0	1	2	2	60.0	8.769	0.19	0.29	0.00		
												Statewide Crash Rate:	0.13			
13583	0026X - 1.35	Int of CHURCHILL ST, WASHINGTON AV	2	6	0	0	0	2	4	33.3	8.732	0.23	0.29	0.00		
												Statewide Crash Rate:	0.13			
17038	0026X - 1.41	Int of PRESUMPCOT ST W PRESUMPCOT ST WASHINC	9	27	0	1	2	6	18	33.3	9.134	0.99	1.11	0.00		
												Statewide Crash Rate:	0.71			
17039	0026X - 1.50	Int of CUMMINGS ST WASHINGTON AV	2	2	0	0	0	0	2	0.0	6.859	0.10	0.31	0.00		
												Statewide Crash Rate:	0.13			
A13547	0026X - 1.55	Int of JOHANSEN ST, WASHINGTON AV	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00		
												Statewide Crash Rate:	0.13			
P17040	0026X - 1.56	Int of OAKLEY ST WASHINGTON AV	2	3	0	0	0	1	2	33.3	6.691	0.15	0.31	0.00		
												Statewide Crash Rate:	0.13			
13537	0560403 - 0	Int of FRONT ST JOHANSEN ST	2	0	0	0	0	0	0	0.0	0.085	0.00	0.09	0.00		
												Statewide Crash Rate:	0.14			
13534	0560302 - 0	Int of FRONT ST GALVIN ST	2	0	0	0	0	0	0	0.0	0.040	0.00	-1.25	0.00		
												Statewide Crash Rate:	0.14			
13535	0560302 - 0.04	Int of FRONT ST RANDALL ST	2	0	0	0	0	0	0	0.0	0.088	0.00	0.12	0.00		
												Statewide Crash Rate:	0.14			
13536	0560302 - 0.15	Int of FRONT ST W PRESUMPCOT ST	2	1	0	0	0	0	1	0.0	0.102	3.27	0.25	13.15		
												Statewide Crash Rate:	0.14			
13538	0560307 - 0.08	0503952 POR,ILLSLEY,GALVIN ST.	2	0	0	0	0	0	0	0.0	0.069	0.00	-0.15	0.00		
												Statewide Crash Rate:	0.14			
13549	0560391 - 0.04	0503963 POR,ILLSLEY,RANDALL ST.	2	0	0	0	0	0	0	0.0	0.118	0.00	0.35	0.00		
												Statewide Crash Rate:	0.14			
13550	0560391 - 0.14	Int of ILLSLEY ST W PRESUMPCOT ST	2	0	0	0	0	0	0	0.0	0.156	0.00	0.48	0.00		
												Statewide Crash Rate:	0.14			
13551	0560391 - 0.24	0503965 POR,ILLSLEY,CUMMINGS ST.	2	0	0	0	0	0	0	0.0	0.051	0.00	-0.66	0.00		
												Statewide Crash Rate:	0.14			
13552	0560391 - 0.27	0503966 POR,ILLSLEY ST,END	2	0	0	0	0	0	0	0.0	0.011	0.00	-10.20	0.00		
												Statewide Crash Rate:	0.14			
13553	0560609 - 0	0503967 POR,,RANDALL ST,END	2	0	0	0	0	0	0	0.0	0.017	0.00	-5.33	0.00		
												Statewide Crash Rate:	0.14			
Study Years: 3.00		NODE TOTALS:		85	0	2	5	19	58	30.6	60.844	0.47	0.43	1.08		

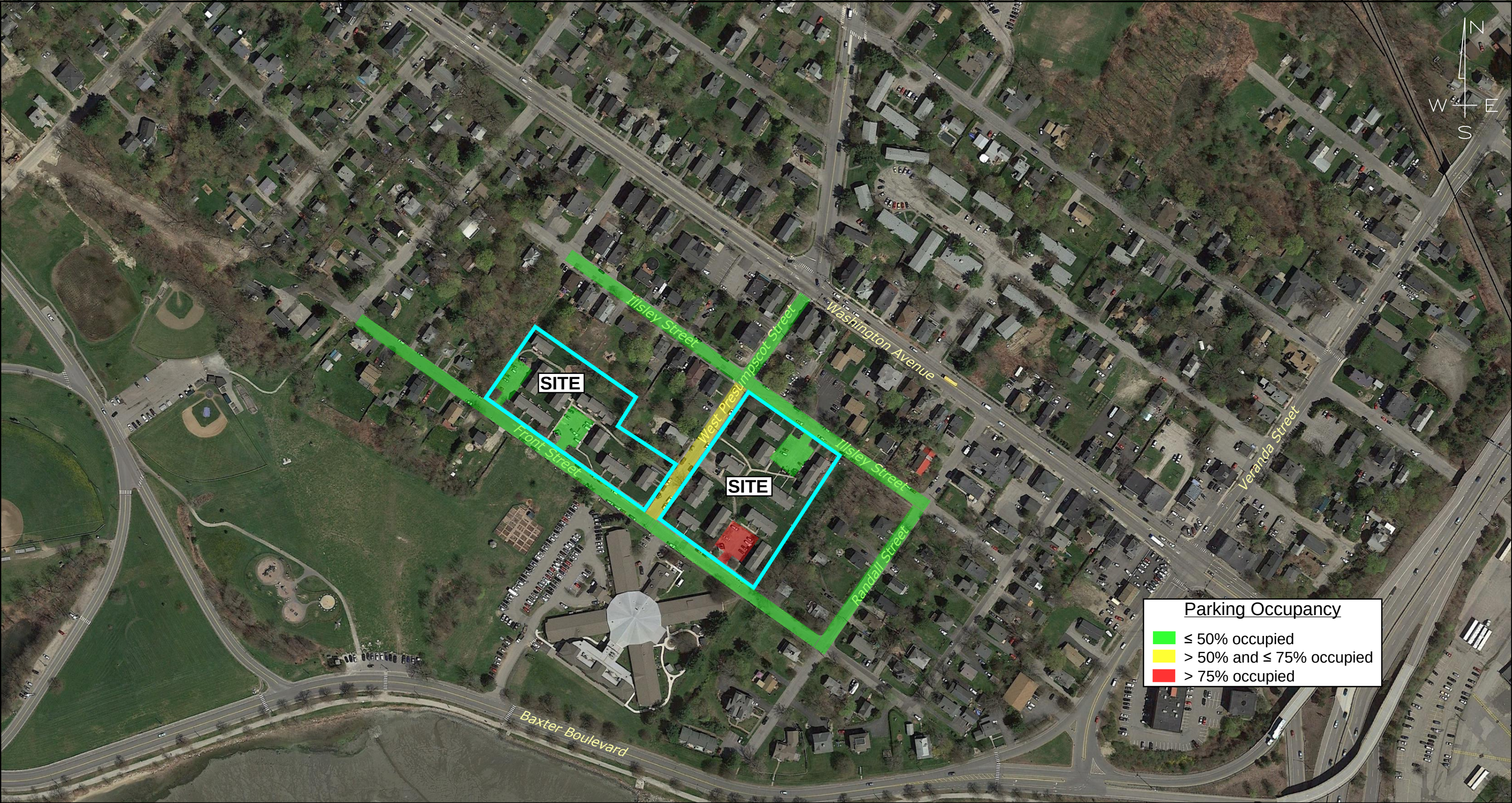
Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury A	Crashes B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
17036	18737	3123985	0 - 0.06	0026X - 1.21 ST RTE 26	0.06	2	12	0	0	1	0	11	8.3	0.00515	776.24	448.69	1.73
Int of GALVIN ST, WASHINGTON AV														Statewide Crash Rate: 193.12			
17036	17037	3120740	0 - 0.05	0026X - 1.27 ST RTE 26	0.05	2	2	0	0	0	1	1	50.0	0.00436	153.02	467.99	0.00
Int of GALVIN ST, WASHINGTON AV														Statewide Crash Rate: 193.12			
13583	17037	3123939	0 - 0.03	0026X - 1.32 ST RTE 26	0.03	2	1	0	0	0	0	1	0.0	0.00261	127.56	533.65	0.00
Int of CHURCHILL ST, WASHINGTON AV														Statewide Crash Rate: 193.12			
13583	17038	3130464	0 - 0.06	0026X - 1.35 ST RTE 26	0.06	2	5	0	0	0	1	4	20.0	0.00521	319.80	447.44	0.00
Int of CHURCHILL ST, WASHINGTON AV														Statewide Crash Rate: 193.12			
17038	17039	3129290	0 - 0.09	0026X - 1.41 ST RTE 26	0.09	2	12	0	0	2	0	10	16.7	0.00618	647.14	429.04	1.51
Int of PRESUMPCOT ST W PRESUMPCOT ST WASHINGTON AV														Statewide Crash Rate: 193.12			
13547	17039	188353	0 - 0.05	0026X - 1.50 ST RTE 26	0.05	2	4	0	0	1	2	1	75.0	0.00340	391.74	498.42	0.00
Int of JOHANSEN ST, WASHINGTON AV														Statewide Crash Rate: 193.12			
13547	17040	3130189	0 - 0.01	0026X - 1.55 ST RTE 26	0.01	2	0	0	0	0	0	0	0.0	0.00066	0.00	745.15	0.00
Int of JOHANSEN ST, WASHINGTON AV														Statewide Crash Rate: 193.12			
13537	13547	188337	0 - 0.12	0560403 - 0 RD INV 05 60403	0.12	2	0	0	0	0	0	0	0.0	0.00012	0.00	1732.01	0.00
Int of FRONT ST JOHANSEN ST														Statewide Crash Rate: 401.45			
13534	13535	188330	0 - 0.04	0560302 - 0 RD INV 05 60302	0.04	2	0	0	0	0	0	0	0.0	0.00001	0.00	-5673.21	0.00
Int of FRONT ST GALVIN ST														Statewide Crash Rate: 401.45			
13535	13536	188332	0 - 0.11	0560302 - 0.04 RD INV 05 60302	0.11	2	1	0	0	0	0	0	0.0	0.00004	7412.68	1138.86	6.51
Int of FRONT ST RANDALL ST														Statewide Crash Rate: 401.45			
13536	13537	188335	0 - 0.16	0560302 - 0.15 RD INV 05 60302	0.16	2	1	0	0	0	0	1	0.0	0.00012	2897.34	1730.97	1.67
Int of FRONT ST W PRESUMPCOT ST														Statewide Crash Rate: 401.45			
13534	13538	188331	0 - 0.08	0560307 - 0 RD INV 05 60307	0.08	2	0	0	0	0	0	0	0.0	0.00004	0.00	1021.50	0.00
Int of FRONT ST GALVIN ST														Statewide Crash Rate: 401.45			
13538	17036	188339	0 - 0.04	0560307 - 0.08 RD INV 05 60307	0.04	2	2	0	0	0	0	2	0.0	0.00003	21847.89	333.98	65.42
0503952 POR,ILLSLEY,GALVIN ST.														Statewide Crash Rate: 401.45			
13538	13549	188338	0 - 0.04	0560391 - 0 RD INV 05 60391	0.04	2	1	0	0	0	0	1	0.0	0.00000	81539.47	-	0.00
0503952 POR,ILLSLEY,GALVIN ST.														Statewide Crash Rate: 25630.05			
13549	13550	188355	0 - 0.10	0560391 - 0.04 RD INV 05 60391	0.10	2	3	0	0	0	0	3	0.0	0.00004	26599.28	828.23	32.12
0503963 POR,ILLSLEY,RANDALL ST.														Statewide Crash Rate: 401.45			
13550	13551	188357	0 - 0.10	0560391 - 0.14 RD INV 05 60391	0.10	2	0	0	0	0	0	0	0.0	0.00004	0.00	884.43	0.00
Int of ILLSLEY ST W PRESUMPCOT ST														Statewide Crash Rate: 401.45			
13551	13552	188359	0 - 0.03	0560391 - 0.24 RD INV 05 60391	0.03	2	0	0	0	0	0	0	0.0	0.00001	0.00	-	0.00
0503965 POR,ILLSLEY,CUMMINGS ST.														Statewide Crash Rate: 14016.71			
13549	17037	188356	0 - 0.04	0560609 - 0.15 RD INV 05 60609	0.04	2	0	0	0	0	0	0	0.0	0.00005	0.00	1167.02	0.00
0503963 POR,ILLSLEY,RANDALL ST.														Statewide Crash Rate: 401.45			
13535	13553	188334	0 - 0.07	0560609 - 0 RD INV 05 60609	0.07	2	0	0	0	0	0	0	0.0	0.00002	0.00	-457.55	0.00
Int of FRONT ST RANDALL ST														Statewide Crash Rate: 401.45			

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury A	Crashes B	Percent C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
13550	17038	188358	0 - 0.05	0560599 - 0.08	0.05	2	2	0	0	0	2	0.0	0.00007	9201.43	1601.95	5.74	
Int of ILLSLEY ST W PRESUMPCOT ST				RD INV 05 60599										Statewide Crash Rate: 401.45			
13536	13550	188336	0 - 0.08	0560599 - 0	0.08	2	3	0	0	0	3	0.0	0.00007	13698.63	1606.05	8.53	
Int of FRONT ST W PRESUMPCOT ST				RD INV 05 60599										Statewide Crash Rate: 401.45			
13551	17039	188360	0 - 0.05	0560176 - 0	0.05	2	2	0	0	0	1	0	100.0	0.00002	31491.10	-994.82	0.00
0503965 POR,ILLSLEY,CUMMINGS ST.				RD INV 05 60176										Statewide Crash Rate: 401.45			
13535	13549	188333	0 - 0.08	0560609 - 0.07	0.08	2	0	0	0	0	0	0.0	0.00006	0.00	1442.38	0.00	
Int of FRONT ST RANDALL ST				RD INV 05 60609										Statewide Crash Rate: 401.45			
Study Years:		3.00		Section Totals:		1.54	51	0	0	4	5	40	17.6	0.02832	600.26	317.23	1.89
				Grand Totals:		1.54	136	0	2	9	24	98	25.7	0.02832	1600.69	440.28	3.64

Parking Occupancy Map



Front Street Development
PORTLAND, MAINE

Front Street Re-Development Meeting Minutes May 17, 2017, Presumpscot Elementary School

Team Members Present:

PHA - Mark Adelson (Executive Director), Jay Waterman (Director of Development), Trevor Nugent (Dir. Of public Housing), Emily Mancini-Fitch (Housing Services Manager), Shirley Peterson (PHA Board President)
Utile Architecture and Design - Jonathan Evans, Katie Wirtz, Evan Parkinson
Government Strategies - Kim Cook
Carroll Associates Landscape Architecture - Pat Carroll

Portland Housing Authority hosted a neighborhood meeting regarding the re-development of the Front Street public housing project in Portland's East Deering neighborhood. The meeting was held at the Presumpscot Elementary School on May 17, 2017 from 6:30-8:00pm.

The meeting was noticed by mail to property owners within 500 feet of the proposed development using the City Planning Department's mailing list. PHA also noticed all Front Street Public Housing residents with flyers

Sign-in sheets and the flyer that was sent are attached.

Mark Adelson, Executive Director, opened the meeting with introductions and gave some background on the Housing Authority and PHA's Strategic Vision Plan for renovation or re-development of its 1,000+ housing units in Portland

Jonathan Evans from Utile Architecture and Design, presented the project, the neighborhood context. Jonathan gave a history of project, noted it is at the end of its useful life. Discussed the needs of the neighborhood. There are currently 182 bedrooms in 18 bldgs plus the community room. He said it is important to look at the community needs, listed from previous meetings. Opportunities:

- meet needs of project but respectful of neighborhood
- scale of housing
- traffic calming measures on Presumpscot St.

Jonathan showed existing and proposed views of project.

Jay Waterman discussed the process at the planning board, the schedule, and next steps. Pat Carroll, Landscape Architect, presented the site plan.

Comments from attendees (responses or discussion in italics):

- It appears that most residents of current development have more than 1 car. Sharon Kiley offered to sell her property to use as parking lots. Traffic speed on Presumpscot is fast and dangerous.

- Area needs more parking, residents have more than 1 car, parking on Front St and neighboring streets.
- Too many Front Street residents park on the street and the streets do not get plowed.
- Concern for location of school bus stop around development as it blocks traffic.
- Area resident wants it to be pedestrian friendly, enhance sidewalks, curb flares, improved pedestrian safety.
 - *Design team explained some of the ideas of pedestrian friendly design and connection to Payson Park; making all sidewalks that are in rough shape new and safe; better crosswalks and potential bump-outs for a shorter distance from curb to curb.*
- Concept design shown, the architecture is not in keeping with neighborhood. Looking for 'Maine' archtype, project is in 1922 neighborhood.
- The design shown with the flat roofs is too modern looking. We want brick exterior and a design that is in keeping with the neighborhood.
- It is a problem that people are cutting through the nursing home to Baxter Blvd.
- Wants to change neighborhood traffic habits, cut thru nursing home driveway to Baxter Blvd, wants some kind of blvd access. Other concern that senior housing would cut off access to the Blvd. if this were used too much.
- Need for a traffic study
 - *This is pending and will be submitted with the Site Plan application to the planning board*
 - *Jay Waterman gave an estimated timeframe for the project of a site plan application submission in Summer 2017 with a construction start in Fall of 2018 and occupancy in Fall of 2019.*
- Traffic Study should be done at different times of day to show the different usage and different cars.
- Changing nature of neighborhood; this is not India St or West End, different than other neighborhoods; there are challenges and opportunities; didn't like flat roofs
- Concern about design as too urban and would change the feel of the neighborhood; concern it is too dense.
- Concern about sewer capacity and school capacity for more children
 - *Jay noted that utilities (sewer/water) are through the City and Portland Water District. Unit mix has not been determined but there will be some 4-5 BR units and many more studios and 1BR units. It will also be mixed income at 80% affordable and 20% market rate.*
- Concern about new height being taller than current building height.
 - *It was noted that the 2-3 story buildings will not be any taller than the pitched roofs and will meet the zoning requirements for R-5 PRUD.*
- Playgrounds too close to windows, move away from buldings.
- Concern that buildings are too close to the road and need larger front yards for playing and neighbor interaction
 - *There will be setbacks and small front yards and stoops*
- Concern that distance from parking to unit entry is too far.
- An area resident asked the timing of project and the need for traffic study.
 - *Team noted that the project is going to planning board Fall 2017. Pat Carrol noted a traffic study is part of that submission to the planning board and that will*

help the planning board impose a number of off-street parking spaces

- Questioned scale of project, doubling number of units on site. Questioned speed table on Presumpscot; described using Cummings as escape to Washington Ave. Need to slow traffic on Randall and Johannsen.
- Too many cars parked on the street and people drive too fast in the neighborhood.
 - *This is something the team would like work with the area residents and the City on to find solutions because PHA does not want too many cars on the street or unsafe streets.*
- Need 2nd exit onto Washington Ave; questioned school population; questioned similarity to Washington Gardens; Issues with sewer system on Washington Avenue
- A Front Street resident asked about basements.
There will be no basements if Front Street is re-developed.
- Concern about sewer capacity and soils on this site.
 - *There is public sewer in the area and the Portland Water District said that it has the capacity to serve the proposed new project size and BR mix.*
- How is trash handled; school buses; questioned who takes care of housing.
 - *Trash service will take trash from rooms in buildings. No dumpsters.*
- Questioned ownership of property; where can she read about project; lack of outdoor space for individual residents
 - *There will be information on PHA's website soon. More information after submission to the planning board.*
- Questioned occupancy rate/ bedroom occupancy of 60% valid?
 - *The 60% only refers to the maximum number of people per bedroom under HUD rules. PHA tracks this and our occupancy is less than the maximum of 2 persons per bedroom by about 55% or about 1 person per bedroom.*
- Residents parking on streets, not in parking lots; main issues traffic, parking ,school impact
 - *There was discussion about existing number of bedrooms increasing only by 21% even though the number of units is going from 50 to 99.*
- Preference for community play areas to be separated from residential areas. Area resident has kids that have broken a window when using the play space close to her residence.
- There are only parking outlets to Front Street planned. There should be parking outlets to other streets.
 - *Design team noted driveways onto Illsley as well as Front Street.*
- Concern about doubling number of units and the amount of traffic.
- Could Cummings Street be built to ease traffic? Speed bumps on Johannsen and Randall a possibility?
 - *These are City issues that we could help the neighbors discuss with the City.*
 - *Discussion about Cummings street and turning it into a real street*
- Area resident asked if the management company will do a better job of keeping the trash picked up. Trash is a problem.
 - *Design Team noted that there will be indoor trash rooms and a trash service that picks up trash. The dumpsters and their enclosures will go away.*
- Concern for who manages the property.
- Would like to see a digital or hard copy of the presentation
 - *It was noted that the presentation and the meeting minutes would be on the PHA website.*

- Does not like the aesthetics of residents storing things outdoors. They should have storage. Prefer fenced back yards. Residents should all have private outdoor space.
- Having individualized outdoor spaces is important to residents. Residents in surrounding neighborhood have access to outdoor spaces.
- What is required for site plan application to the City planning board?
 - *Pat Carroll explained the level of plan details, performance guidelines, utilization rates, construction management plans, etc. that need to be submitted.*
- Traffic is too fast; Would like to feel invited into the new development and have areas for kids to play; wants to strengthen the sense of community.
 - *Team explained they want as much integration with the neighborhood as possible and make the design of the new development “permeable” so that area residents feel welcome walking through.*
- When is the next community meeting?
 - *2-3 months from this meeting after site plan submission. There is also a required public hearing at the planning board for anyone to come and give comments.*

END OF MEETING MINUTES

Note: This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

CITY OF PORTLAND
Planning & Urban Development Department

LEVEL II and LEVEL III SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file
Please confirm by electronically checking the boxes to the left

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

GENERAL APPLICATION DOCUMENTS

Yes ☒	NA ☐	Project Description Cover Letter with detailed project description
Yes ☒	NA ☐	Completed Checklist – Level I: Site Alteration (this document)
Yes ☒	NA ☐	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 Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☒	NA ☐	Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements
Yes ☒	NA ☐	Waiver Requests Written request for waiver describing request and reason Waiver Table
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

**LEVEL II AND LEVEL III 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 ☐	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes ☒	NA ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes ☐	NA ☒	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes ☒	NA ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes ☒	NA ☐	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes ☒	NA ☐	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes ☒	NA ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes ☒	NA ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes ☐	NA ☒	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

ENVIRONMENTAL AND LANDSCAPE FEATURES		
Yes ☒	NA ☐	Preservation of Significant Natural Features (14-526 (b) 1), if applicable • Trees, plants, habitats listed on State or Federal list of endangered or threatened • 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 consultants, determinations from applicable state agencies
Yes ☒	NA ☐	Landscaping and Landscape Preservation (14-526 (b) 2 a) • Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) • Protection measures of existing vegetation during construction • Protection measures within Shoreland Zone, if applicable
Yes ☒	NA ☐	Site Landscaping (14-526 (b) 2 b) • Screening and buffering of service areas and between non-residential and residential uses • Planting plans with plant schedule and sizes (Technical Manual, Section 4)
Yes ☒	NA ☐	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable • Landscaped islands within parking areas (Technical Manual, Section 4)
Yes ☒	NA ☐	Street Trees (14-526 (b) 2 b iii) • Existing Heritage or Feature Trees on site and measures to preserve • Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
ENVIRONMENTAL AND STORMWATER		
Yes ☒	NA ☐	Water Quality, Stormwater Management and Erosion Control (14-526 (b)3 a) • Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable • Erosion control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable • Subsurface sanitary sewage disposal and groundwater protection

PUBLIC INFRASTRUCTURE AND SAFETY		
Yes ☒	NA ☐	Consistency with City Master Plans (14-526 (c) 1) - Identify consistency with master plans - Proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes ☒	NA ☐	Public Safety and Fire Prevention (14-526 (c)) - Address Crime Prevention through Environmental Design (CPTED) (Technical Manual, Section 3) - Emergency vehicle access - Address consistency with public safety standards (Technical Manual, Section 3) - Submit a code summary referring NFPA 1 and all Fire Department standards (Technical Manual, Section 3) – Fire Checklist
Yes ☒	NA ☐	Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 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 - Proposed solid waste management facilities on-site and management for the site - Written evidence of the ability to serve from utility companies, as applicable
SITE DESIGN		
Yes ☒	NA ☐	Massing, Ventilations and Wind Impact (14-526 (d) 1) - Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable - Bulk, location or height impacts on adjoining structures - Identify and locate HVAC equipment and venting away from public spaces and residential properties - Identify screening and manufacturing specifications for noise, if applicable
Yes ☐	NA ☒	Shadows (14-526 (d) 2), if applicable Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes ☒	NA ☐	Snow and Ice Loading (14-526 (d) 3) Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes ☐	NA ☒	View Corridors (14-526 (d) 4), if applicable Protection of designated view corridors (Portland Design Manual, Appen. 1)

Yes ☐	NA ☒	Historic Resources (14-526 (d) 5), 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
Yes ☒	NA ☐	Exterior Lighting (14-526 (d) 6) • 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)
Yes ☐	NA ☒	Noise and Vibration (14-526 (d) 7) • Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements
Yes ☒	NA ☐	Signage and Wayfinding (14-526 (d) 8), if applicable • Signage plan showing the location, dimensions, height and setback of all existing and proposed signs. Signs in Historic Districts are reviewed by Historic Preservation staff • Proposed commercial and directional signage on site
Yes ☒	NA ☐	Zone Related Design Standards (14-526 (d) 5) • Address Historic Preservation Design Review, if applicable • Address any applicable design review standards by zone • Address submission requirements from Design Manual, page 1, addressing neighborhood context • Description of exterior materials, color, finish, and samples
Construction Management Plan		
Yes ☒	NA ☐	Construction Management Plan • Construction Management Document and Plan

**LEVEL II AND LEVEL III SITE PLAN
DRAWINGS CHECKLIST**

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs

RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)

- ☒ Must be in compliance with Technical Manual, Section 13

SITE PLAN(s) (stamped by Maine Licensed Engineer) including:

Existing Conditions

- ☒ Approximate location of structures on abutting property
- ☒ Topography
- ☒ Locate water courses
- ☒ Delineate wetlands
- ☒ Zone lines

Proposed Site Plan

- ☒ Ground floor area, and grade elevations for all buildings

Access, Circulation, and Parking

- ☒ Streets and intersections adjacent to site, any proposed geometric modifications
- ☒ Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- ☒ Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- ☐ Location and dimensions of proposed loading areas
- ☒ Existing and proposed transit infrastructure with dimensions/ engineering specifications
- ☒ Location of vehicle and bicycle parking with dimensions and engineering specifications

Site Considerations

- ☒ Identify snow storage areas
- ☒ Location of fire hydrants
- ☒ Location of solid waste management facilities

UTILITY PLAN including:

- ☒ Existing utilities on site and within public streets
- ☒ Location, sizing and directional flows of all existing and proposed utilities
- ☒ Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- ☒ Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- ☒ Existing grades and drainage
- ☒ Proposed grades
- ☒ Proposed stormwater management meeting Technical Manual (Section 5), standards
- ☒ Location and proposed alteration of a water course
- ☒ Preservation or alteration of wetlands

EROSION CONTROL

- ☒ Must be in compliance with Technical Manual, Section 5

LANDSCAPE PLAN including:

- ☒ Existing vegetation to be preserved and preservation measures
- ☒ Proposed landscaping and buffers
- ☒ Planting schedule

RECORDING PLAT, if applicable
☒ If Subdivision, must be in compliance with requirements of Section 14-496 (b)
ARCHITECTURAL PLANS AND RENDERINGS including:
☒ Exterior building elevations, color renderings, illustrations of all sides
☒ Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening
☒ Provide context drawings, if applicable (Design Manual, page 1)
☒ Floor plans



If Subdivision, must be in compliance with requirements of Section 14-496 (b)

ARCHITECTURAL PLANS AND RENDERINGS including:
☒ Exterior building elevations, color renderings, illustrations of all sides
☒ Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening
☒ Provide context drawings, if applicable (Design Manual, page 1)
☒ Floor plans



Exterior building elevations, color renderings, illustrations of all sides



Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening



Provide context drawings, if applicable (Design Manual, page 1)



Floor plans

Description of Project

Overview of Development Proposal

Portland Housing Development Corporation is initiating its next phase of redevelopment in the East Deering neighborhood to continue one of its strategic planning goals of increasing the supply of affordable housing in the City of Portland. For the Front Street Redevelopment Project the PHDC is proposing to replace the existing 50 family apartments at Front Street with a new multi-family apartment project containing a total of 105 new apartments and 8 homeownership units in seven (7) buildings for families and seniors with the following tentative unit mix:

- Studio- 2 units
- 1 bedroom – 51 units;
- 2 bedroom – 24 units;
- 3 bedroom – 24 units;
- 4 bedroom - 10 units;
- 5 bedroom - 2 units
- TOTAL - 113 dwelling units

The Goal of the project is to replace the aging existing housing, but also increasing the number of dwelling units on the property to better reflect the development potential of the property. Key to this project's success will be its compatibility with the existing neighborhood, and a tremendous effort has been made to understand the neighborhood issues and provide design solutions that benefit the residents and neighbors.

The site is located in an existing residential neighborhood with a mix of owner-occupied and rental housing. Multifamily rental is appropriate for and compatible with the site. Front Street Apartments' design is consistent with the style and type of construction historically found in East Deering Neighborhood and other residential neighborhoods in the area. The building organization relates to the local context with 2-3 story buildings relating to the street and off street parking pulled back to reinforce the building edges. The proposed site plan reinforces strong pedestrian connections through the project and along its perimeters, provides traffic calming measures along the public streets, appropriate off-street parking for the residents, reinforces the street edge of the neighborhood by placing all buildings oriented on a 'street' and adding front "porches" to encourage neighborhood interaction, and provides significant open space and other community facilities that help integrate the development with the existing neighborhood.

The project provides significant recreational open space for the residents and neighborhood. Passive recreation open space includes perimeter sidewalks, benches and other site amenities, common lawn areas and shaded sitting areas, pathway connections between Front and Illsley Streets, and an improved pedestrian connection into Payson Park and the nearby Community Gardens. Active recreation improvements include multiple open play areas, a central lawn, and multi-functional space at the Community Room.

Units are designed to serve the needs of residents. The existing Front Street project is very much family oriented, and contains a number of large (4-5 BR) apartments. The proposed redevelopment maintains a compatible unit mix assuring that these large families can return to the neighborhood once the project is complete. Amenities include interior and exterior community facilities, common laundry rooms, interior trash and bicycle storage, and community meeting space. The Front Street Apartments' design will meet and significantly exceed the City's Green Building Code. Front Street Apartments employs the *Passive House* principles to dramatically reduce energy demand and simplify overly complex and expensive multifamily mechanical systems.

The project will provide a mix of affordable and market-rate apartments with the goal of integrating the residents into the existing neighborhood. 84 apartments (80%) will be maintained as affordable units, and 6 of the homeownership units will meet the City's Inclusionary Zoning Workforce Housing definition, with residents that meet the following criteria:

- 69% of the rental units will be for households making at or below 50% of the Area Median Income (about \$41,500 for a family of 4).
- Fifty (50) of the 105 rental units will have Project Based Rental Assistance.
- 11% of the rental units would be for households earning up to 60% AMI.
- 10% of the units will have a set-aside for homeless households
- Another 10% of the units will have a preference for homeless or disabled households

The program includes 23 market rate units (20%) in a census tract that had 54% of its residents living below the poverty line as of the 2010 Census. We have also discounted our market rate rents by 5%-10% below what a recent market study showed for market-rate rents. By doing this, we are trying to reach the "workforce housing" households that the City is targeting in their recent housing needs study. Remaining units are targeted to households earning below 50% and 60% of area median income allowing for additional income diversity.

To minimize relocation impacts on the residents the project is intended to be constructed in three distinct phases. Phase One is located on the block east of West Presumpscot Street and will consist of 60 "family" units in four buildings. This Phase also includes construction of a Community Space and outdoor amenities for the entire development. Phase Two is designed as for senior residents, is proposed to occur immediately following completion of Phase One and will add another 45 apartments and associated site improvements. Phase Three consists of eight (8) townhouse style units that will be developed for home ownership.

The financial projections for the Project have been developed directly with our architectural design team and looking at current development and operating budgets of active projects. Hard and soft costs of development are based on both the specifics of the design as well as analyzing comparable developments in Portland. Operating expenses are consistent with area developer experience and using data from partners on the Bayside Anchor project. Rents are projected to be 11% to 64% below market ensuring a strong competitive position within the market. Finally, the financial projections - including prefunded replacement and operating reserves - conform to MaineHousing underwriting standards and the project characteristics should yield an extremely competitive application in the upcoming LIHTC round.

The development team assembled for Front Street Development Apartments features many of the most experienced and capable players in affordable housing in Portland and Maine.

Owner/Developer **PHDC** is the development subsidiary of Portland Housing Authority (PHA). PHA is the largest landlord in Portland and also manages the largest Section 8 program in Maine. **Jay Waterman**, PHDC's Director of Development, brings 6 years of experience as Avesta Housing's Director of Development and another 6 years as a leader in green building construction. Jay recently completed the Bayside Anchor project for the Housing Authority.

The project's Management Agent, **Avesta Housing Management Corporation** manages properties and reviews operating budgets for over 3,200 units in Maine and New Hampshire. PHDC will work closely with Avesta to ensure a financially viable project for the long-term.

Utile Architects has been retained to provide overall Architectural Design for the Project. Sub-consultants to Utile include **Carroll Associates Landscape Architects, Gorrill Palmer Consulting Engineers, and Ransom Consulting**.

Front Street Apartments is well positioned to move from planning and design into production upon receipt of City and LIHTC funding. Site Plan and Subdivision Approval is critical to being awarded funding from MaineHousing and it is anticipated this will be completed by August of 2019. The team is submitting an application to MaineHousing for LIHTC Funding in mid- September, 2019 and, pending approval of MaineHousing tax credits, the first Phase of the Project (60 DU) will be ready for construction in the Fall of 2020.

FRONT STREET APARTMENTS PROJECT SUMMARY

PHASE 1									
		Studio	1 Bed	2 Bed	3 Bed	4 Bed	5 Bed		
BUILDING 1		0	3	3	4	3	1	14 units	
LEVEL 1		0	3	1	1	1	0	6 units	
LEVEL 2		0	0	2	3	2	1	8 units	
BUILDING 2		0	3	4	3	3	0	13 units	
LEVEL 1		0	3	2	1	0	0	6 units	
LEVEL 2		0	0	2	2	3	0	7 units	
BUILDING 3		2	3	1	11	2	1	20 units	
LEVEL 1		2	1	1	3	0	1	6 units	
LEVEL 2		0	2	0	8	2	0	12 units	
BUILDING 4		0	3	4	4	2	0	13 units	
LEVEL 1		0	3	2	1	0	0	6 units	
LEVEL 2		0	0	2	3	2	0	7 units	
PHASE 1 TOTALS		2	12	12	22	10	2	60 units	
		2	12	24	66	40	10	154 total beds	
PHASE 2		0	39	6	0	0	0	45 units	
		0	39	12	0	0	0	51 total beds	
PHASE 3		0	0	6	2	0	0	8 units	
		0	0	12	6	0	0	18 total beds	
EXISTING CONDITIONS		0	0	0	25	18	7	50 units	
		0	0	0	75	72	35	182 total beds	

Significant Natural Features

The project site is a previously developed urban site. There are no significant plant species, communities, or specimens within the site.

There are no significant natural features on the site.

Solid Waste

All residential and office waste will be stored in appropriate trash/recycling containers internally in a trash rooms located within each building. These containers will be serviced by an independent solid waste contractor, on a regular basis. It will be the job of the building maintenance to move the trash/recycling receptacles out for the independent contractor.

All waste generated from the site preparation and general site work will be collected and sorted/separated on-site and disposed of properly, off-site, by a private contractor.

All construction waste will be collected and sorted/separated on-site in containers and managed by the general contractor.



Consulting
Engineers
and Scientists

Front Street Stormwater Management Narrative

Date: July 9, 2019
To: City of Portland
From: Thomas Nosal, P.E.
Peer Review: John Mahoney, P.E.
Location: Front Street, Portland, Maine

Executive Summary:

Surface stormwater runoff from roofs, parking areas and green space will be treated using FocalPoint Biofiltration systems, bio-retention cells, and pervious pavers. These systems will be designed to provide water quality treatment for a 1.6" rainfall event in order to qualify for extra stormwater credits. In general, the existing surface drainage patterns will be retained. Overflows from the stormwater management systems during heavy rain events will drain into catch basins or field inlets located in the FocalPoint systems or bio-retention cells. In the event that a catch basin or field inlet grate becomes blocked, the systems will be designed to overflow to the surface and the site will be graded to direct overflows towards the roadways and away from the buildings.

The site's existing stormwater system is connected to the City's combined sewer system, which is often overwhelmed during heavy rain events, resulting in the discharge of untreated sewerage into Casco Bay, Combined Sewer Overflows (CSO). The proposed stormdrain system will be completely separate from the sewer system, which will reduce the strain on the combined sewer system during heavy rains and, in turn, help to reduce the duration and frequency of CSOs.

Existing Conditions:

The Site consists of three parcels. Two are on Front Street at the intersection of West Presumpscot Street and the third is to the north, on the west side of West Presumpscot Street. The Western Parcel at 63 Front Street contains 71,256 square feet, the Eastern Parcel at 37 Front Street contains 100,253 square feet and the north parcel at 35 West Presumpscot Street contains 14,992 square feet, resulting in a total site area of . The site is currently occupied by 19 buildings (50 residential apartments and a community space), along with associated parking lots and walkways, with the remaining portion of the property being lawn area.

The site generally drains from the back of the lots towards Front Street and along Front Street, from northwest to southeast. Both parcels contain closed stormdrain systems that are combined with sewer services for the existing buildings. These combined drainage systems discharge to the City's combined sewers at various locations along Front Street and on West Presumpscot Street. The entire Front Street Site currently drains to combined sewers.

City of Portland

Based on the Cumberland County USDA soil survey GIS data, the existing soils on this site are all hydrological group D (poorly drained).

Proposed Development:

The applicant, Front Street Housing Redevelopment, LP, proposes to construct 7 new buildings (113 residential apartments and a community space), along with associated parking, walkways and landscaped areas. The proposed development will increase the site's impervious area from 71,323 square feet to 110,147 square feet, an increase of 38,824 square feet (0.89 acres)

In order to reduce the Site's impact on the City's combined drainage system, the applicant proposes to work with the City to construct a new separated stormdrain system within Front Street and West Presumpscot Street. This system, shown schematically on the civil plans, is proposed to discharge to an existing 48" stormdrain that crosses Front Street at the eastern edge of the site. In order to minimize long term maintenance and to maximize the potential for future separation projects, the applicant proposes to work in collaboration with the City on the final configuration/design of the new stormdrain system.

Stormwater Management – Basic Standards:

Erosion and sedimentation control measures are described on Sheet C8.0. Good housekeeping practices shall be in accordance with Maine DEP Best Management Practices. A post construction stormwater management plan and a stormwater BMP inspection and maintenance log are included with this submission.

Stormwater Management - Quality:

As shown on Sheet C5.0, the site is divided into fourteen sub-catchments. Treatment will be provided to impervious area in twelve of the sub-catchments using the FocalPoint biofiltration system. FocalPoint is a high-flow biofiltration media, engineered to provide a permeability rate in excess of 100 inches/hour. This high permeability facilitates treatment of relatively large impervious areas with systems with a relatively small footprint, making the FocalPoint system ideal for constrained sites and for minimizing excavation/removal of urban soils.

All of the FocalPoint systems have been sized to treat runoff generated by 1.6 inches of rainfall on their respective contributing areas, including both impervious area and landscaped areas. The FocalPoints are sized such that runoff generated by a 1.6" storm does not flow through the overflow in each system. See attached HydroCAD results and the table on Sheet C5.0 for additional detail.

The FocalPoint systems will be underdrained by R-Tanks, which is a modular system for stormwater storage and conveyance. The proposed R-Tanks will contain a maintenance row (see attached cut sheet). The maintenance row is proposed as an "approved equal" for the Maine DEP's "Isolator Row" requirement for FocalPoint.

Sub-catchment #3 will be treated using an underdrained bioretention cell, as it has a relatively small contributing drainage area. The ponding volume for this bio retention cell exceeds the sum of 1.0-inches

City of Portland

of runoff over its contributing impervious areas plus 0.4-inches of runoff over contributing landscaped areas.

All bio-filtration/retention systems will include stone energy dissipaters to disperse concentrated flows. Bio-filtration/retention systems that receive runoff from parking areas will have sediment forebays to pre-treat stormwater by capturing sand/sediment upstream of the rain garden filter media.

Impervious area in sub-catchment #6 will be treated using a pervious paver system, which will have a stone reservoir sized to hold 1.6 inches of runoff from the contributing impervious area plus 0.4 inches of runoff from the landscaped area. Based on the requirements outlined for run-on modular pervious pavement in Section 7.7.1 of the Maine Stormwater BMP Manual, the pervious pavers will require a crushed stone reservoir with a minimum thickness of 14" and a sand filter layer with a minimum thickness of 16".

Stormwater Management - Quantity:

Peak runoff rates for pre-development and post-development conditions are presented in the tables below, and HydroCAD results are attached. Analysis point A is the 30" combined sewer, to which the site currently drains. Analysis point A' is the 48" stormdrain in Front St, to which the proposed stormdrain will drain.

The applicant is requesting a waiver from the flooding standard for the following reasons.

- Because the proposed Site will drain to a separated stormdrain system that discharges directly to Back Cove, our stormwater management approach focuses on stormwater treatment; i.e. removing pollutants and cooling runoff before discharging to Back Cove.
- While our primary focus has been treatment, a substantial volume of stormwater storage is proposed as ponding depth in the bio-filtration/retention systems.
- In order to strictly meet the flooding standard, sizable detention ponds would be needed. The construction of which would require removing significant volumes of soil from the Site. Based on initial environmental investigations, onsite soils would be considered *special waste* per Maine DEP Solid Waste Management Rules. Tipping fees for offsite disposal of *special waste* would substantially increase the cost of providing stormwater detention.
- The project will remove approximately 4 acres of surface runoff from the City's combined drainage system, which will reduce loading on local combined sewers, which in turn, will help to reduce the frequency, intensity and duration of combined sewer overflows.
- The site will drain to a large (48" diameter) public stormdrain that will drain directly to Back Cove and into the Atlantic Ocean.

Storm Event	PRE-Development Peak Runoff RATES cubic feet per second (CFS)
	Analysis Point A 30" Combined Sewer
2 Year Frequency Storm	9.19
10 Year Frequency Storm	15.82
25 Year Frequency Storm	21.16

Storm Event	POST-Development Peak Runoff RATES cubic feet per second (CFS)
	Analysis Point A' 48" Stormdrain
2 Year Frequency Storm	10.53
10 Year Frequency Storm	17.20
25 Year Frequency Storm	22.49

FocalPoint Sizing

Prepared by HP Inc.

HydroCAD® 10.00-12 s/n 05121 © 2014 HydroCAD Software Solutions LLC

Type III 24-hr 1.6inch Rainfall=1.60"

Printed 7/9/2019

Page 1

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond FP1: FocalPoint 110sf	Peak Elev=13.54' Storage=53 cf Inflow=0.13 cfs 409 cf Primary=0.05 cfs 409 cf Secondary=0.00 cfs 0 cf Outflow=0.05 cfs 409 cf
Pond FP10: FocalPoint 50sf	Peak Elev=10.42' Storage=35 cf Inflow=0.18 cfs 570 cf Primary=0.10 cfs 570 cf Secondary=0.00 cfs 0 cf Outflow=0.10 cfs 570 cf
Pond FP11: FocalPoint 60sf	Peak Elev=16.86' Storage=53 cf Inflow=0.21 cfs 685 cf Primary=0.10 cfs 685 cf Secondary=0.00 cfs 0 cf Outflow=0.10 cfs 685 cf
Pond FP12: FocalPoint 35sf	Peak Elev=13.45' Storage=9 cf Inflow=0.11 cfs 339 cf Primary=0.08 cfs 339 cf Secondary=0.00 cfs 0 cf Outflow=0.08 cfs 339 cf
Pond FP13: FocalPoint 120sf	Peak Elev=11.34' Storage=180 cf Inflow=0.44 cfs 1,388 cf Primary=0.17 cfs 1,388 cf Secondary=0.00 cfs 0 cf Outflow=0.17 cfs 1,388 cf
Pond FP14: FocalPoint 70sf	Peak Elev=10.90' Storage=133 cf Inflow=0.29 cfs 945 cf Primary=0.10 cfs 945 cf Secondary=0.00 cfs 0 cf Outflow=0.10 cfs 945 cf
Pond FP2: FocalPoint 60sf	Peak Elev=11.68' Storage=180 cf Inflow=0.44 cfs 1,362 cf Primary=0.16 cfs 1,362 cf Secondary=0.00 cfs 0 cf Outflow=0.16 cfs 1,362 cf
Pond FP4: FocalPoint 80sf	Peak Elev=12.12' Storage=45 cf Inflow=0.12 cfs 380 cf Primary=0.05 cfs 380 cf Secondary=0.00 cfs 0 cf Outflow=0.05 cfs 380 cf
Pond FP5: FocalPoint 20sf	Peak Elev=12.44' Storage=167 cf Inflow=0.47 cfs 1,460 cf Primary=0.19 cfs 1,460 cf Secondary=0.00 cfs 0 cf Outflow=0.19 cfs 1,460 cf
Pond FP7: FocalPoint 40sf	Peak Elev=11.04' Storage=17 cf Inflow=0.10 cfs 314 cf Primary=0.06 cfs 314 cf Secondary=0.00 cfs 0 cf Outflow=0.06 cfs 314 cf
Pond FP8: FocalPoint 70sf	Peak Elev=11.94' Storage=119 cf Inflow=0.32 cfs 1,021 cf Primary=0.12 cfs 1,021 cf Secondary=0.00 cfs 0 cf Outflow=0.12 cfs 1,021 cf
Pond FP9: FocalPoint 30sf	Peak Elev=12.43' Storage=74 cf Inflow=0.15 cfs 464 cf Primary=0.05 cfs 464 cf Secondary=0.00 cfs 0 cf Outflow=0.05 cfs 464 cf

FocalPoint Sizing

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Summary for Pond FP1: FocalPoint 110sf

Inflow Area = 4,123 sf, 90.73% Impervious, Inflow Depth = 1.19" for 1.6inch event
 Inflow = 0.13 cfs @ 12.09 hrs, Volume= 409 cf
 Outflow = 0.05 cfs @ 11.90 hrs, Volume= 409 cf, Atten= 64%, Lag= 0.0 min
 Primary = 0.05 cfs @ 11.90 hrs, Volume= 409 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 13.54' @ 12.35 hrs Surf.Area= 20 sf Storage= 53 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 4.9 min (801.1 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1	11.05'	9 cf	4.00'W x 5.00'L x 2.25'H FocalPoint 45 cf Overall x 20.0% Voids
#2	13.30'	233 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		242 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
13.30	180	0	0
14.00	200	133	133
14.50	200	100	233

Device	Routing	Invert	Outlet Devices
#1	Primary	11.05'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	13.80'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 11.90 hrs HW=11.16' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=11.05' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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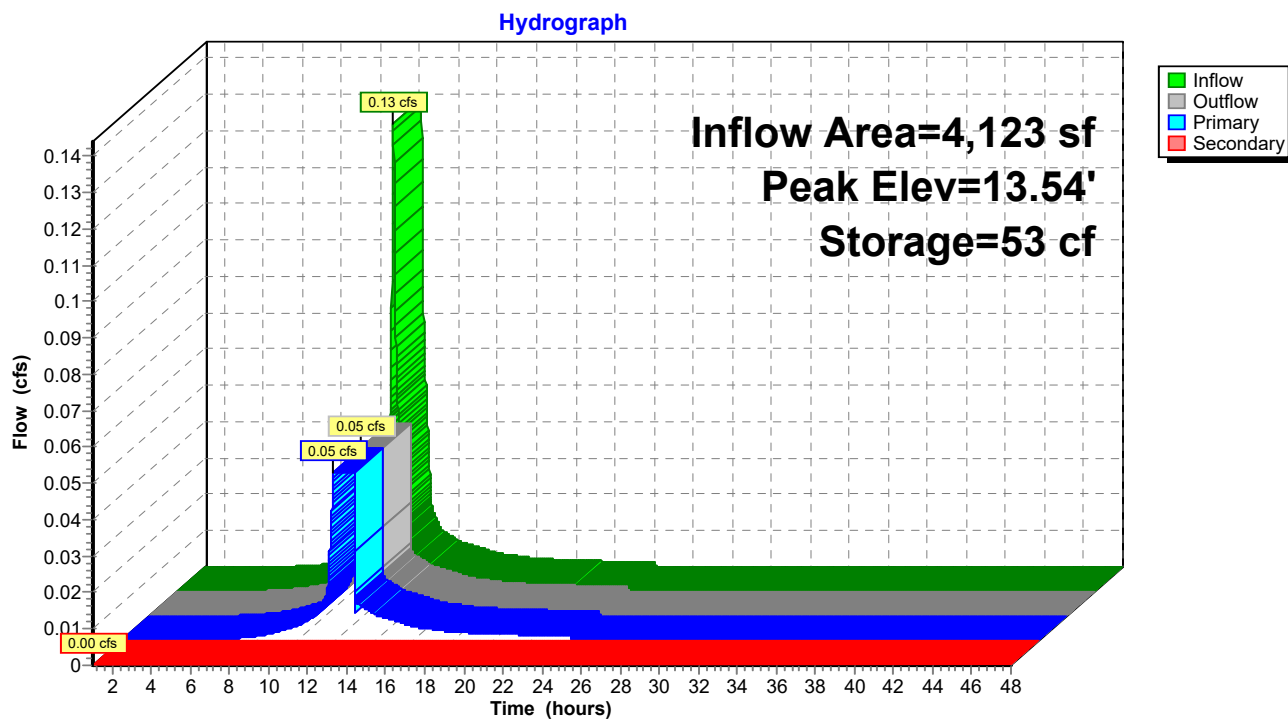
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Pond FP1: FocalPoint 110sf



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Summary for Pond FP10: FocalPoint 50sf

Inflow Area = 8,963 sf, 67.14% Impervious, Inflow Depth = 0.76" for 1.6inch event
 Inflow = 0.18 cfs @ 12.09 hrs, Volume= 570 cf
 Outflow = 0.10 cfs @ 12.02 hrs, Volume= 570 cf, Atten= 43%, Lag= 0.0 min
 Primary = 0.10 cfs @ 12.02 hrs, Volume= 570 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 10.42' @ 12.22 hrs Surf.Area= 45 sf Storage= 35 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 1.2 min (838.1 - 836.9)

Volume	Invert	Avail.Storage	Storage Description
#1	7.85'	20 cf	10.00'W x 4.50'L x 2.25'H FocalPoint 101 cf Overall x 20.0% Voids
#2	10.10'	45 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		65 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.10	45	0	0
10.60	45	23	23
11.10	45	23	45

Device	Routing	Invert	Outlet Devices
#1	Primary	7.85'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	10.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.02 hrs HW=8.03' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.10 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=7.85' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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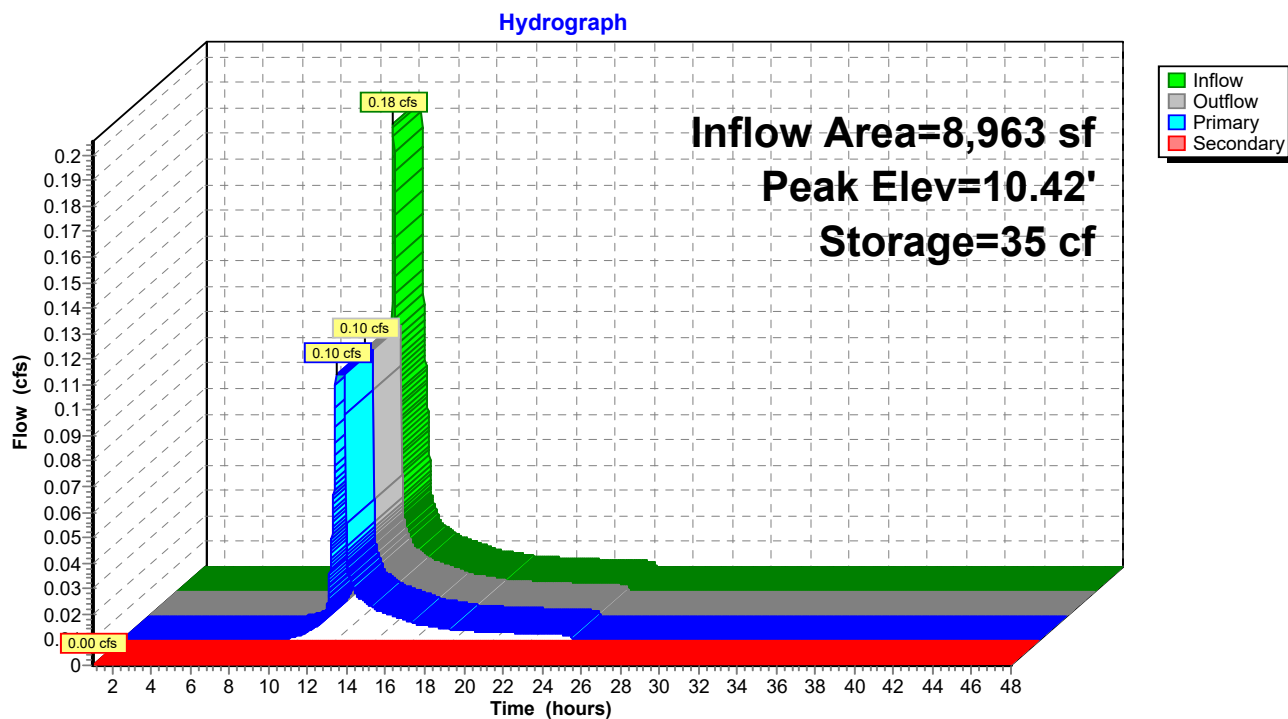
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Pond FP10: FocalPoint 50sf



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Summary for Pond FP11: FocalPoint 60sf

Inflow Area = 6,416 sf, 97.01% Impervious, Inflow Depth = 1.28" for 1.6inch event
 Inflow = 0.21 cfs @ 12.08 hrs, Volume= 685 cf
 Outflow = 0.10 cfs @ 11.99 hrs, Volume= 685 cf, Atten= 51%, Lag= 0.0 min
 Primary = 0.10 cfs @ 11.99 hrs, Volume= 685 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 16.86' @ 12.23 hrs Surf.Area= 45 sf Storage= 53 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 1.8 min (787.9 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	14.25'	20 cf	9.00'W x 5.00'L x 2.25'H FocalPoint 101 cf Overall x 20.0% Voids
#2	16.50'	90 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		110 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
16.50	90	0	0
17.00	90	45	45
17.50	90	45	90

Device	Routing	Invert	Outlet Devices
#1	Primary	14.25'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	17.00'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 11.99 hrs HW=14.41' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.10 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=14.25' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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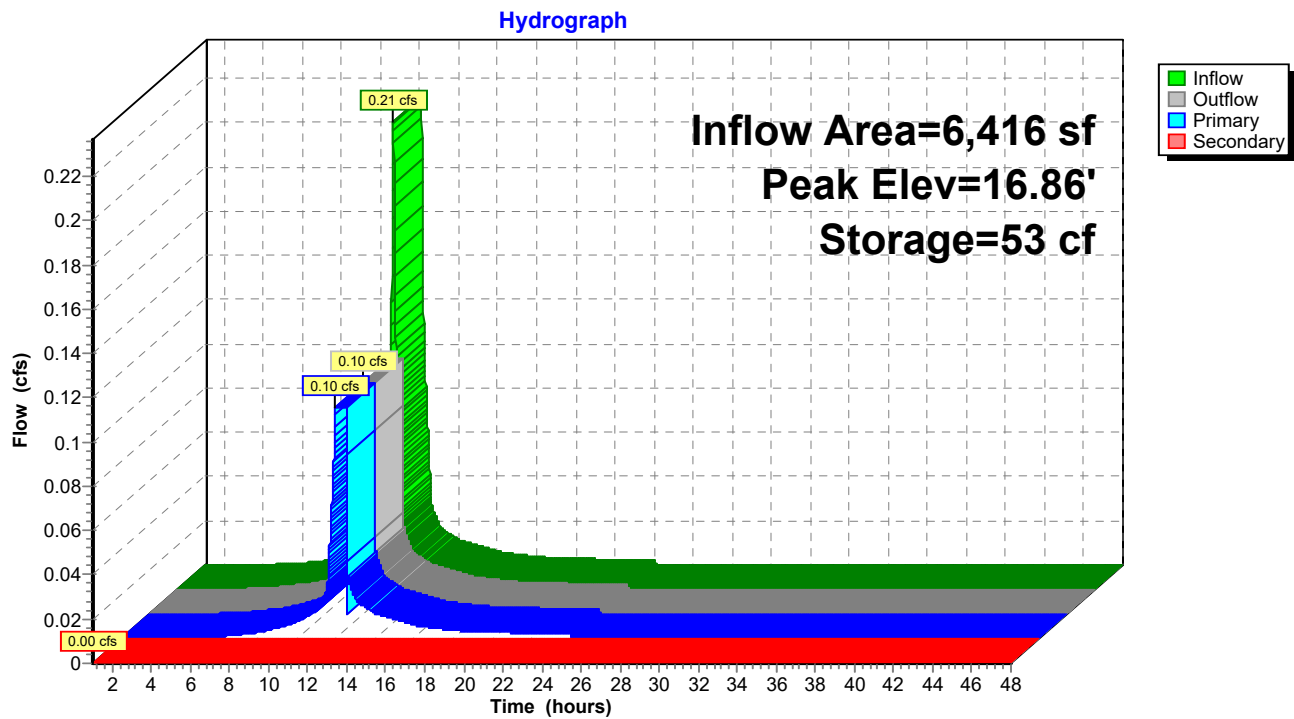
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Pond FP11: FocalPoint 60sf



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Summary for Pond FP12: FocalPoint 35sf

Inflow Area = 5,334 sf, 65.67% Impervious, Inflow Depth = 0.76" for 1.6inch event
 Inflow = 0.11 cfs @ 12.09 hrs, Volume= 339 cf
 Outflow = 0.08 cfs @ 12.05 hrs, Volume= 339 cf, Atten= 26%, Lag= 0.0 min
 Primary = 0.08 cfs @ 12.05 hrs, Volume= 339 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 13.45' @ 12.16 hrs Surf.Area= 35 sf Storage= 9 cf

Plug-Flow detention time= 0.4 min calculated for 339 cf (100% of inflow)

Center-of-Mass det. time= 0.4 min (837.2 - 836.9)

Volume	Invert	Avail.Storage	Storage Description
#1	12.15'	16 cf	10.00'W x 3.50'L x 2.25'H FocalPoint 79 cf Overall x 20.0% Voids
#2	14.40'	38 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		54 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
14.40	38	0	0
14.90	38	19	19
15.40	38	19	38

Device	Routing	Invert	Outlet Devices
#1	Primary	12.15'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	14.90'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.08 cfs @ 12.05 hrs HW=12.33' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.08 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=12.15' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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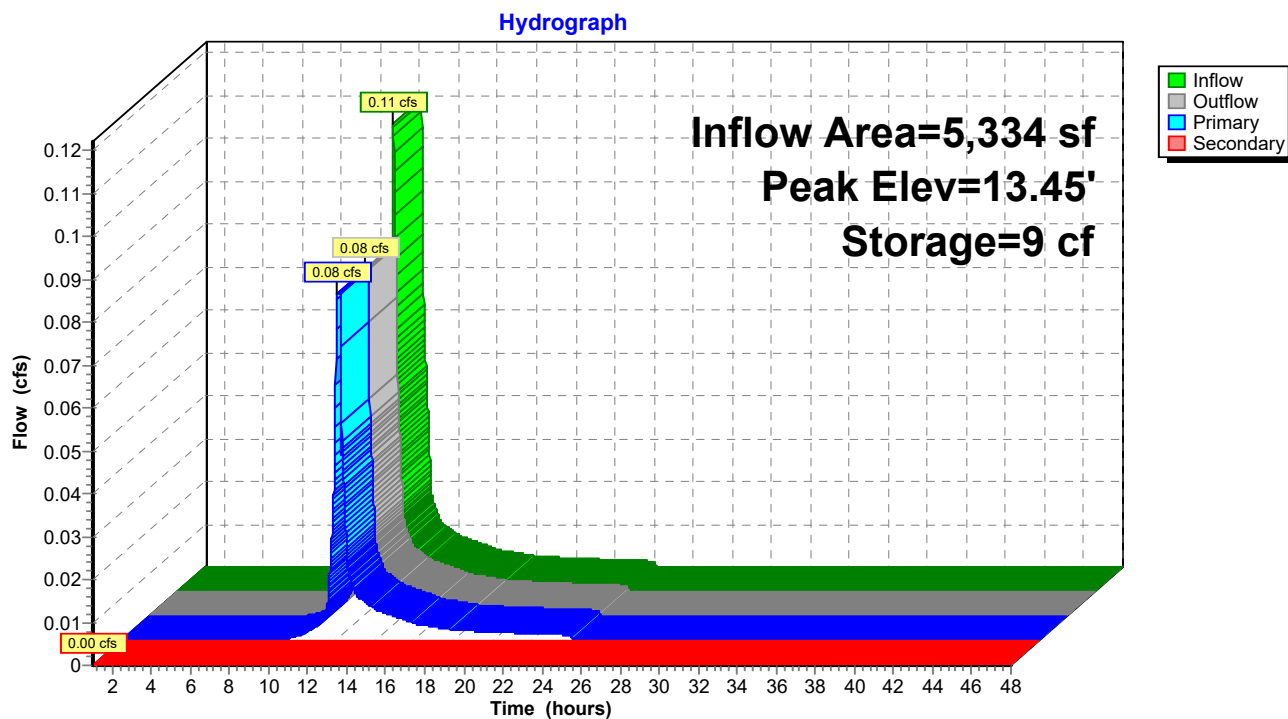
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Pond FP12: FocalPoint 35sf



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Summary for Pond FP13: FocalPoint 120sf

Inflow Area = 23,553 sf, 64.32% Impervious, Inflow Depth = 0.71" for 1.6inch event
 Inflow = 0.44 cfs @ 12.09 hrs, Volume= 1,388 cf
 Outflow = 0.17 cfs @ 11.97 hrs, Volume= 1,388 cf, Atten= 62%, Lag= 0.0 min
 Primary = 0.17 cfs @ 11.97 hrs, Volume= 1,388 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 11.34' @ 12.38 hrs Surf.Area= 72 sf Storage= 180 cf

Plug-Flow detention time= 4.9 min calculated for 1,387 cf (100% of inflow)

Center-of-Mass det. time= 4.9 min (847.0 - 842.2)

Volume	Invert	Avail.Storage	Storage Description
#1	8.65'	32 cf	9.00'W x 8.00'L x 2.25'H FocalPoint 162 cf Overall x 20.0% Voids
#2	10.90'	404 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		436 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.90	275	0	0
11.40	420	174	174
11.90	500	230	404

Device	Routing	Invert	Outlet Devices
#1	Primary	8.65'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	11.40'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.17 cfs @ 11.97 hrs HW=8.79' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.17 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=8.65' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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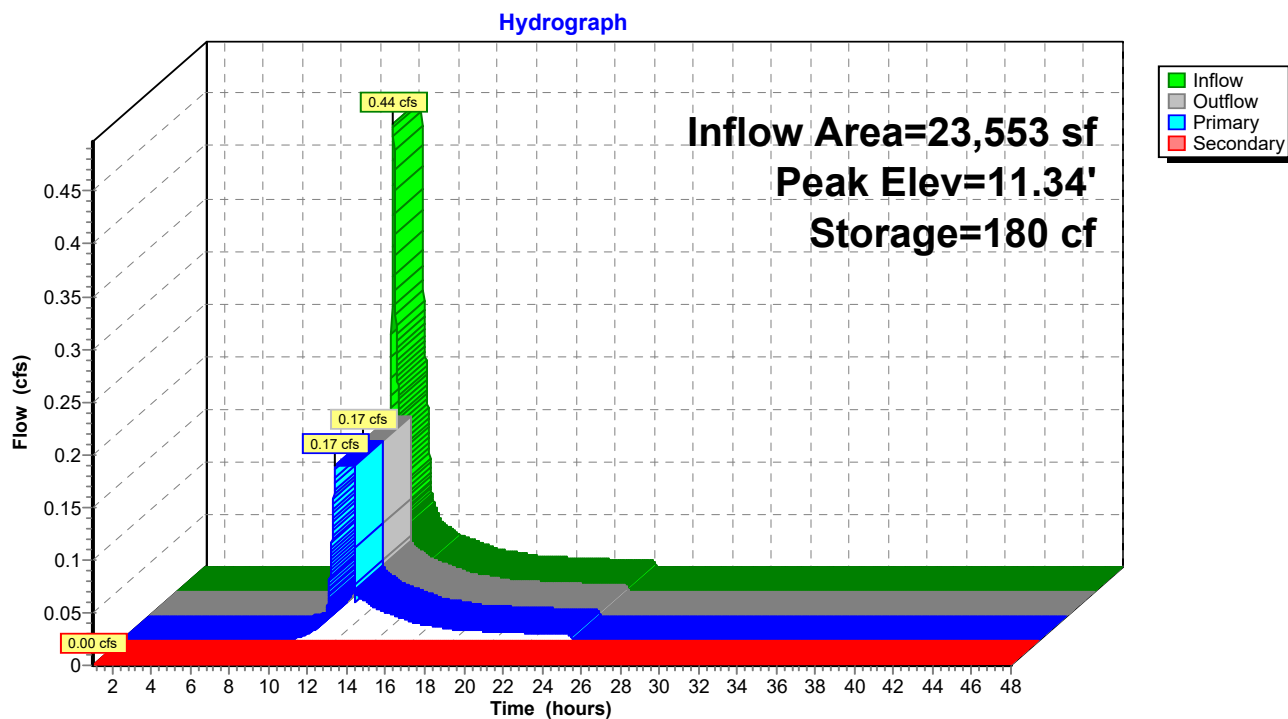
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Pond FP13: FocalPoint 120sf



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Summary for Pond FP14: FocalPoint 70sf

Inflow Area = 20,271 sf, 51.98% Impervious, Inflow Depth = 0.56" for 1.6inch event
 Inflow = 0.29 cfs @ 12.09 hrs, Volume= 945 cf
 Outflow = 0.10 cfs @ 11.98 hrs, Volume= 945 cf, Atten= 65%, Lag= 0.0 min
 Primary = 0.10 cfs @ 11.98 hrs, Volume= 945 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 10.90' @ 12.43 hrs Surf.Area= 45 sf Storage= 133 cf

Plug-Flow detention time= 5.9 min calculated for 945 cf (100% of inflow)

Center-of-Mass det. time= 5.9 min (863.3 - 857.4)

Volume	Invert	Avail.Storage	Storage Description
#1	8.25'	20 cf	9.00'W x 5.00'L x 2.25'H FocalPoint 101 cf Overall x 20.0% Voids
#2	10.50'	306 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		326 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
10.50	250	0	0
11.00	324	144	144
11.50	324	162	306

Device	Routing	Invert	Outlet Devices
#1	Primary	8.25'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	11.00'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 11.98 hrs HW=8.43' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.10 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=8.25' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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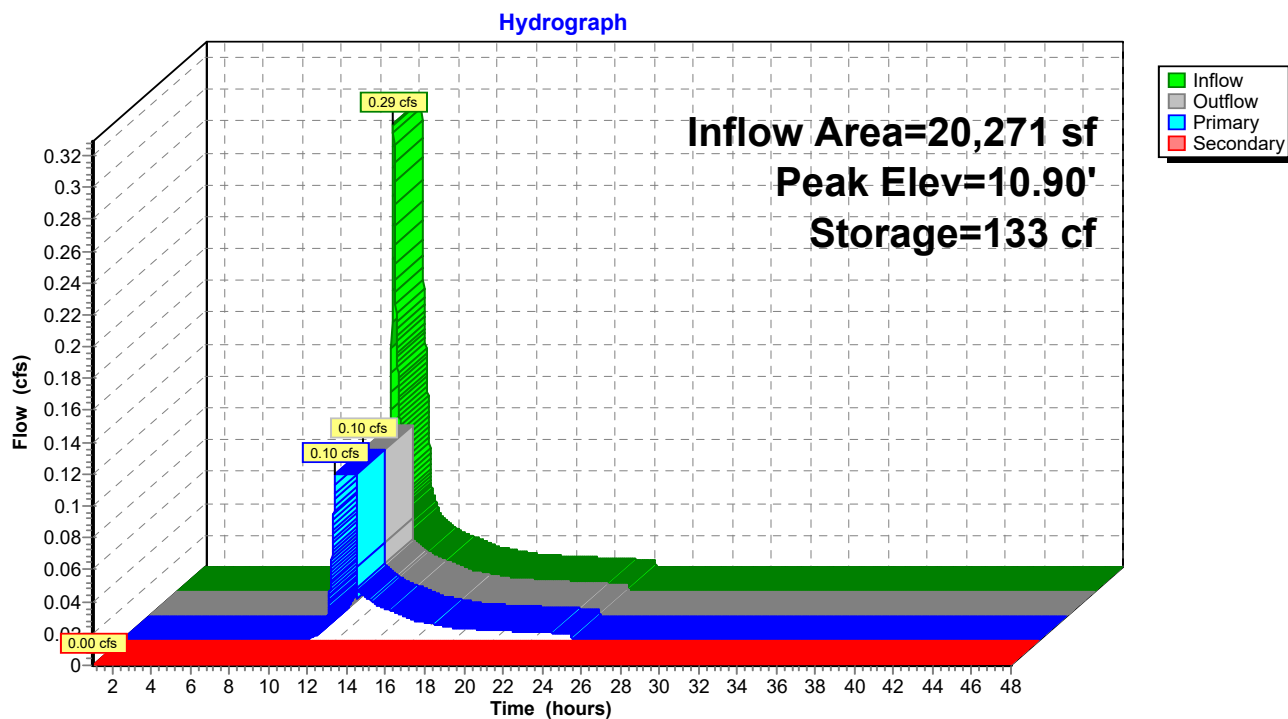
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Pond FP14: FocalPoint 70sf



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Summary for Pond FP2: FocalPoint 60sf

Inflow Area = 19,882 sf, 70.87% Impervious, Inflow Depth = 0.82" for 1.6inch event
 Inflow = 0.44 cfs @ 12.09 hrs, Volume= 1,362 cf
 Outflow = 0.16 cfs @ 11.96 hrs, Volume= 1,362 cf, Atten= 63%, Lag= 0.0 min
 Primary = 0.16 cfs @ 11.96 hrs, Volume= 1,362 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 11.68' @ 12.38 hrs Surf.Area= 70 sf Storage= 180 cf

Plug-Flow detention time= 5.0 min calculated for 1,362 cf (100% of inflow)

Center-of-Mass det. time= 5.0 min (836.3 - 831.3)

Volume	Invert	Avail.Storage	Storage Description
#1	9.00'	32 cf	10.00'W x 7.00'L x 2.25'H FocalPoint 158 cf Overall x 20.0% Voids
#2	11.25'	375 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		407 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
11.25	300	0	0
11.75	400	175	175
12.25	400	200	375

Device	Routing	Invert	Outlet Devices
#1	Primary	9.00'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	11.75'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.16 cfs @ 11.96 hrs HW=9.15' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.16 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=9.00' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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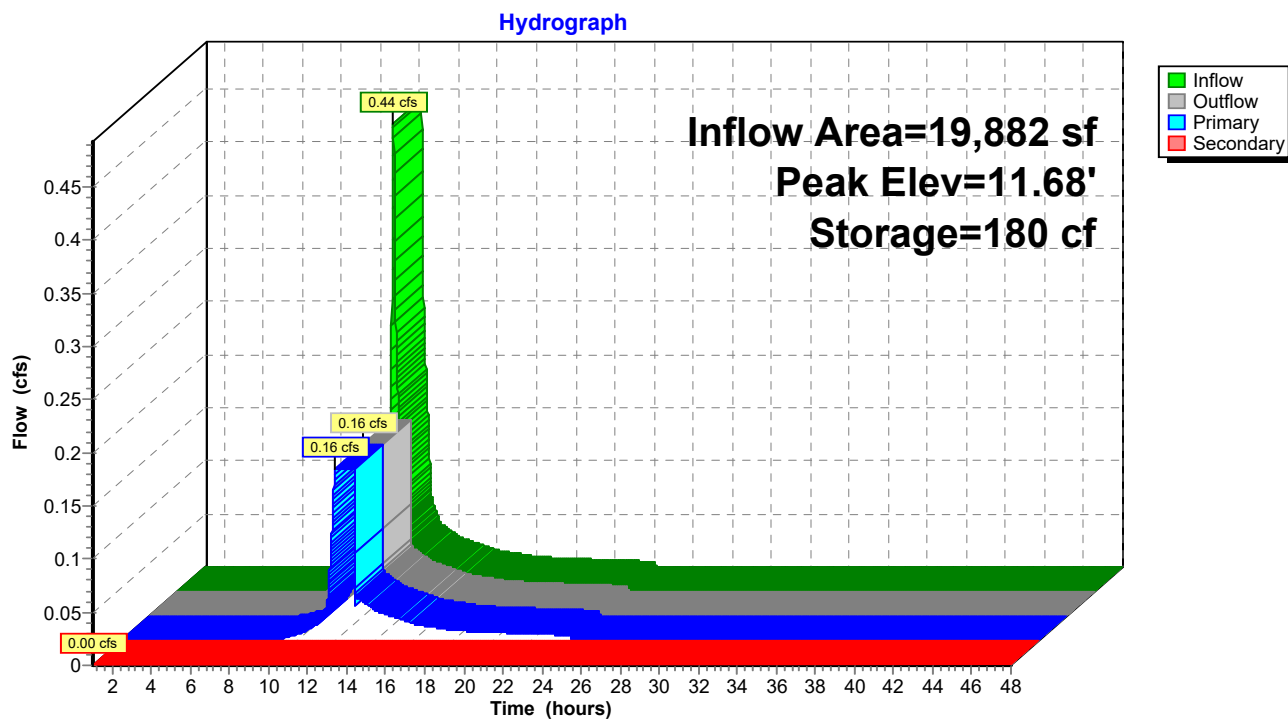
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Pond FP2: FocalPoint 60sf



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Summary for Pond FP4: FocalPoint 80sf

Inflow Area = 3,833 sf, 90.53% Impervious, Inflow Depth = 1.19" for 1.6inch event
 Inflow = 0.12 cfs @ 12.09 hrs, Volume= 380 cf
 Outflow = 0.05 cfs @ 11.94 hrs, Volume= 380 cf, Atten= 61%, Lag= 0.0 min
 Primary = 0.05 cfs @ 11.94 hrs, Volume= 380 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 12.12' @ 12.32 hrs Surf.Area= 20 sf Storage= 45 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 4.0 min (800.2 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1	9.75'	9 cf	5.00'W x 4.00'L x 2.25'H FocalPoint 45 cf Overall x 20.0% Voids
#2	12.00'	304 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		313 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
12.00	304	0	0
12.50	304	152	152
13.00	304	152	304

Device	Routing	Invert	Outlet Devices
#1	Primary	9.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	12.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 11.94 hrs HW=9.88' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=9.75' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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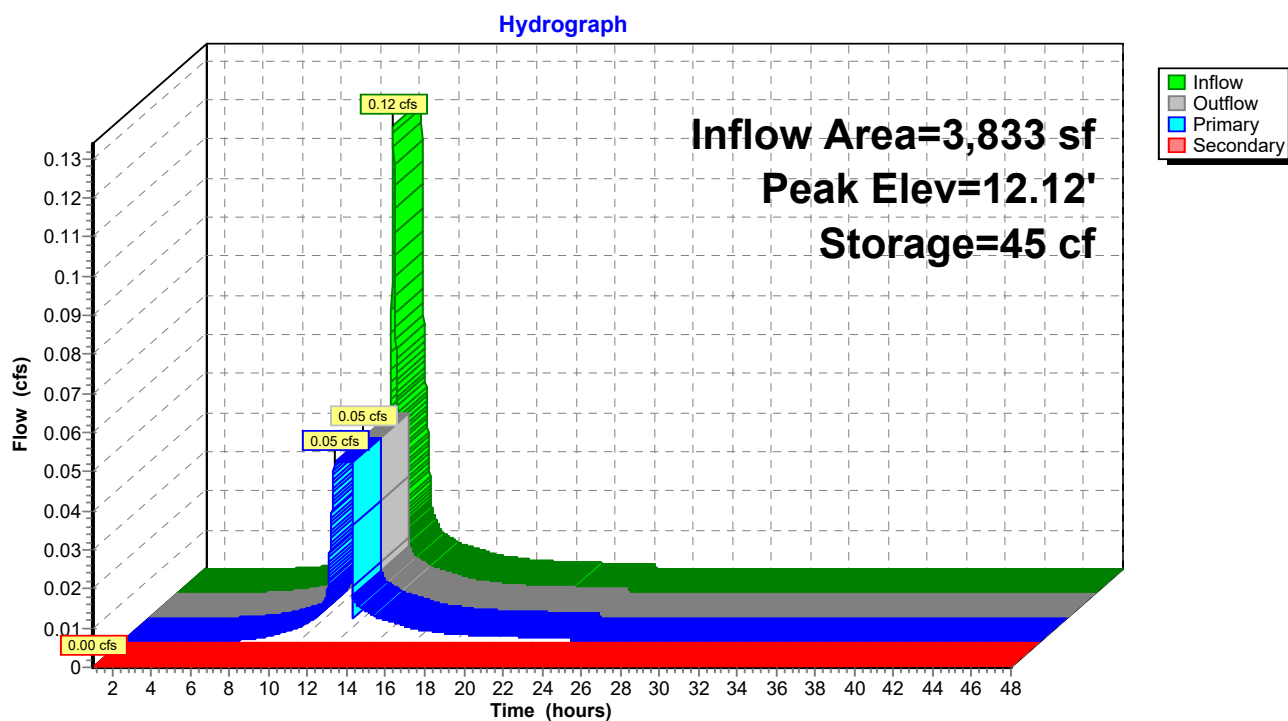
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Pond FP4: FocalPoint 80sf



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Summary for Pond FP5: FocalPoint 20sf

Inflow Area = 15,846 sf, 88.61% Impervious, Inflow Depth = 1.11" for 1.6inch event
 Inflow = 0.47 cfs @ 12.09 hrs, Volume= 1,460 cf
 Outflow = 0.19 cfs @ 11.96 hrs, Volume= 1,460 cf, Atten= 60%, Lag= 0.0 min
 Primary = 0.19 cfs @ 11.96 hrs, Volume= 1,460 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 12.44' @ 12.32 hrs Surf.Area= 80 sf Storage= 167 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 3.7 min (808.6 - 804.8)

Volume	Invert	Avail.Storage	Storage Description
#1	9.75'	36 cf	10.00'W x 8.00'L x 2.25'H FocalPoint 180 cf Overall x 20.0% Voids
#2	12.00'	340 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		376 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
12.00	260	0	0
12.50	350	153	153
13.00	400	188	340

Device	Routing	Invert	Outlet Devices
#1	Primary	9.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	12.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.19 cfs @ 11.96 hrs HW=9.91' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.19 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=9.75' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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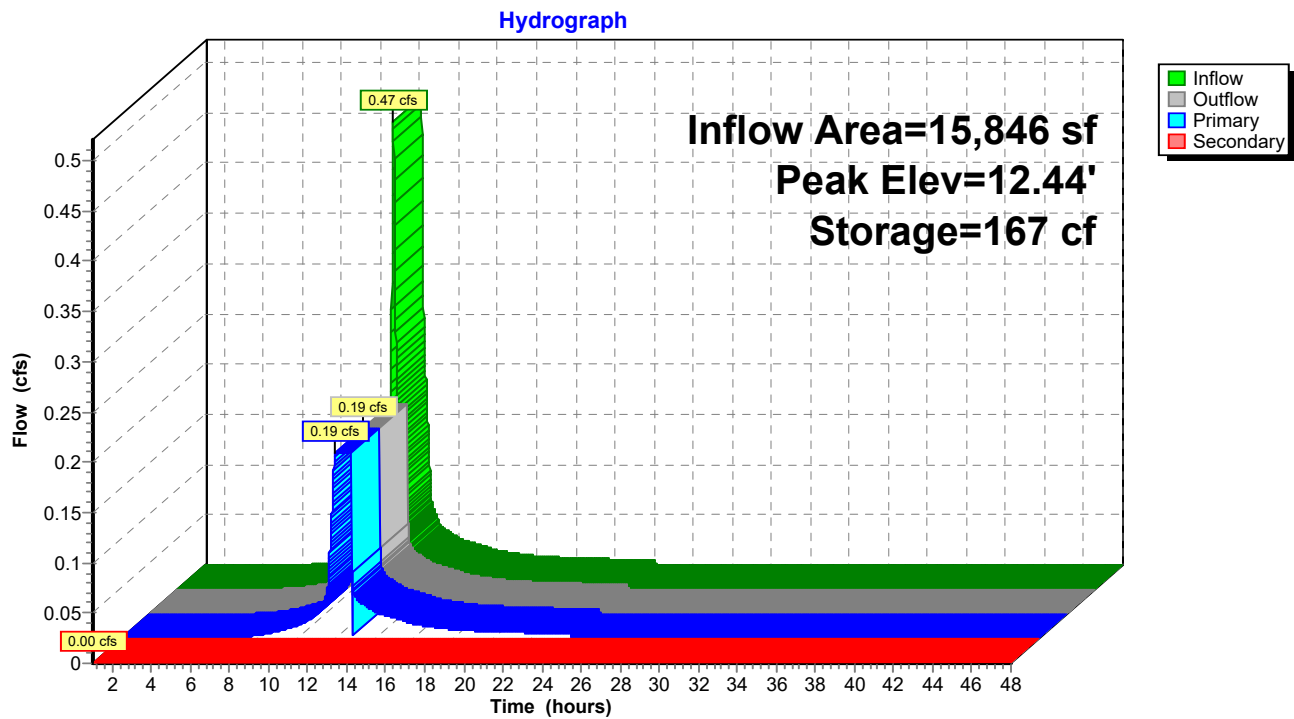
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Type III 24-hr 1.6inch Rainfall=1.60"

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Pond FP5: FocalPoint 20sf



FocalPoint Sizing

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Type III 24-hr 1.6inch Rainfall=1.60"

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Summary for Pond FP7: FocalPoint 40sf

Inflow Area = 6,737 sf, 48.12% Impervious, Inflow Depth = 0.56" for 1.6inch event
 Inflow = 0.10 cfs @ 12.09 hrs, Volume= 314 cf
 Outflow = 0.06 cfs @ 12.03 hrs, Volume= 314 cf, Atten= 41%, Lag= 0.0 min
 Primary = 0.06 cfs @ 12.03 hrs, Volume= 314 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 11.04' @ 12.22 hrs Surf.Area= 25 sf Storage= 17 cf

Plug-Flow detention time= 1.1 min calculated for 314 cf (100% of inflow)

Center-of-Mass det. time= 1.1 min (858.5 - 857.4)

Volume	Invert	Avail.Storage	Storage Description
#1	8.75'	11 cf	5.00'W x 5.00'L x 2.25'H FocalPoint 56 cf Overall x 20.0% Voids
#2	11.00'	226 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		238 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
11.00	130	0	0
11.50	250	95	95
12.00	275	131	226

Device	Routing	Invert	Outlet Devices
#1	Primary	8.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	11.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.06 cfs @ 12.03 hrs HW=8.93' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.06 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=8.75' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

Prepared by HP Inc.

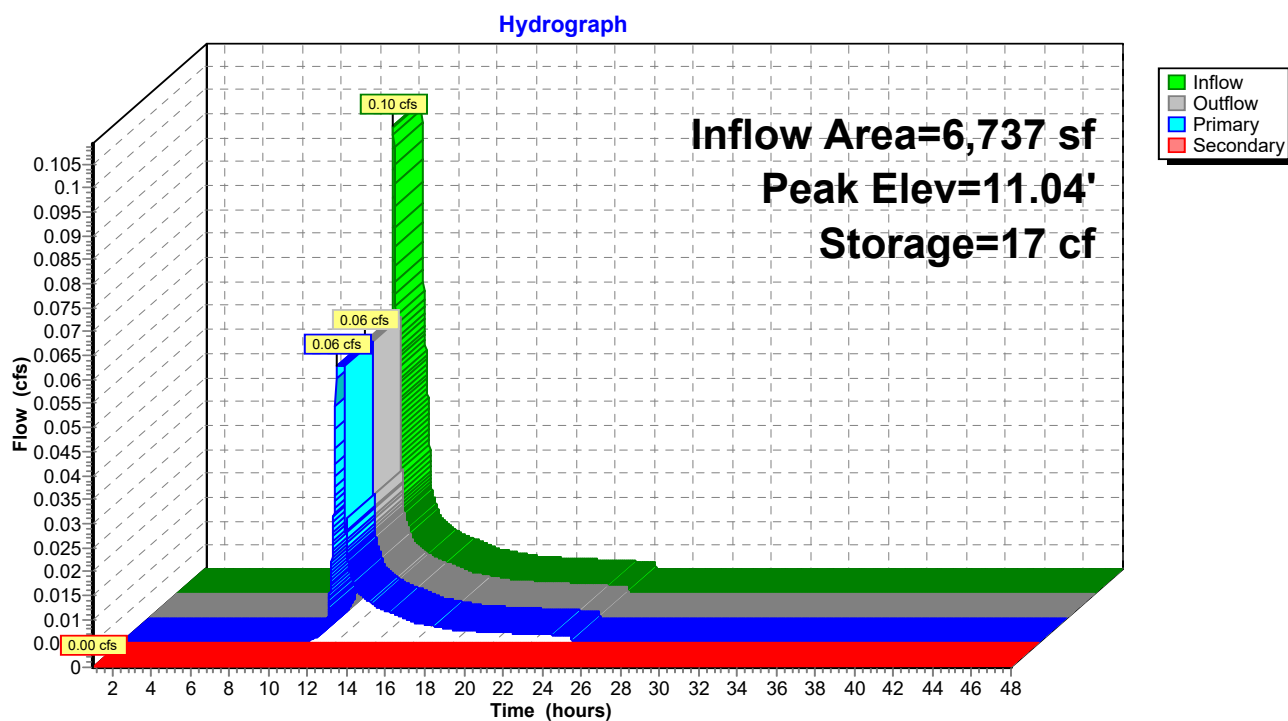
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Type III 24-hr 1.6inch Rainfall=1.60"

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Pond FP7: FocalPoint 40sf



FocalPoint Sizing

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Type III 24-hr 1.6inch Rainfall=1.60"

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Summary for Pond FP8: FocalPoint 70sf

Inflow Area = 10,296 sf, 91.11% Impervious, Inflow Depth = 1.19" for 1.6inch event
 Inflow = 0.32 cfs @ 12.09 hrs, Volume= 1,021 cf
 Outflow = 0.12 cfs @ 11.95 hrs, Volume= 1,021 cf, Atten= 61%, Lag= 0.0 min
 Primary = 0.12 cfs @ 11.95 hrs, Volume= 1,021 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 11.94' @ 12.32 hrs Surf.Area= 54 sf Storage= 119 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 3.9 min (800.1 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1	9.25'	24 cf	18.00'W x 3.00'L x 2.25'H FocalPoint 122 cf Overall x 20.0% Voids
#2	11.50'	263 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		287 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
11.50	150	0	0
12.00	300	113	113
12.50	300	150	263

Device	Routing	Invert	Outlet Devices
#1	Primary	9.25'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	12.00'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 11.95 hrs HW=9.41' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.12 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=9.25' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

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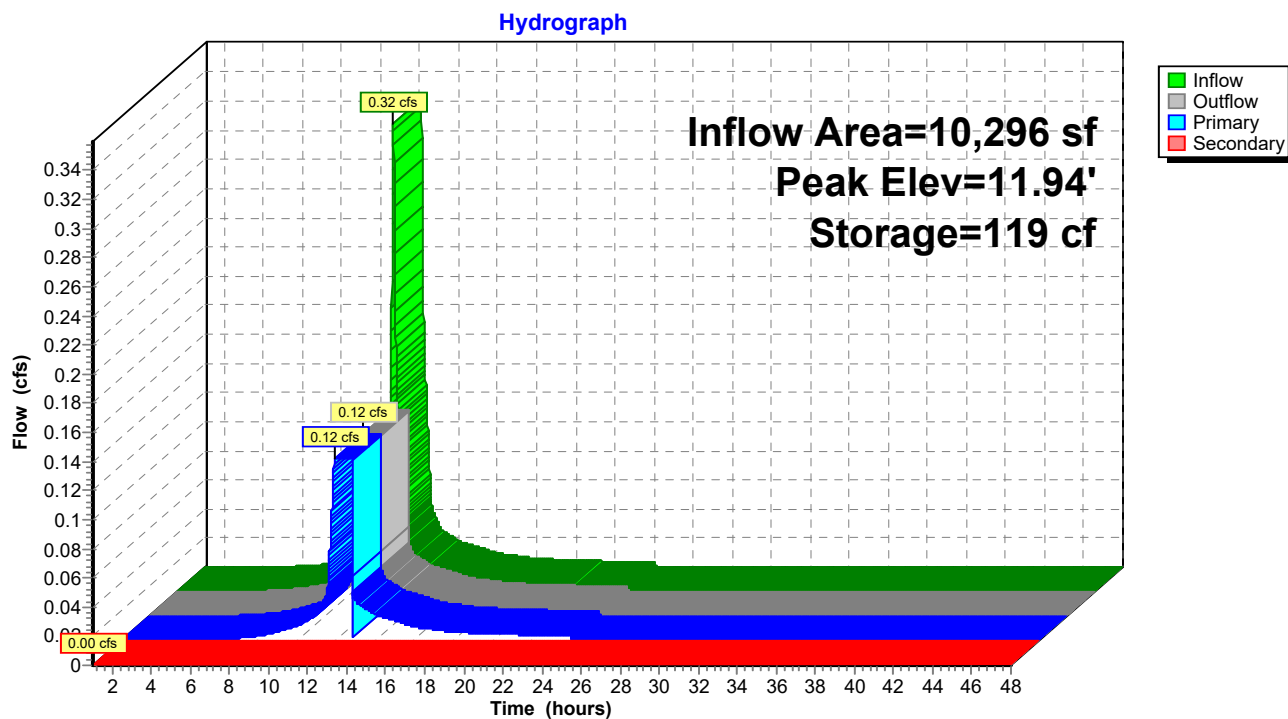
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Type III 24-hr 1.6inch Rainfall=1.60"

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Pond FP8: FocalPoint 70sf



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Type III 24-hr 1.6inch Rainfall=1.60"

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Summary for Pond FP9: FocalPoint 30sf

Inflow Area = 5,037 sf, 89.58% Impervious, Inflow Depth = 1.11" for 1.6inch event
 Inflow = 0.15 cfs @ 12.09 hrs, Volume= 464 cf
 Outflow = 0.05 cfs @ 11.88 hrs, Volume= 464 cf, Atten= 69%, Lag= 0.0 min
 Primary = 0.05 cfs @ 11.88 hrs, Volume= 464 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 12.43' @ 12.41 hrs Surf.Area= 20 sf Storage= 74 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 7.2 min (812.1 - 804.8)

Volume	Invert	Avail.Storage	Storage Description
#1	9.75'	9 cf	5.00'W x 4.00'L x 2.25'H FocalPoint 45 cf Overall x 20.0% Voids
#2	12.00'	150 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		159 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
12.00	150	0	0
12.50	150	75	75
13.00	150	75	150

Device	Routing	Invert	Outlet Devices
#1	Primary	9.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#2	Secondary	12.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 11.88 hrs HW=9.91' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=9.75' (Free Discharge)↑**2=Orifice/Grate** (Controls 0.00 cfs)

FocalPoint Sizing

Prepared by HP Inc.

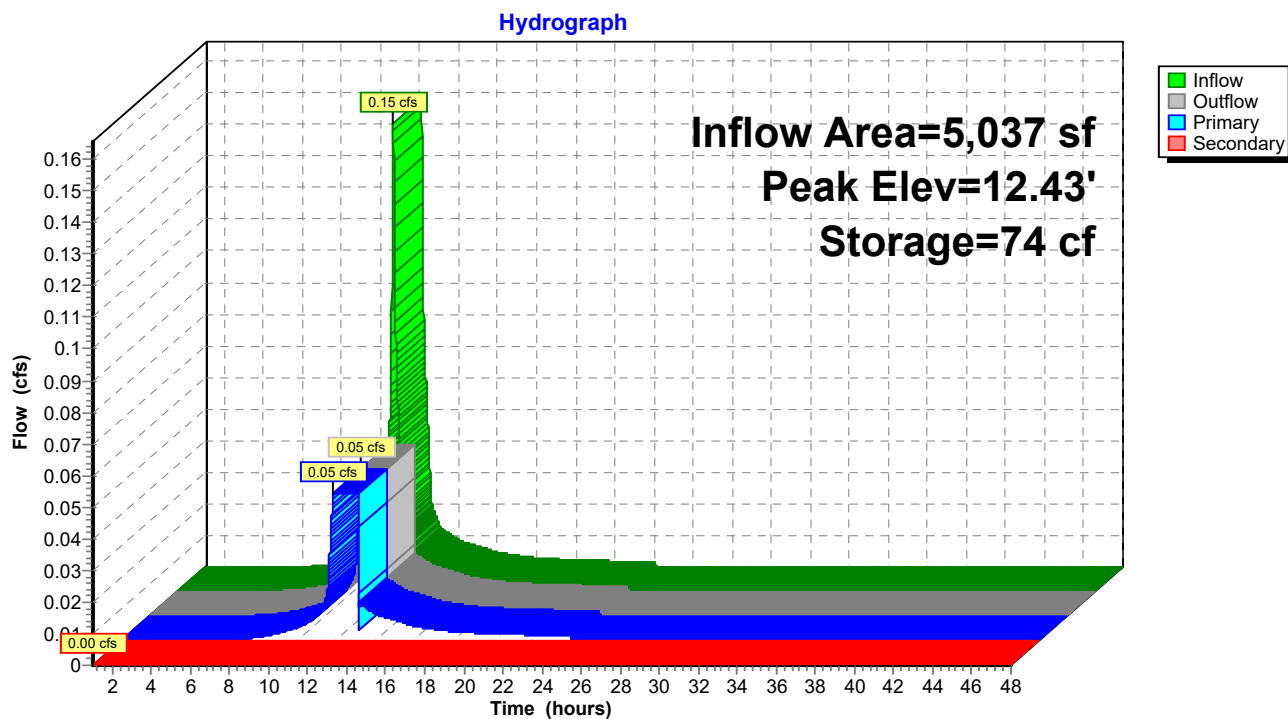
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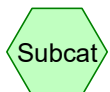
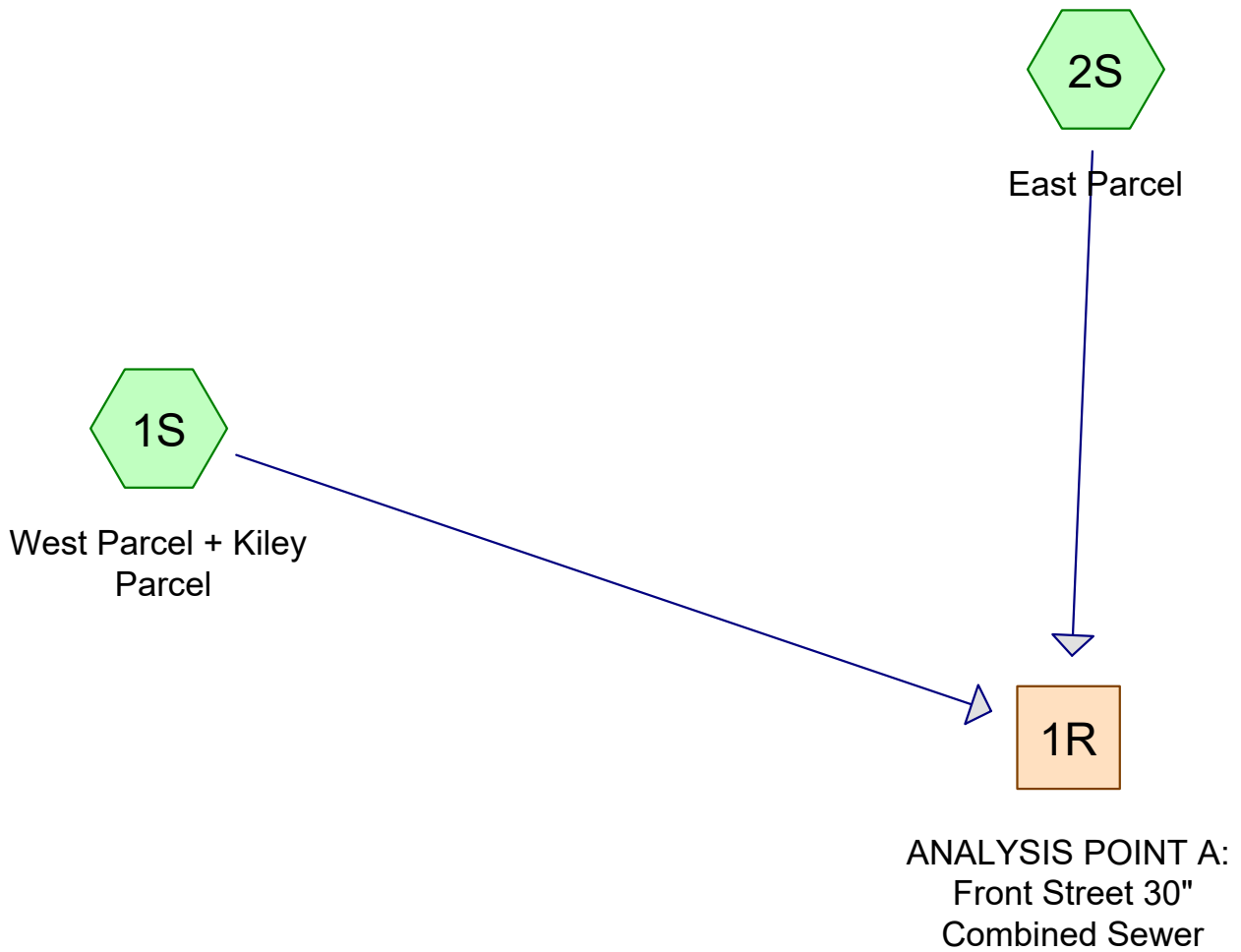
Type III 24-hr 1.6inch Rainfall=1.60"

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Pond FP9: FocalPoint 30sf

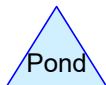




Subcat



Reach



Pond



Link

Routing Diagram for Front Street Pre Development

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Front Street Pre Development

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.644	80	>75% Grass cover, Good, HSG D (1S, 2S)
1.637	98	Paved parking, HSG D (1S, 2S)

Front Street Pre Development

Type III 24-hr 2-Year Rainfall=3.10"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: West Parcel + Kiley

Runoff Area=86,254 sf 38.44% Impervious Runoff Depth>1.71"

Tc=6.0 min CN=87 Runoff=4.24 cfs 0.282 af

Subcatchment2S: East Parcel

Runoff Area=100,252 sf 38.07% Impervious Runoff Depth>1.71"

Tc=6.0 min CN=87 Runoff=4.93 cfs 0.327 af

Reach 1R: ANALYSISPOINT A: Front Street 30" Combined Sewer

Inflow=9.17 cfs 0.609 af

Outflow=9.17 cfs 0.609 af

Front Street Pre Development

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Type III 24-hr 2-Year Rainfall=3.10"

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Summary for Subcatchment 1S: West Parcel + Kiley Parcel

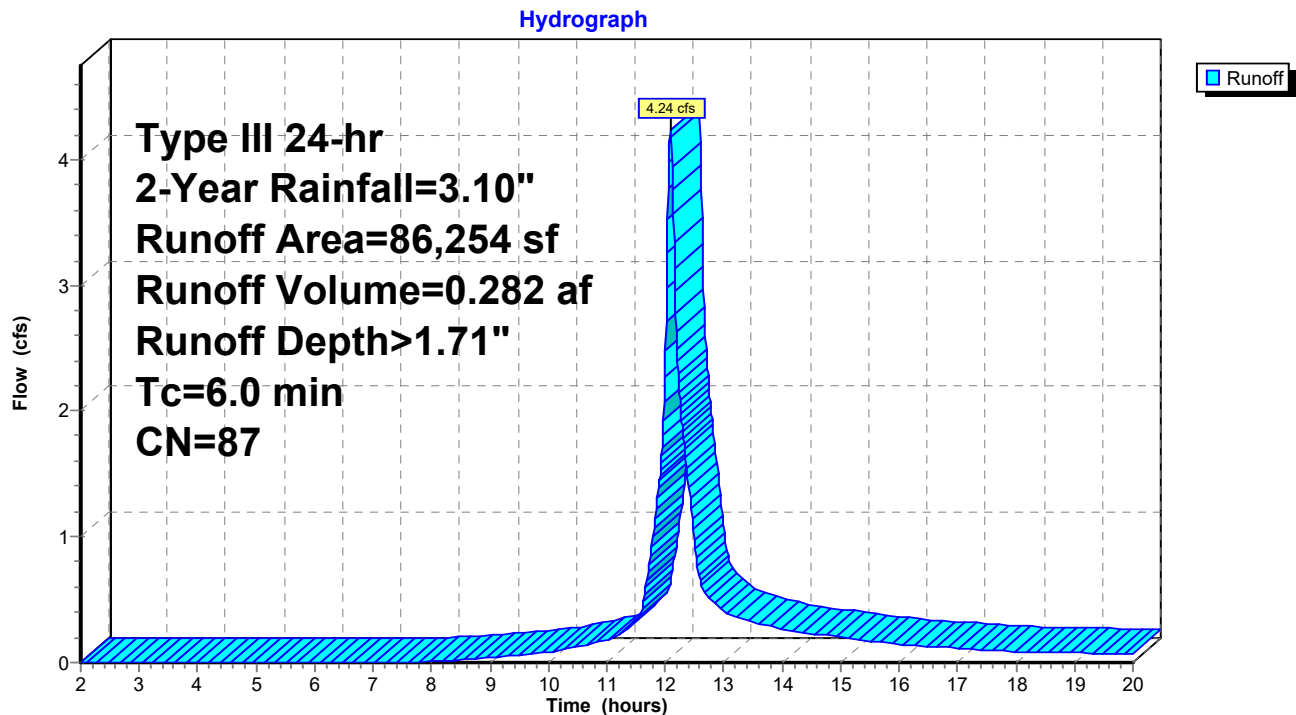
Runoff = 4.24 cfs @ 12.09 hrs, Volume= 0.282 af, Depth> 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.10"

Area (sf)	CN	Description
30,368	98	Paved parking, HSG D
40,894	80	>75% Grass cover, Good, HSG D
2,791	98	Paved parking, HSG D
12,201	80	>75% Grass cover, Good, HSG D
86,254	87	Weighted Average
53,095		61.56% Pervious Area
33,159		38.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 1S: West Parcel + Kiley Parcel



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Type III 24-hr 2-Year Rainfall=3.10"

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Summary for Subcatchment 2S: East Parcel

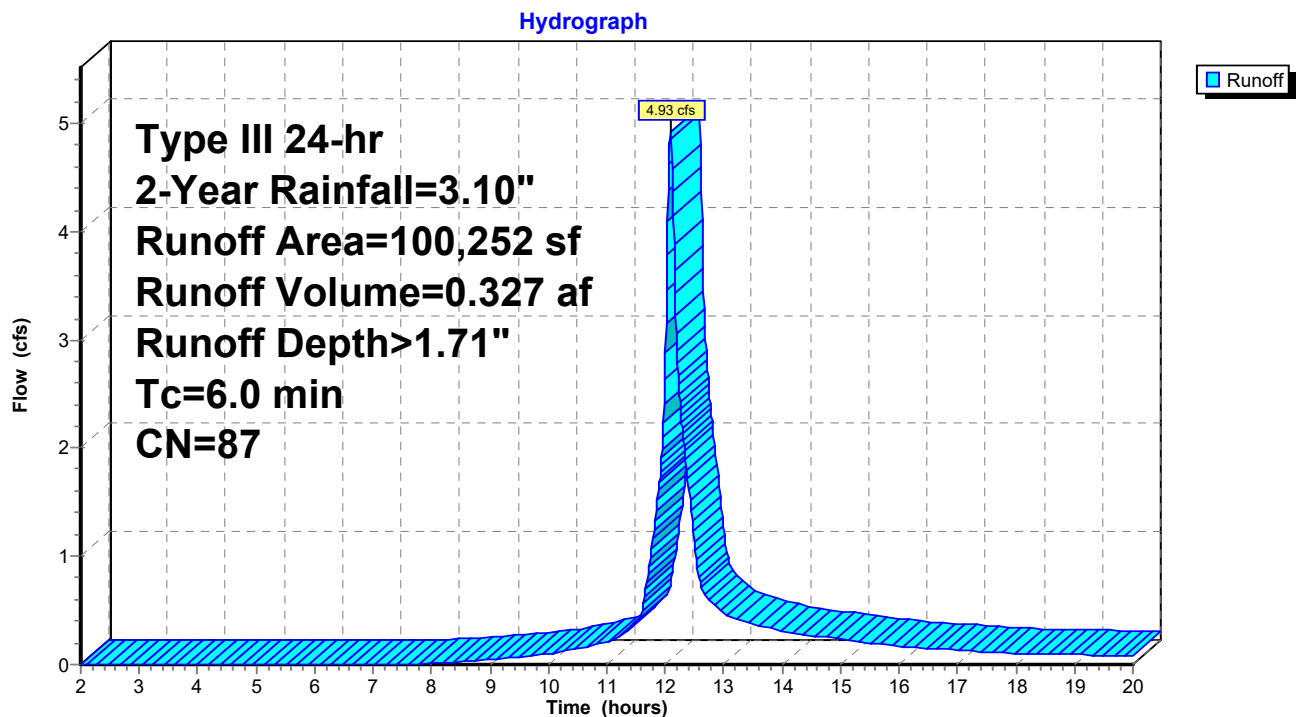
Runoff = 4.93 cfs @ 12.09 hrs, Volume= 0.327 af, Depth> 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.10"

Area (sf)	CN	Description
38,164	98	Paved parking, HSG D
62,088	80	>75% Grass cover, Good, HSG D
100,252	87	Weighted Average
62,088		61.93% Pervious Area
38,164		38.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 2S: East Parcel



Front Street Pre Development

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Type III 24-hr 2-Year Rainfall=3.10"

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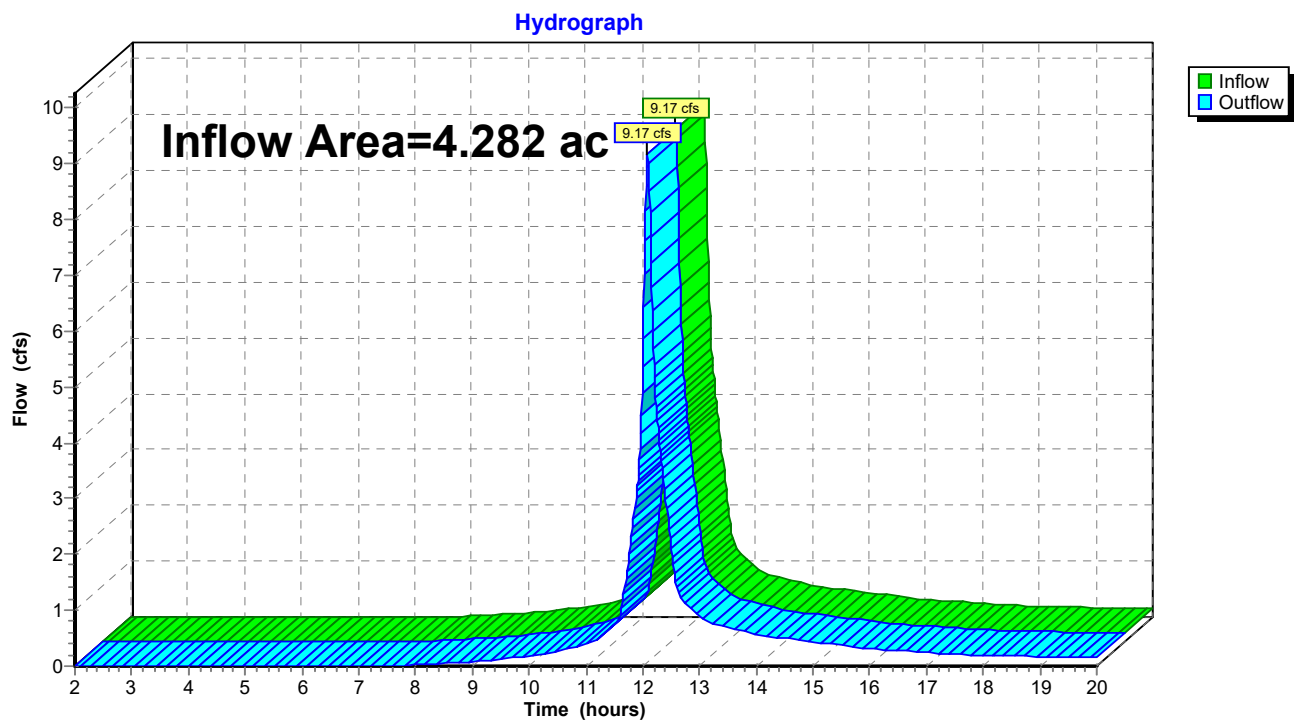
Summary for Reach 1R: ANALYSIS POINT A: Front Street 30" Combined Sewer

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.282 ac, 38.24% Impervious, Inflow Depth > 1.71" for 2-Year event
Inflow = 9.17 cfs @ 12.09 hrs, Volume= 0.609 af
Outflow = 9.17 cfs @ 12.09 hrs, Volume= 0.609 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Reach 1R: ANALYSIS POINT A: Front Street 30" Combined Sewer



Front Street Pre Development

Type III 24-hr 10-Year Rainfall=4.60"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: West Parcel + Kiley

Runoff Area=86,254 sf 38.44% Impervious Runoff Depth>3.00"

Tc=6.0 min CN=87 Runoff=7.31 cfs 0.496 af

Subcatchment2S: East Parcel

Runoff Area=100,252 sf 38.07% Impervious Runoff Depth>3.00"

Tc=6.0 min CN=87 Runoff=8.49 cfs 0.576 af

Reach 1R: ANALYSISPOINT A: Front Street 30" Combined Sewer

Inflow=15.80 cfs 1.071 af

Outflow=15.80 cfs 1.071 af

Front Street Pre Development

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Type III 24-hr 10-Year Rainfall=4.60"

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Summary for Subcatchment 1S: West Parcel + Kiley Parcel

Runoff = 7.31 cfs @ 12.09 hrs, Volume= 0.496 af, Depth> 3.00"

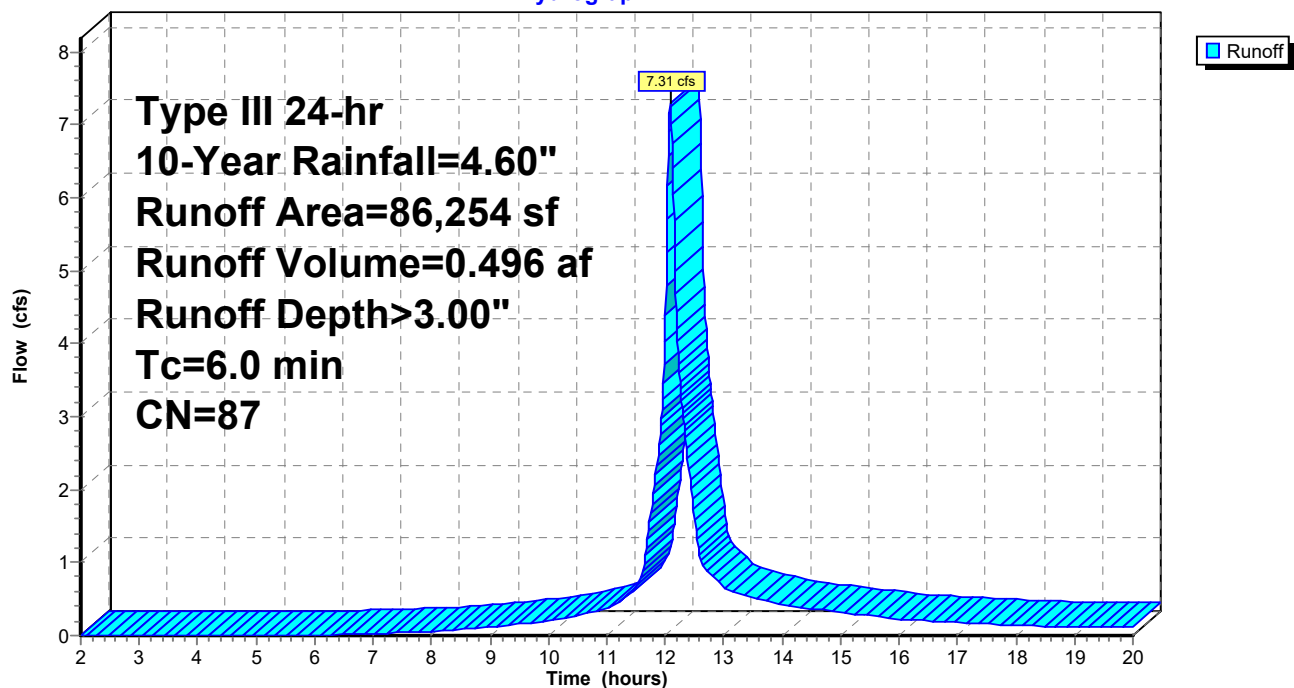
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.60"

Area (sf)	CN	Description
30,368	98	Paved parking, HSG D
40,894	80	>75% Grass cover, Good, HSG D
2,791	98	Paved parking, HSG D
12,201	80	>75% Grass cover, Good, HSG D
86,254	87	Weighted Average
53,095		61.56% Pervious Area
33,159		38.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 1S: West Parcel + Kiley Parcel

Hydrograph



Front Street Pre Development

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Type III 24-hr 10-Year Rainfall=4.60"

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Summary for Subcatchment 2S: East Parcel

Runoff = 8.49 cfs @ 12.09 hrs, Volume= 0.576 af, Depth> 3.00"

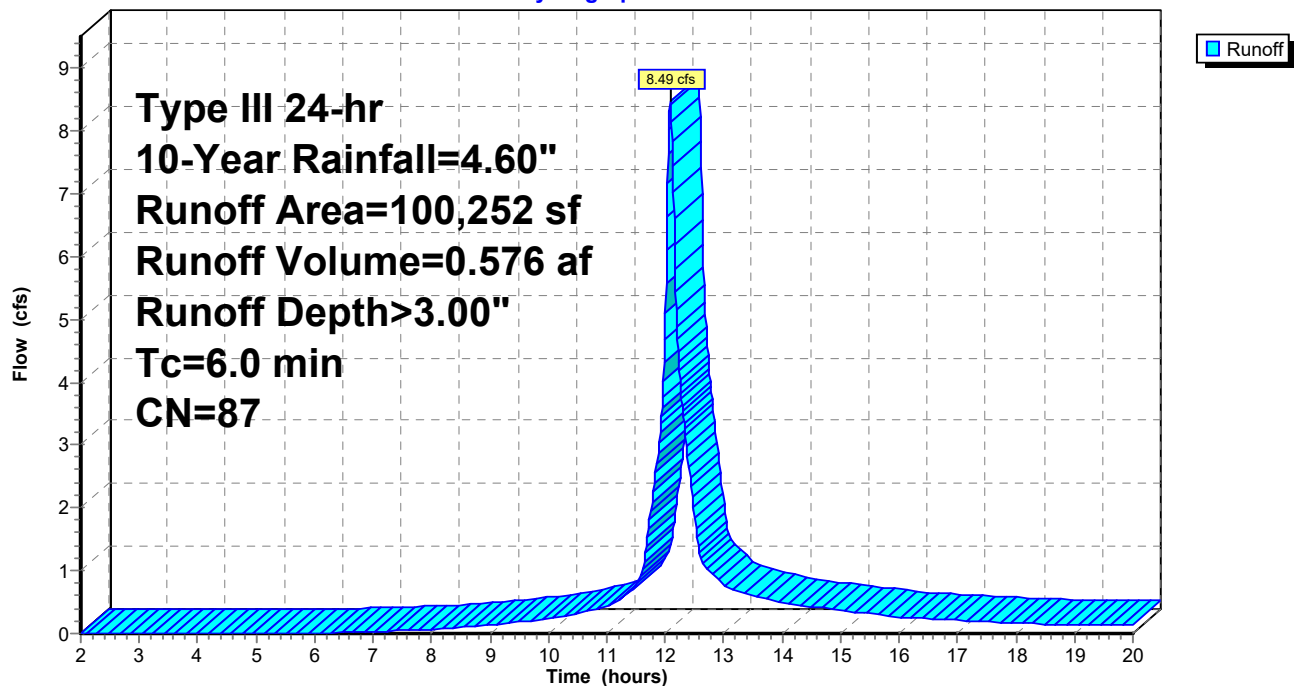
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.60"

Area (sf)	CN	Description
38,164	98	Paved parking, HSG D
62,088	80	>75% Grass cover, Good, HSG D
100,252	87	Weighted Average
62,088		61.93% Pervious Area
38,164		38.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 2S: East Parcel

Hydrograph



Front Street Pre Development

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Type III 24-hr 10-Year Rainfall=4.60"

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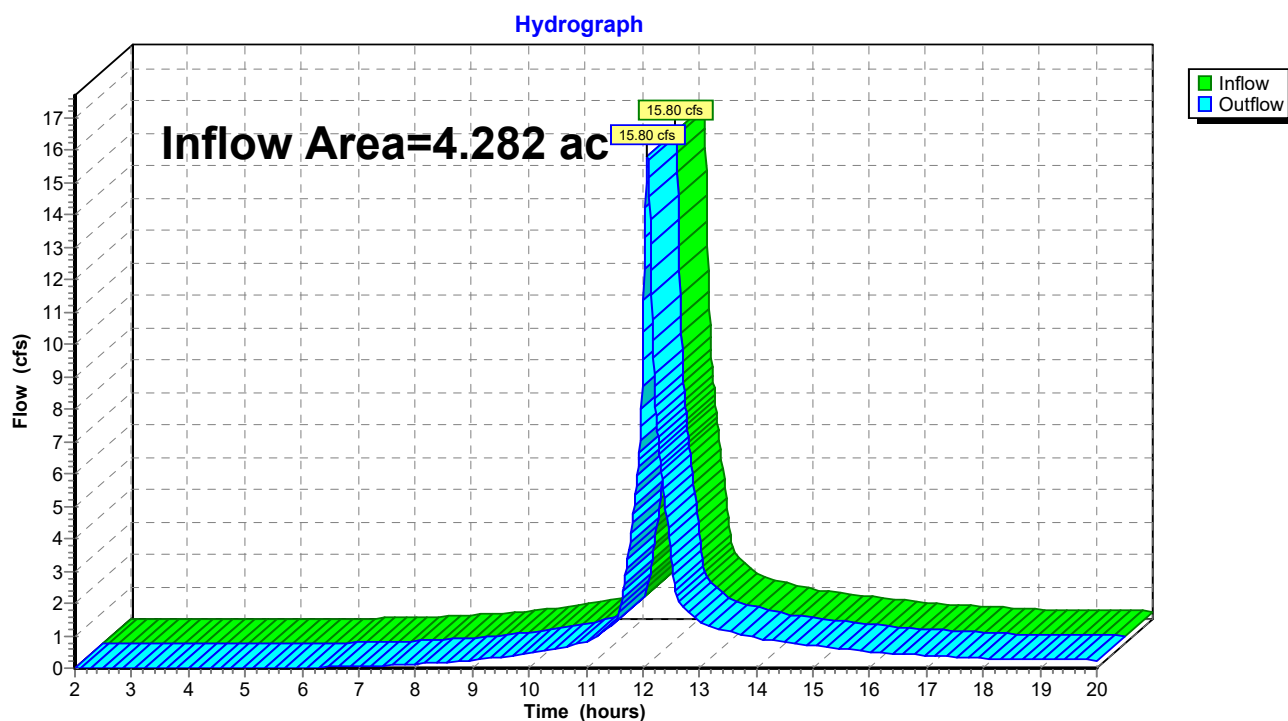
Summary for Reach 1R: ANALYSIS POINT A: Front Street 30" Combined Sewer

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.282 ac, 38.24% Impervious, Inflow Depth > 3.00" for 10-Year event
Inflow = 15.80 cfs @ 12.09 hrs, Volume= 1.071 af
Outflow = 15.80 cfs @ 12.09 hrs, Volume= 1.071 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Reach 1R: ANALYSIS POINT A: Front Street 30" Combined Sewer



Front Street Pre Development

Type III 24-hr 25-Year Rainfall=5.80"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: West Parcel + Kiley

Runoff Area=86,254 sf 38.44% Impervious Runoff Depth>4.08"

Tc=6.0 min CN=87 Runoff=9.78 cfs 0.674 af

Subcatchment2S: East Parcel

Runoff Area=100,252 sf 38.07% Impervious Runoff Depth>4.08"

Tc=6.0 min CN=87 Runoff=11.37 cfs 0.783 af

Reach 1R: ANALYSISPOINT A: Front Street 30" Combined Sewer

Inflow=21.14 cfs 1.457 af

Outflow=21.14 cfs 1.457 af

Front Street Pre Development

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 1S: West Parcel + Kiley Parcel

Runoff = 9.78 cfs @ 12.09 hrs, Volume= 0.674 af, Depth> 4.08"

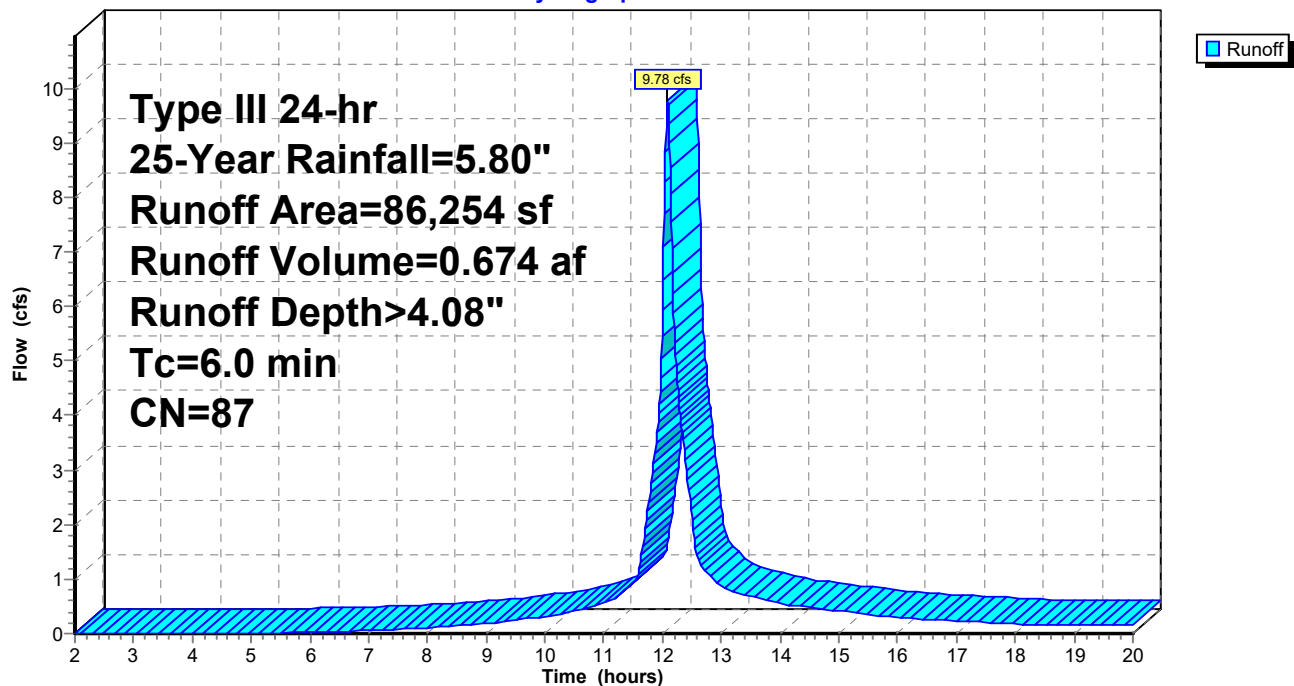
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
30,368	98	Paved parking, HSG D
40,894	80	>75% Grass cover, Good, HSG D
2,791	98	Paved parking, HSG D
12,201	80	>75% Grass cover, Good, HSG D
86,254	87	Weighted Average
53,095		61.56% Pervious Area
33,159		38.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 1S: West Parcel + Kiley Parcel

Hydrograph



Front Street Pre Development

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 2S: East Parcel

Runoff = 11.37 cfs @ 12.09 hrs, Volume= 0.783 af, Depth> 4.08"

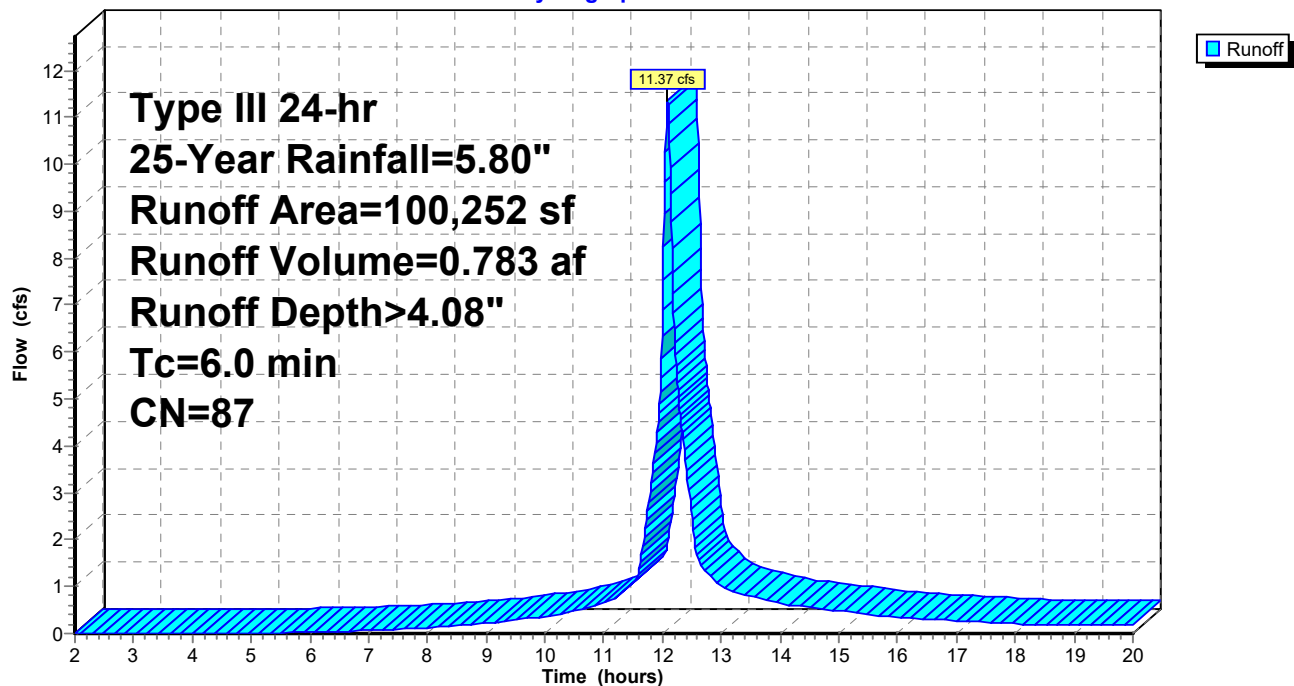
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
38,164	98	Paved parking, HSG D
62,088	80	>75% Grass cover, Good, HSG D
100,252	87	Weighted Average
62,088		61.93% Pervious Area
38,164		38.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 2S: East Parcel

Hydrograph



Front Street Pre Development

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Type III 24-hr 25-Year Rainfall=5.80"

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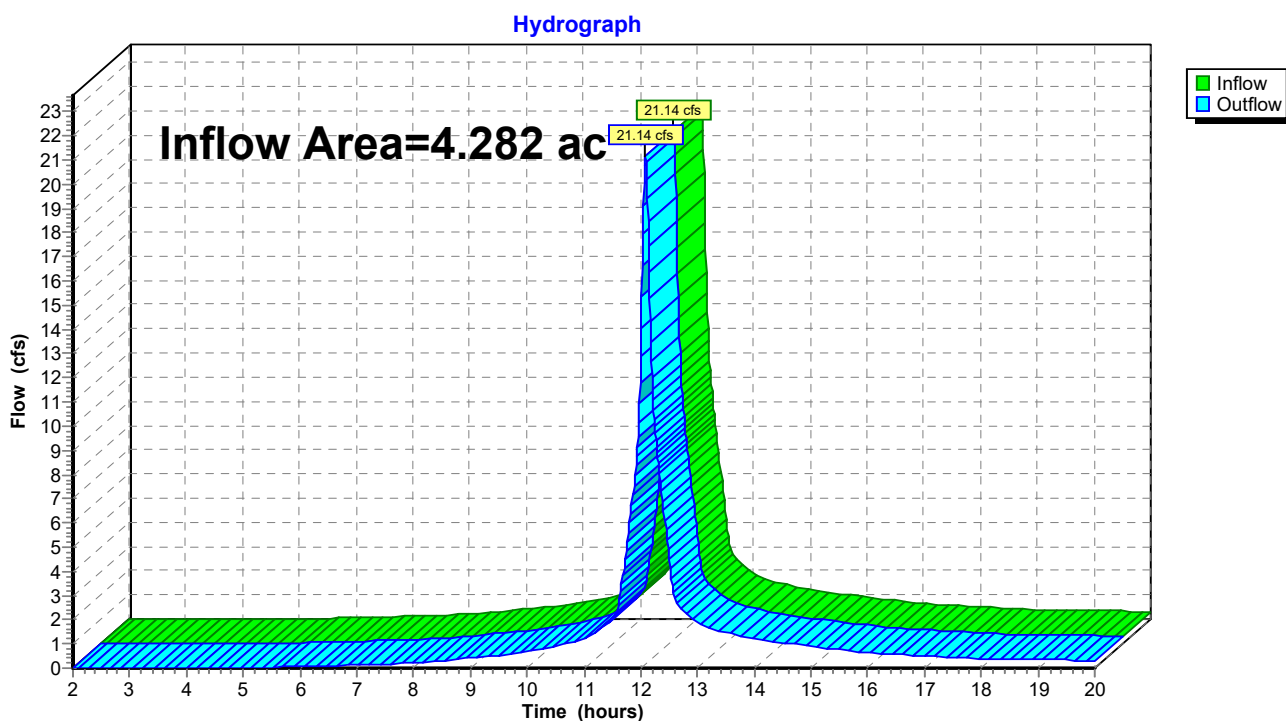
Summary for Reach 1R: ANALYSIS POINT A: Front Street 30" Combined Sewer

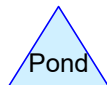
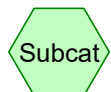
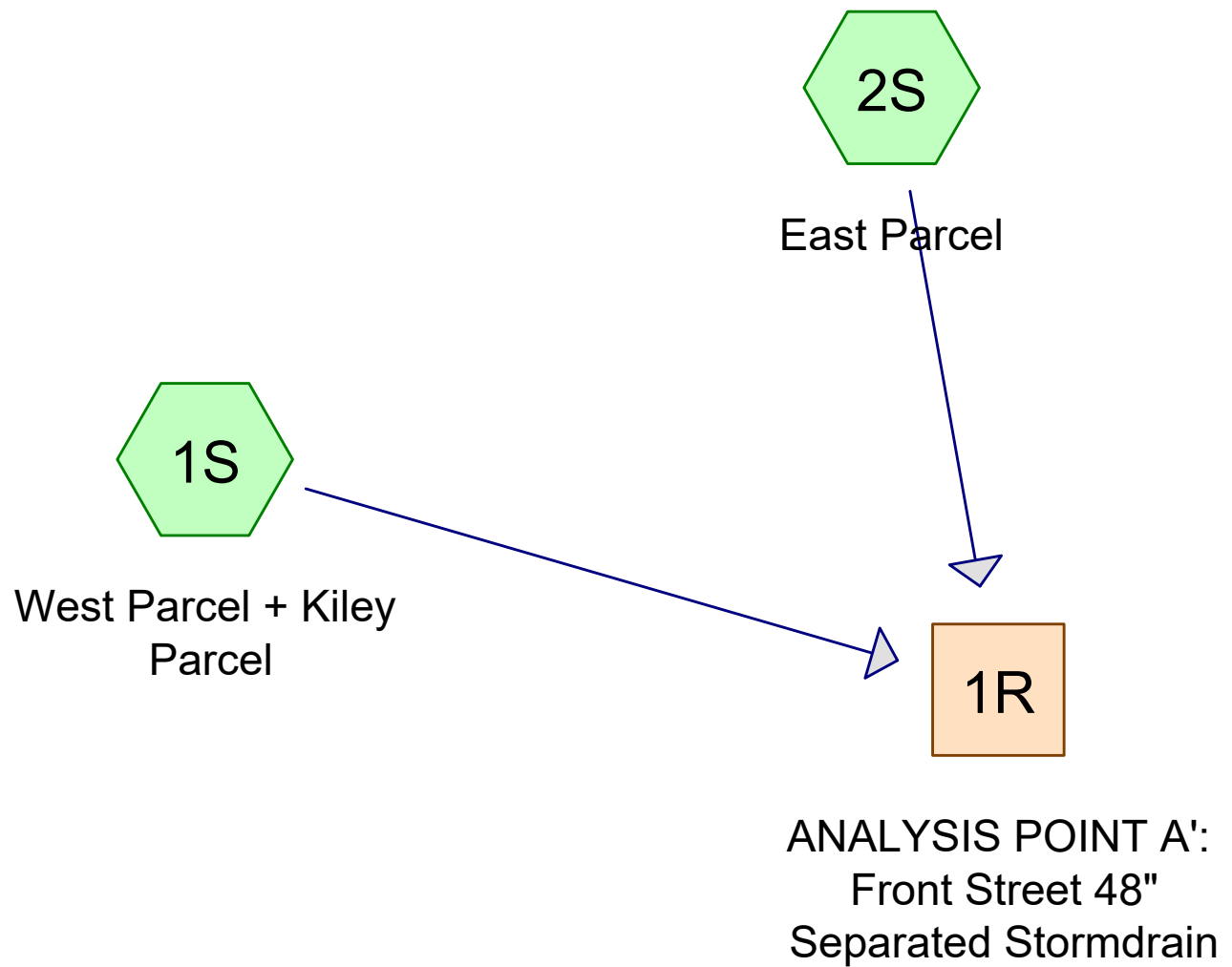
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.282 ac, 38.24% Impervious, Inflow Depth > 4.08" for 25-Year event
Inflow = 21.14 cfs @ 12.09 hrs, Volume= 1.457 af
Outflow = 21.14 cfs @ 12.09 hrs, Volume= 1.457 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Reach 1R: ANALYSIS POINT A: Front Street 30" Combined Sewer





Front Street Post Development

Type III 24-hr 2-Year Rainfall=3.10"

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Page 2

Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: West Parcel + Kiley

Runoff Area=86,254 sf 52.82% Impervious Runoff Depth>1.95"

Tc=6.0 min CN=90 Runoff=4.77 cfs 0.322 af

Subcatchment2S: East Parcel

Runoff Area=100,252 sf 58.42% Impervious Runoff Depth>2.04"

Tc=6.0 min CN=91 Runoff=5.75 cfs 0.391 af

Reach 1R: ANALYSISPOINT A': Front Street 48" Separated Stormdrain

Inflow=10.53 cfs 0.712 af

Outflow=10.53 cfs 0.712 af

Front Street Post Development

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Type III 24-hr 2-Year Rainfall=3.10"

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Summary for Subcatchment 1S: West Parcel + Kiley Parcel

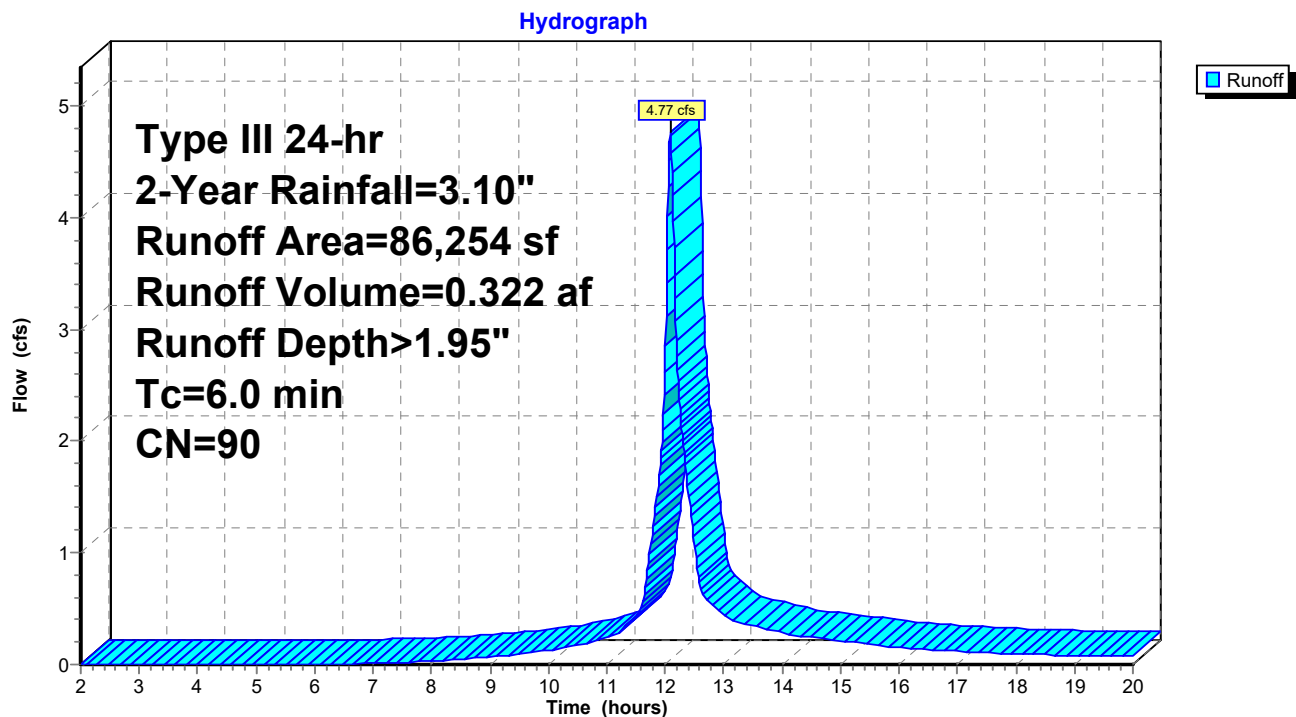
Runoff = 4.77 cfs @ 12.09 hrs, Volume= 0.322 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.10"

Area (sf)	CN	Description
45,561	98	Paved parking, HSG D
40,693	80	>75% Grass cover, Good, HSG D
86,254	90	Weighted Average
40,693		47.18% Pervious Area
45,561		52.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 1S: West Parcel + Kiley Parcel



Front Street Post Development

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Type III 24-hr 2-Year Rainfall=3.10"

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Summary for Subcatchment 2S: East Parcel

Runoff = 5.75 cfs @ 12.09 hrs, Volume= 0.391 af, Depth> 2.04"

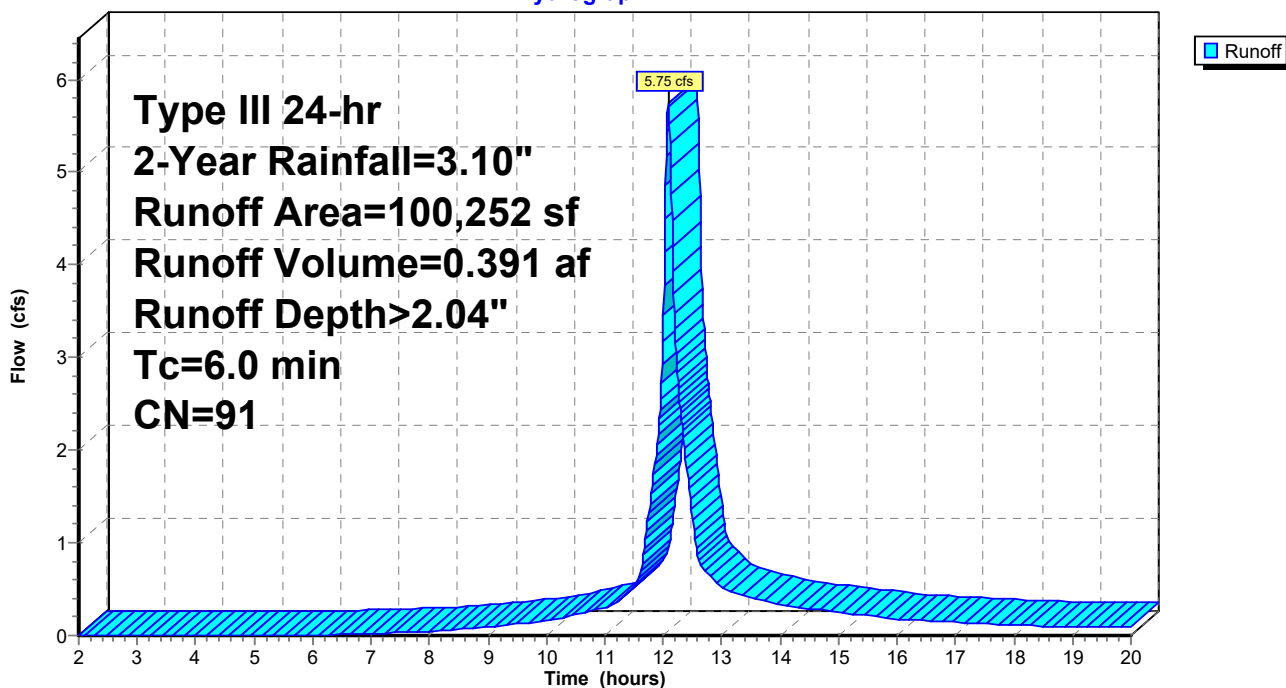
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.10"

Area (sf)	CN	Description
58,567	98	Paved parking, HSG D
41,685	80	>75% Grass cover, Good, HSG D
100,252	91	Weighted Average
41,685		41.58% Pervious Area
58,567		58.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 2S: East Parcel

Hydrograph



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Type III 24-hr 2-Year Rainfall=3.10"

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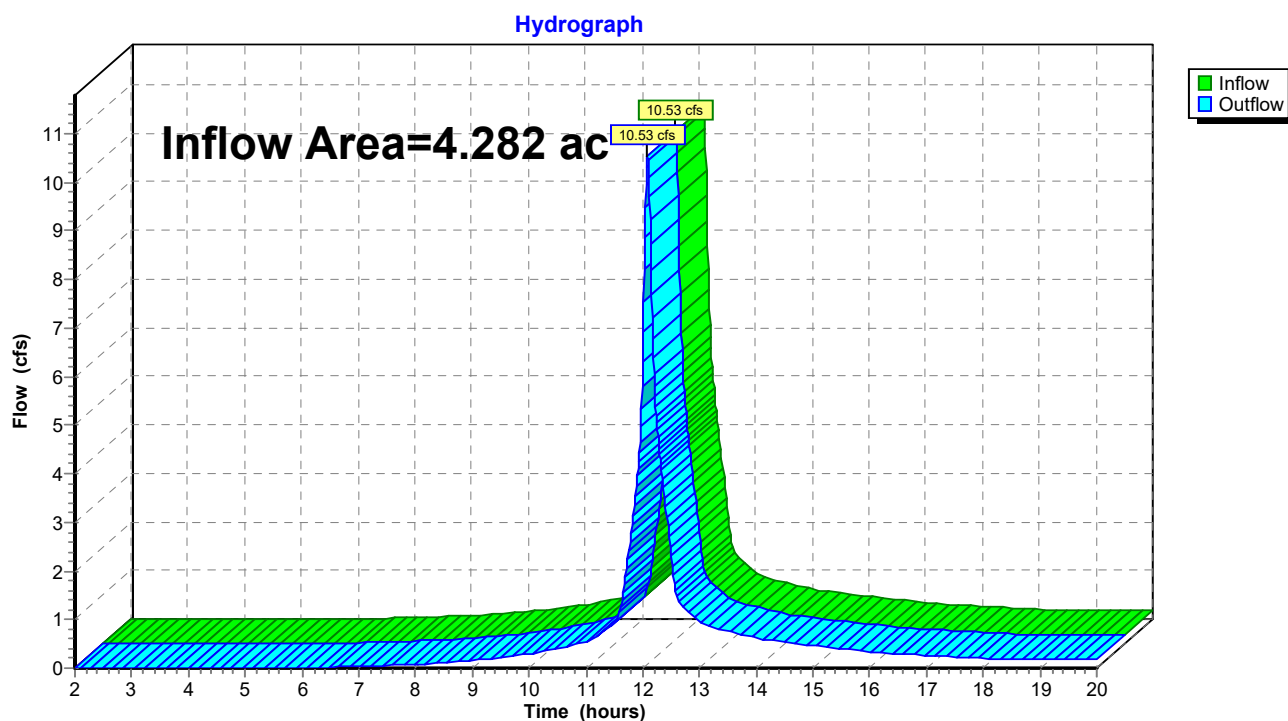
Summary for Reach 1R: ANALYSIS POINT A': Front Street 48" Separated Stormdrain

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.282 ac, 55.83% Impervious, Inflow Depth > 2.00" for 2-Year event
Inflow = 10.53 cfs @ 12.09 hrs, Volume= 0.712 af
Outflow = 10.53 cfs @ 12.09 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Reach 1R: ANALYSIS POINT A': Front Street 48" Separated Stormdrain



Front Street Post Development

Type III 24-hr 10-Year Rainfall=4.60"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: West Parcel + Kiley

Runoff Area=86,254 sf 52.82% Impervious Runoff Depth>3.30"

Tc=6.0 min CN=90 Runoff=7.86 cfs 0.544 af

Subcatchment2S: East Parcel

Runoff Area=100,252 sf 58.42% Impervious Runoff Depth>3.40"

Tc=6.0 min CN=91 Runoff=9.34 cfs 0.652 af

Reach 1R: ANALYSISPOINT A': Front Street 48" Separated Stormdrain

Inflow=17.20 cfs 1.196 af

Outflow=17.20 cfs 1.196 af

Front Street Post Development

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Type III 24-hr 10-Year Rainfall=4.60"

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Summary for Subcatchment 1S: West Parcel + Kiley Parcel

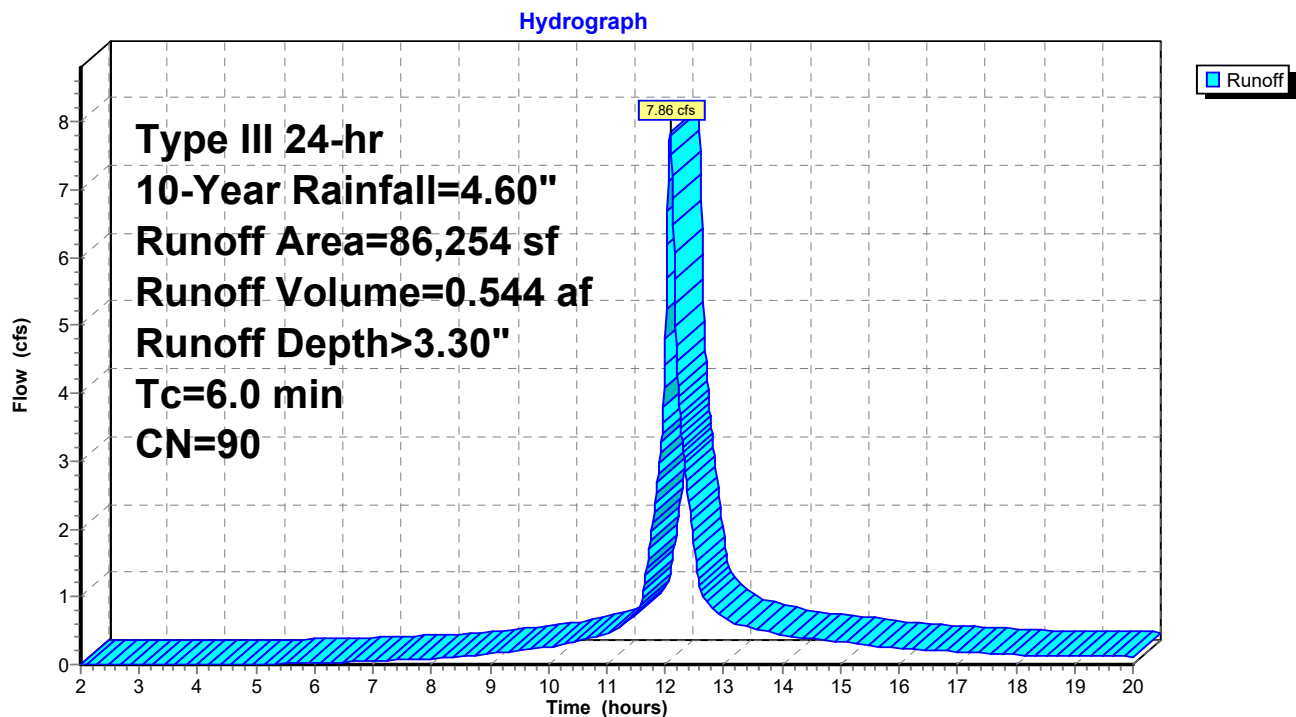
Runoff = 7.86 cfs @ 12.09 hrs, Volume= 0.544 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.60"

Area (sf)	CN	Description
45,561	98	Paved parking, HSG D
40,693	80	>75% Grass cover, Good, HSG D
86,254	90	Weighted Average
40,693		47.18% Pervious Area
45,561		52.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 1S: West Parcel + Kiley Parcel



Front Street Post Development

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Type III 24-hr 10-Year Rainfall=4.60"

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Summary for Subcatchment 2S: East Parcel

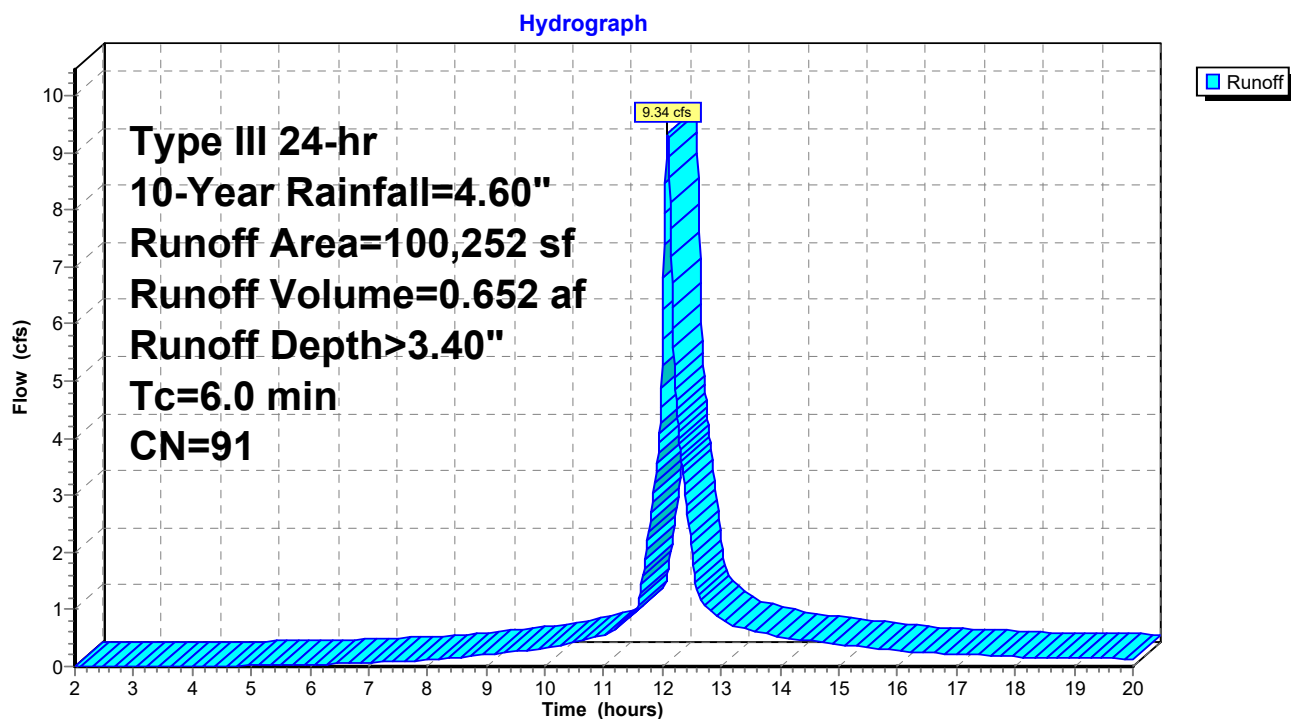
Runoff = 9.34 cfs @ 12.08 hrs, Volume= 0.652 af, Depth> 3.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.60"

Area (sf)	CN	Description
58,567	98	Paved parking, HSG D
41,685	80	>75% Grass cover, Good, HSG D
100,252	91	Weighted Average
41,685		41.58% Pervious Area
58,567		58.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 2S: East Parcel



Front Street Post Development

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Type III 24-hr 10-Year Rainfall=4.60"

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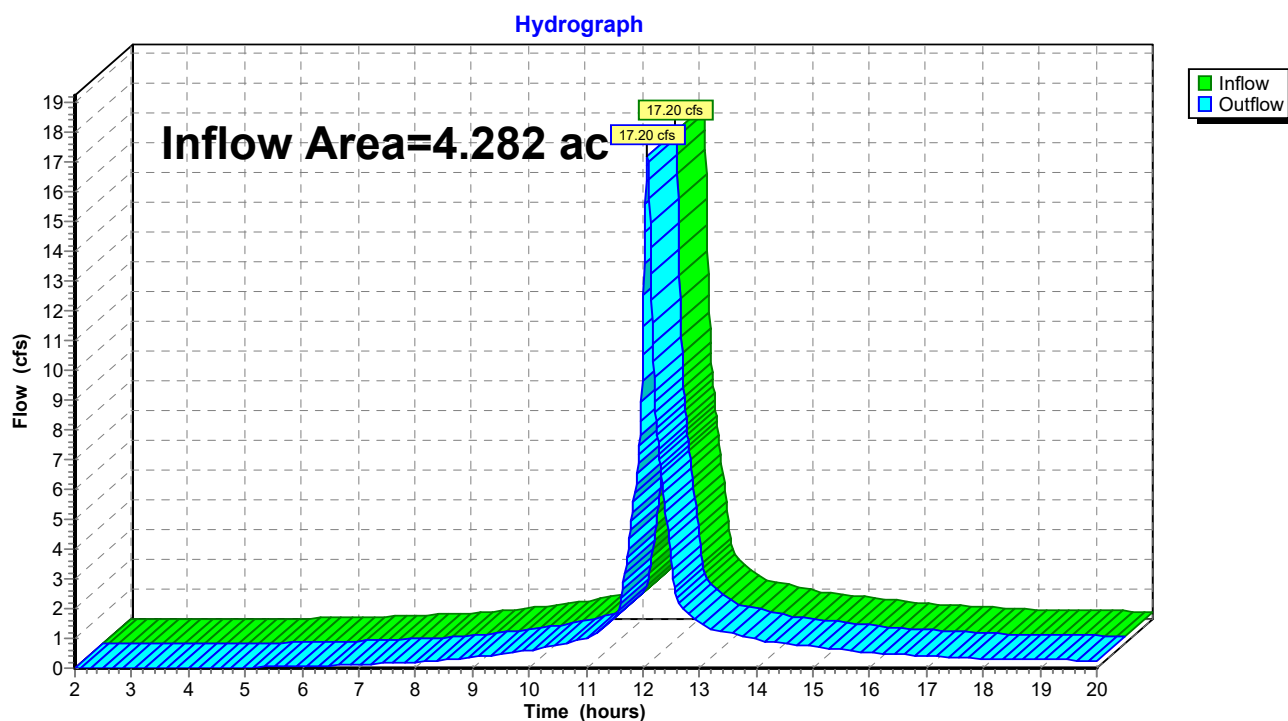
Summary for Reach 1R: ANALYSIS POINT A': Front Street 48" Separated Stormdrain

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.282 ac, 55.83% Impervious, Inflow Depth > 3.35" for 10-Year event
Inflow = 17.20 cfs @ 12.09 hrs, Volume= 1.196 af
Outflow = 17.20 cfs @ 12.09 hrs, Volume= 1.196 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Reach 1R: ANALYSIS POINT A': Front Street 48" Separated Stormdrain



Front Street Post Development

Type III 24-hr 25-Year Rainfall=5.80"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: West Parcel + Kiley

Runoff Area=86,254 sf 52.82% Impervious Runoff Depth>4.40"

Tc=6.0 min CN=90 Runoff=10.32 cfs 0.726 af

Subcatchment2S: East Parcel

Runoff Area=100,252 sf 58.42% Impervious Runoff Depth>4.51"

Tc=6.0 min CN=91 Runoff=12.18 cfs 0.865 af

Reach 1R: ANALYSISPOINT A': Front Street 48" Separated Stormdrain

Inflow=22.49 cfs 1.592 af

Outflow=22.49 cfs 1.592 af

Front Street Post Development

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 1S: West Parcel + Kiley Parcel

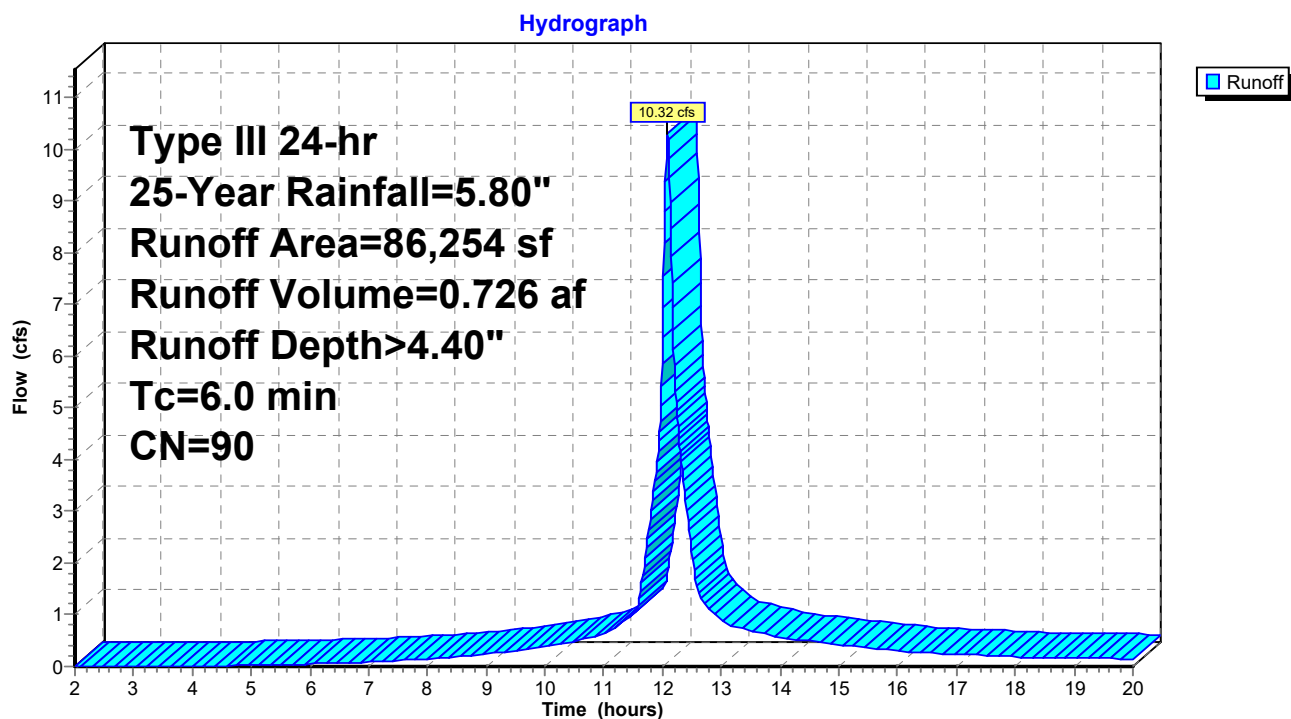
Runoff = 10.32 cfs @ 12.08 hrs, Volume= 0.726 af, Depth> 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
45,561	98	Paved parking, HSG D
40,693	80	>75% Grass cover, Good, HSG D
86,254	90	Weighted Average
40,693		47.18% Pervious Area
45,561		52.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 1S: West Parcel + Kiley Parcel



Front Street Post Development

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 2S: East Parcel

Runoff = 12.18 cfs @ 12.08 hrs, Volume= 0.865 af, Depth> 4.51"

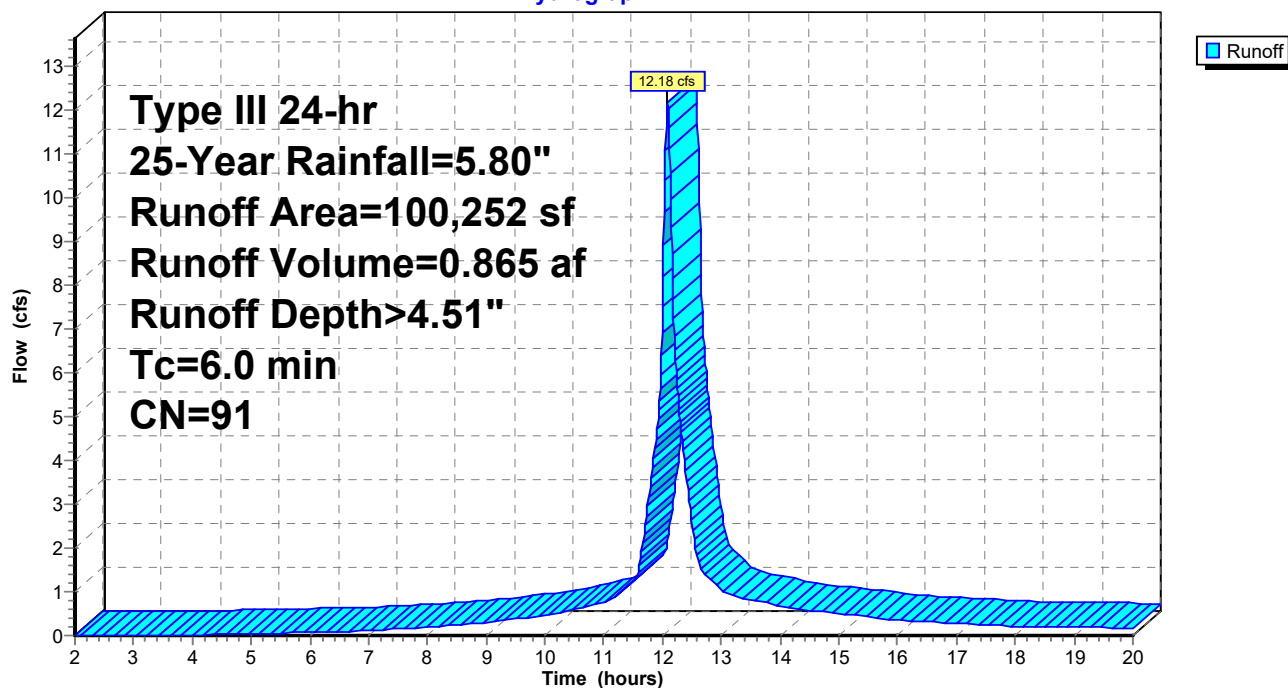
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
58,567	98	Paved parking, HSG D
41,685	80	>75% Grass cover, Good, HSG D
100,252	91	Weighted Average
41,685		41.58% Pervious Area
58,567		58.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, direct entry

Subcatchment 2S: East Parcel

Hydrograph



Front Street Post Development

Prepared by HP Inc.

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Type III 24-hr 25-Year Rainfall=5.80"

Printed 7/9/2019

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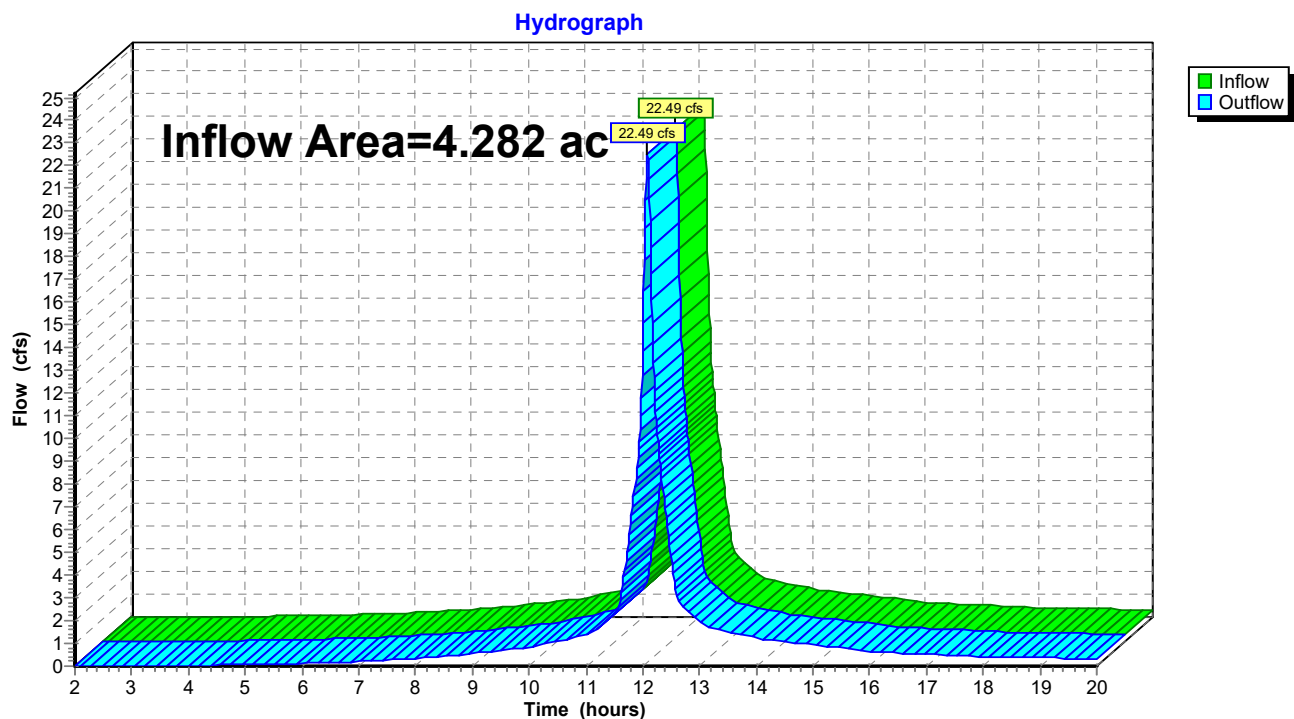
Summary for Reach 1R: ANALYSIS POINT A': Front Street 48" Separated Stormdrain

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.282 ac, 55.83% Impervious, Inflow Depth > 4.46" for 25-Year event
Inflow = 22.49 cfs @ 12.08 hrs, Volume= 1.592 af
Outflow = 22.49 cfs @ 12.08 hrs, Volume= 1.592 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Reach 1R: ANALYSIS POINT A': Front Street 48" Separated Stormdrain



Utility Capacity to Serve Letters

We have requested letters from the appropriate utility companies expressing their ability to serve the project, and will submit these to the City once received.

The following utilities will service the project:

<u>Utility</u>	<u>Provider</u>	<u>Location</u>
Water Service	Portland Water District	<u>Front St. / ILLsley St. / West Presumpscot St.</u>
Sanitary Sewer	City of Portland	<u>Front St. / ILLsley St. / West Presumpscot St.</u>
Stormdrain	City of Portland	<u>Front St. / ILLsley St. / West Presumpscot St.</u>
Power	Central Maine Power	<u>Front St. / ILLsley St. / West Presumpscot St.</u>

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION RANSOM

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division

Date: June 5, 2019

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 34 W. Presumpscot Street, Portland, Maine 04103

Chart Block Lot Number: Tax Map 166 Block B Lot # 1 and Tax Map 167 Block E Lot # 1

Proposed Use: Residential Apartments

Previous Use: Residential Apartments

Existing Sanitary Flows: _____ GPD

Existing Process Flows: N/A GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

See utility plan

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: _____ Phone: _____

Owner/Developer Name: Portland Housing Authority

Owner/Developer Address: 14 Baxter Boulevard, Portland, Maine 04101

Phone: 207-773-4753

Fax: _____ E-mail: _____

Engineering Consultant Name: Ransom Consulting, Inc

Engineering Consultant Address: 400 Commercial Street, Suite 404, Portland, Maine 04101

Phone: 207-772-2891

Fax: 207-773-4753

E-mail: john.mahoney@ransomenv.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: 22,310 GPD

Peaking Factor/ Peak Times: N/A

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) _____

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:	<u>N/A</u>
Size of External Grease Interceptor:	<u>N/A</u>
Retention Time:	<u>N/A</u>
Peaking Factor/ Peak Times:	<u>N/A</u>

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:	<u>N/A</u>	<u> </u>	GPD
Do you currently hold Federal or State discharge permits?	Yes <u> </u>	No <u> </u>	<u>N/A</u>
Is the process wastewater termed categorical under CFR 40?	Yes <u> </u>	No <u> </u>	<u>N/A</u>
OSHA Standard Industrial Code (SIC):	<u>(http://www.osha.gov/oshstats/sicser.html)</u>		
Peaking Factor/Peak Process Times:	<u>N/A</u>	<u> </u>	

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.

***See attached for Wastewater Calculations

Wastewater usage calculations:

Building # 1				
3	1 Bedroom Unit	X	120 gpd	= 360
3	2 Bedroom Unit	X	180 gpd	= 540
4	3 Bedroom Unit	X	270 gpd	= 1,080
3	4 Bedroom Unit	X	360 gpd	= 1,080
1	5 Bedroom Unit	X	450 gpd	= 450
Community Room (1946sf, 15sf/occupant)				
130	Occupants	X	5 gpd	= 650
Building # 1 Subtotal				4,160

Building # 2				
3	1 Bedroom Unit	X	120 gpd	= 360
4	2 Bedroom Unit	X	180 gpd	= 720
3	3 Bedroom Unit	X	270 gpd	= 810
3	4 Bedroom Unit	X	360 gpd	= 1,080
Building # 2 Subtotal				2,970

Building # 3				
5	1 Bedroom Unit*	X	120 gpd	= 600
1	2 Bedroom Unit	X	180 gpd	= 180
11	3 Bedroom Unit	X	270 gpd	= 2,970
2	4 Bedroom Unit	X	360 gpd	= 720
1	5 Bedroom Unit	X	450 gpd	= 450
Building # 3 Subtotal				4,920

*Includes studio units.

Building # 4				
3	1 Bedroom Unit	X	120 gpd	= 360
4	2 Bedroom Unit	X	180 gpd	= 720
4	3 Bedroom Unit	X	270 gpd	= 1,080
2	4 Bedroom Unit	X	360 gpd	= 720
Building # 4 Subtotal				2,880

Building # 5				
39	1 Bedroom Unit	X	120 gpd	= 4,680
6	2 Bedroom Unit	X	180 gpd	= 1,080
Building # 5 Subtotal				5,760

Building # 6				
6	2 Bedroom Unit	X	180 gpd	= 1,080
Building # 5 Subtotal				1,080

Building # 7				
2	3 Bedroom Unit	X	270 gpd	= 540
Building # 5 Subtotal				540

Total Usage:			22,310	gpd
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Consulting
Engineers
and Scientists

June 5, 2019

Project 151.06170

MEANS Division, Portland Water District
225 Douglass Street
PO Box 3553
Portland, Maine 04104-3553

RE: Request for Capacity to Serve Determination.
Proposed 113 Unit Apartment Development
384686 Front Street, Portland

To whom it may concern:

This letter is requesting a determination of whether the Portland Water District has the capacity to serve a proposed development located at 63 and 37 Front Street in Portland, and 35 West Presumpscot Street. The development will include seven buildings with a community space in Building 1. Please see the attached *Peak Flow Based on Fixture Count Spreadsheet*.

Enclosed, to assist in your review, are utility and drainage plans. It is our understanding that four (4) 4-inch water services currently serve the existing buildings. We propose to reuse these services to provide domestic water service for Buildings 1, 4, and 5; and we understand that these need to be double gated. New domestic services are proposed for Buildings 2 and 3 and a new fire service is proposed for each of the 6 buildings. Each service will have its own valve for independent operation; the only exception being a single fire service feeding Buildings 2 and 3.

Please let us know whether this proposed configuration is acceptable in terms of capacity and operation, and provide us with any specific service connection requirements. This development will have a sprinkler system for fire protection.

Please let me know if you have any questions or would like additional information: (207) 772-2891.

Sincerely,

A handwritten signature in blue ink that reads "John Mahoney". The signature is fluid and cursive, with the first name "John" and last name "Mahoney" clearly legible.

John Mahoney, P.E.
Project Engineer

Enclosure: Peak Flow Based on Fixture Count Spreadsheet & Utility Plans for the Front Street Redevelopment.

400 Commercial Street, Suite 404, Portland, Maine 04101, Tel (207) 772-2891, Fax (207) 772-3248
Pease International Tradeport, 112 Corporate Drive, Portsmouth, New Hampshire 03801, Tel (603) 436-1490
12 Kent Way, Suite 100, Byfield, Massachusetts 01922, Tel (978) 465-1822
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090
60 Valley Street, Building F, Suite 106, Providence, Rhode Island 02909, Tel (401) 433-2160

www.ransomenv.com

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	1

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	15	=	120
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	2	=	4
Kitchen Sink	2.2	x	14	=	30.8
Lavatory	1.5	x	18	=	27
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	1	=	4
Toilet -Flush Valve	35	x	2	=	70
-Tank Type	4	x	18	=	72
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	1	=	4
Dishwasher	2	x	14	=	28
Washing Machine	6	x	3	=	18
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	4	=	48

Combined Fixture Value Total 425.8

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)			
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)			
Hose Bibs for Irrigation:			
	Size	Fixture Value	No. of Fixtures
	1/2"		
	5/8"		
	3/4"		

Total Fixed Demand (Peak Flow) 0 gpm

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	2

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	13	=	104
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	13	=	28.6
Lavatory	1.5	x	16	=	24
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	1	=	4
Toilet -Flush Valve	35	x	0	=	0
-Tank Type	4	x	16	=	64
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	1	=	4
Dishwasher	2	x	13	=	26
Washing Machine	6	x	3	=	18
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	2	=	24

Combined Fixture Value Total 296.6

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)			
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)			
Hose Bibs for Irrigation:			
	Size	Fixture Value	No. of Fixtures
	1/2"		
	5/8"		
	3/4"		

Total Fixed Demand (Peak Flow) **0 gpm**

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	3

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	21	=	168
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	20	=	44
Lavatory	1.5	x	23	=	34.5
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	1	=	4
Toilet -Flush Valve	35	x	0	=	0
-Tank Type	4	x	23	=	92
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	1	=	4
Dishwasher	2	x	20	=	40
Washing Machine	6	x	3	=	18
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	2	=	24

Combined Fixture Value Total 428.5

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)		
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)		
Hose Bibs for Irrigation:		
	Size	Fixture Value
	1/2"	
	5/8"	
	3/4"	

Total Fixed Demand (Peak Flow) **0 gpm**

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	4

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	13	=	104
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	13	=	28.6
Lavatory	1.5	x	15	=	22.5
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	1	=	4
Toilet -Flush Valve	35	x	0	=	0
-Tank Type	4	x	15	=	60
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	1	=	4
Dishwasher	2	x	13	=	26
Washing Machine	6	x	3	=	18
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	2	=	24

Combined Fixture Value Total 291.1

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)	
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)	
Hose Bibs for Irrigation:	
Size	Fixture Value No. of Fixtures
1/2"	
5/8"	
3/4"	

Total Fixed Demand (Peak Flow) 0 gpm

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	5

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	45	=	360
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	45	=	99
Lavatory	1.5	x	45	=	67.5
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	1	=	4
Toilet -Flush Valve	35	x	0	=	0
-Tank Type	4	x	45	=	180
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	1	=	4
Dishwasher	2	x	45	=	90
Washing Machine	6	x	4	=	24
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	2	=	24

Combined Fixture Value Total 852.5

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)			
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)			
Hose Bibs for Irrigation:			
	Size	Fixture Value	No. of Fixtures
	1/2"		
	5/8"		
	3/4"		

Total Fixed Demand (Peak Flow) 0 gpm

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	6

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	6	=	48
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	6	=	13.2
Lavatory	1.5	x	12	=	18
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	0	=	0
Toilet -Flush Valve	35	x	0	=	0
-Tank Type	4	x	12	=	48
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	0	=	0
Dishwasher	2	x	6	=	12
Washing Machine	6	x	6	=	36
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	2	=	24

Combined Fixture Value Total 199.2

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)			
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)			
Hose Bibs for Irrigation:			
	Size	Fixture Value	No. of Fixtures
	1/2"		
	5/8"		
	3/4"		

Total Fixed Demand (Peak Flow) 0 gpm

Peak Flow Based on Fixture Count

Customer	Portland Housing Development Cooperation
Street Address	63 and 37 Front Street
City	Portland
Building	7

Fixture	Fixture Value 60 psi		No. of Fixtures		Fixture Value
Bathtub	8	x	2	=	16
Bedpan Washers	10	x	0	=	0
Bidet	2	x	0	=	0
Dental Unit	2	x	0	=	0
Drinking Fountain - Public	2	x	0	=	0
Kitchen Sink	2.2	x	2	=	4.4
Lavatory	1.5	x	4	=	6
Showerhead (Shower Only)	2.5	x	0	=	0
Service Sink	4	x	0	=	0
Toilet -Flush Valve	35	x	0	=	0
-Tank Type	4	x	4	=	16
Urinal -Pedestal Flush Valve	35	x	0	=	0
-Wall Flush Valve	16	x	0	=	0
Wash Sink (Each Set of Faucets)	4	x	0	=	0
Dishwasher	2	x	2	=	4
Washing Machine	6	x	2	=	12
Hose (50 ft. Wash Down) -1/2 in.	5	x	0	=	0
-5/8 in.	9	x	0	=	0
-3/4 in.	12	x	2	=	24

Combined Fixture Value Total 82.4

Customer Peak Demand From Fig. 4-2 or 4-3

Pressure Factor From Table 4-1

No. of Irrigation Sections (Areas of 100 sq. ft.)	
Irrigation Factor (1.16-Spray Systems, 0.40-Rotary Systems)	
Hose Bibs for Irrigation:	
Size	Fixture Value No. of Fixtures
1/2"	
5/8"	
3/4"	

Total Fixed Demand (Peak Flow) 0 gpm

FRONT STREET APARTMENTS REQUEST FOR WAIVERS

Att. S

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' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Minimum Driveway Width	1.7.2.3. Minimum driveway width (two-way): Any site with driveway access to a street shall have a minimum width of 20 feet for two-way ingress and egress, with a preferred width of 24 feet .	Reduce Driveway Width to 18 feet wide	Consistent with existing cross section/ dimensions of West Presumpscot Street
Minimum Parking Lot Aisle Width	Portland Technical Manual Figure I-27 Standard parking Spaces	Reduce Parking Lot aisle width to 22 ft.	Reduction of aisle width allows greater separation between parking and buildings, increases open space, and not anticipated to impact maneuverability due to low turnover rates
Percentage of Compact Parking Spaces	Portland Technical Manual Section 1.14. Any parking lot with 10 or fewer spaces shall contain standard sized parking spaces. Parking lots with greater than 10 spaces may be comprised of up to 20% compact parking spaces.	Based on 114 parking spaces a total of 22 compact spaces would be allowed. We are requesting a total of 29 compact spaces be allowed	Slight increase in compact spaces coincides with recent trends towards smaller cars and allows increased open space and buffers adjacent to parking lots.

Zoning Requirements:

A. Ensuring Workforce Housing: Standards -Section 14-484:

(d) Workforce Housing Minimum At least ten percent (10%) of the units in the project shall meet the definition of workforce housing unit for sale or for rent. The number of units required is rounded down to a whole number if providing units on- or off-site, or shall include a fractional value in cases where a project prefers to pay a fee-in-lieu as per (e)3. below.

The project is a Low Income Housing Tax Credit project with 80% affordable to those households earning at or below 60% Area Median Income. 20% of the units will be market rate.

(e) Standards

1. Projects shall not be segmented or phased to avoid compliance with these provisions. In cases where projects are completed in phases, affordable units shall be provided in proportion to the development of market rate units unless otherwise permitted through regulations.

The project will be funded and constructed in three distinct phases. Phase 1 will include 60 units of family housing on the east side of West Presumpscot Street. Phase 2 will include 45 units of senior housing on the west side of West Presumpscot Street. Phase 3 will include 8 townhouse ownership units on the parcel of land north of Phase 2. Appropriation of affordable / market rate units will follow the phasing, with 80% affordable and 20% market rate per phase.

2. Workforce units are encouraged to be integrated with the rest of the development, should use a common entrance and should provide no indications from common areas that these units are workforce housing units.

All units are designed to the same standard. There will be complete integration of the workforce housing within the buildings and throughout the site.

3. Workforce units need not be the same size as other units in the development but the number of bedrooms in such units, either on- or off-site, shall be 10 percent of the total number of bedrooms in the development. For the purposes of this section, for every 400 square feet in a market rate unit will count as a bedroom if the actual number of bedrooms in the unit is lower.

We exceed the minimum 10% affordability (80%).

4. As an alternative to providing workforce housing units, projects may pay a fee in lieu of some or all of the units. In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489. The fee for affordable units not provided shall be \$100,000 per unit, adjusted annually in the same way as the fee under Division 29 for Housing Replacement.

N/A

5. Workforce housing units for sale, if converted to workforce housing units for rent, shall become subject the income limits and other requirements of such units.

N/A

6. If at least 33 percent of the units in a development are workforce units, the development is eligible for subsidy through an Affordable Housing TIF, subject to City Council approval.

The project has applied for a TIF.

7. The term of affordability for the required 10 percent workforce units provided shall be defined as follows:

Percentage of Workforce Units Provided	Minimum Term of Affordability for Required Workforce Units
10%	Longest term permitted under federal, state and local laws and ordinances
25%	30 years
50%	20 years
100%	10 years

Because City of Portland Federal HOME funds are planned for use in the development, our term of affordability will be 90 years.

(f) Implementing Regulations. Regulations to further specify the details of this section shall be developed, including, but not limited to:

1. Specific methodology for income verification;
2. Situations where less than permanent affordability might be considered; and
3. Guidelines for meeting the requirement that off-site units be “in the same neighborhood”.

Date: May 28, 2019
 Project: Front Street Development
 Client: Front Street Redevelopment, LP

CODE ANALYSIS

Architecture
 & Planning

115 Kingston St.
 Boston, MA 02111
 utiledesign.com

Applicable Codes and Regulations

	Local Code	Model Code
Building	MUBEC	2015 IRC and IBC
Energy Code		2015 IECC
Mechanical		2013 ASHRAE
Plumbing	ME State Plumbing Code	IAMPO 2015 Uniform Plumbing Code
Electrical		NEC 2017
Radon		ASTM E-1465-08A
Life Safety		NFPA 101 - Life Safety Code
		NFPA 211 2003 (Chimneys, etc.)
		NFPA 1 - Fire Prevention Code
Accessibility and Fair Housing	2016 - Maine State Housing Authority- Quality Standards and Procedures Manual (2016-MSHA)	
	State Fair Housing - Maine Human Rights Act	
	Americans With Disabilities Act	
	Accessible and Usable Buildings and Facilities ICC / ANSI A-117.1 2009	
	Fair Housing Act (design manual)	
	Section 504	
	Uniform Physical Conditions Standards (UPCS)	

Height and Area Limitations

USE AND OCCUPANCY CLASSIFICATION		
	Apartments	
IBC 2015, Chapter 3, Section 310.4	R-2	Sleeping units with more than two dwellings, primarily permanent in nature
	Community Center	
IBC 2015 Chapter 3, Section 303.4	A-3	Community Halls
	Storage	
IBC 2015, Chapter 3, Section 311.2	S-1	Moderate Hazard
IBC 2015 Chapter 3, Section 311.1.1	Accessory Storage	Less than 100 SF, aggregate area not to exceed limits in Section 508.2
IBC 2015, Chapter 5, Section 503.1.2, IBC 2015, Chapter 5, Section 508	Buildings on the Same Lot	
IBC 2015, Chapter 4, Section 424	Children's Play Structures	

OCCUPANCY ALLOWABLE BUILDING HEIGHT			
Construction Type	Type VA		
Occupancy	A-3	R-2	S-1
Sprinkler System	NFPA-13	NFPA-13	NFPA-13
Allowable Height (IBC 2015, T504.3)	60'-0"	60'-0"	60'-0"
Allowable Stories (IBC 2015, 504.4)	2	3	3
Allowable Area (IBC 2015, T506.2)**	34,500 SF (I-Story)	36,000 SF	42,000 SF

**The allowable area listed does not include an area increase; the maximum allowable area increase will not exceed the current area of each building.

NFPA-13 system allows for 36,000SF at R-2 occupancy and VA construction.

Fire Resistant Construction

FIRE RESISTANT CONSTRUCTION

IBC 2015, Chapter 4, Section 420.2	Separation Walls:	Dwelling unit separation walls shall be constructed as FIRE PARTITIONS (See Section 708)
IBC 2015, Chapter 4, Section 420.3	Horizontal Separation:	Dwelling Unit Separation floors shall be constructed as HORIZONTAL ASSEMBLIES (See
IBC 2015, Chapter 5, Section 509	Incidental Uses	See for furnace and boiler limitations.

FIRE SUPPRESSION SYSTEM

IBC 2015, Chapter 4, Section 420.5	Automatic Sprinkler System	Equiped through out in accordance with SECTION 903.2.8, QUICKRESPONSE 903.3.2
Narrative	The building shall be fitted with fully automatic and supervised sprinkler systems. Provide design and components as necessary to meet NFPA 13 and local codes. Zone supervision will be provided for each story. Fire department connection type and location shall be per Portland Fire Department requirements. A hydrant flow test will be performed to confirm the municipal water supply.	

2016-MSHA

SMOKE ALARMS

IBC 2015, Chapter 4, Section 420.6	Fire Alarm & Smoke Alarms	Fire and smoke alarms shall be provided in accordance with SECTION 907.2.6, 907.2.8, 907.2.9, 907.2.10.
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FIRE-RESISTANCE RATING REQUIREMENTS

Table 601	Primary Structural Frame	1 Hour
	Bearing Walls	1 Hour
	Floor Construction	1 Hour
	Roof Construction	1 Hour
Section 711.2.4.3, exp.	Unit Horizontal Separation	1/2 Hour
Section 708.3, exp.2	Unit Separation Walls	1/2 Hour
Section 708.3, exp 1	Corridor Walls	1/2 Hour
Table 508.2.5	Boiler Rooms over 400,000 BTU/Hr	1 Hour or Sprinkered
Table 508.2.5	Laundry Rooms over 100 SF	1 Hour or Sprinkered
Table 508.2.5	Waste Collection over 100 SF	1 Hour or Sprinkered
Table 716.5	Opening, Corridor Doors	1/3 Hour

Means of Egress and Dimensional Requirements

IBC 2015, Chapter 10, Section 1007.1.1	1/3 separation distance with automatic sprinkler system		
Section 1011.2	44" minimum stairway width		
Table 1020.2	44" minimum corridor width		
IBC 2015, Chapter 12, Section 1208.2	Occupiable Ceiling Hts	7'-6"	
	Other Ceiling Heights	7'-0"	Bathrooms, Kitchens, Storage, Laundry, and Corridors

Energy Code

ENVELOPE EFFICIENCY

IECC 2015	Climate Zone: 6		
		Req'd	Provided
2016-MSHA		Whole Building Blower Door Testing	Air seal each unit and test each unit.
IBC 2015, Chapter 12, Table 1203.3	Unvented Attics and Unvented Enclosed Rafter Assemblies	R-25 Air Impermeable Insulation	R-26 Air Impermeable Insulation

IECC 2015, T402.1.2

Required R-Values

Req'd

Provided (Insulation Only)

Fenestration U-Factor	U-0.32	to meet or exceed req'd
Roof	R-49	R-58 (26+32)
Exterior Walls	R-20+5 or R13+10	R-40
Mass Walls	R-20	R-39
Floor	R-30	N/A
Slab on Grade	R-10	R-20

HVAC EMISSIONS REQUIREMENTS

The building HVAC will utilize Mitsubishi "Hyperheat" electric heat pumps with variable speed compressors. There will be no fossil fuel HVAC. The domestic hot water will be heated by high-efficiency natural gas water heaters with direct venting to the outside.

Sound Attenuation Requirements

Unit to Unit Floor and Wall Assemblies

IBC 2015, SECTION 1207	Req'd	Provided	
STC (non-site tested)	50		Dwelling and Sleeping Unit Separation
IIC (non-site tested)	50		Dwelling and Sleeping Unit Separation

Elevators

Section 713.4	Shaft Construction	1 Hour
Section 3006.2	Elevator Lobby Separation	Not required, connects 3-stories or less
Section 1009.2.1	Elevator Required in Accessible Means of Egress	Not required, accessible floor less than 4-stories above the level of exit discharge
Section 3002.4	Car Size	Not required to accommodate ambulance stretcher, connects less than 4-stories
Section 403.6.1	Fire Service Access	Not required less than 120 feet

NFPA 1 - Code Analysis

Use Group

6.1.8.1.5	Apartment Building	99 Total Units
6.1.2.1	A-2 Assembly	

Fire Protection Markings

10.12.1.1	Premises shall be marked
10.12.2	Shaftways to be Marked for Fire Safety
10.12.3	Stairway Identification

Building Construction

12.2	Construction: Shall comply with this section and referenced codes.
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Fire Ratings

12.7.1	Fire Barriers per NFPA 101
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Opening Protection

	Wall	Door
Table 12.7.4.2	Corridors	1/3 hour
	1-Hour Barriers	3/4 hour
	1-Hour Shafts and Exits	1 hour
	2-Hour Shafts and Exits	1.5 hour

Occupant Load

	Occupancy	
Table 14.8.1.2	Residential	1/200 GSF
	Assembly, Unconcentrated	1/15 Net
	Business Areas	1/100 GSF

Means of Egress

	Capacity Factor	
Table 14.8.3.1	Stair	0.3 in per person
	Other	0.2 in per person

Marking of Means of Egress

14.14	Per section
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Fire Suppression

13.3.2.15.2	NFPA 13R	IBC Governs
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Stand Pipes

13.2.2	Not required
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Fire Alarm System

13.7.1	Fire alarm system requirements
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Smoke Detectors

13.7.2.11.3	in every sleeping area, outside every sleeping area, and on all levels of the dwelling unit.
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Extinguishment Requirements

13.6	Portable Fire Extinguishers	
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Elevators Lobby

149.1.6.1	Shall have access to at least one exit.
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Accessibility

	See section 14.10.4
1410.4.1	Shall not have less than two accessible means of egress.

Date: May 28, 2019
Project: Front Street Development
Client: Front Street Redevelopment, LP

CITY OF PORTLAND DESIGN MANUAL APPLICABLE DESIGN STANDARDS

a. Design Relationship to Site

Site Design and Vegetation Selection: The site organization of the buildings relates to and enhances the local context. The buildings are outward facing and set back to mimic adjacent neighbors. Parking areas have been pulled away from primary street edges to give way for more building frontage. A new driveway transects the east site. This new drive is designed to mimic the width of Presumpscot Street and has parallel parking for a street like feel.

Presumpscot Street bisects the developments; speeding local traffic on this street has been a point of concern from the neighborhood. The new design calls for a raised cross walk for traffic calming. This addresses the concern and stitches together the two sides of the development.

The buildings ground floor elevations and entries are located to fit into the existing topography.

The concept for the site pedestrian movement is to create a network of paths. Shared outdoors spaces are located along the pedestrian path network; some of these spaces are a central green, play areas, exterior spill out space from the community building, and an open space that leads people to a new street crossing to Payson Park. This pedestrian network and outdoor features are designed to encourage and invite both the Front Street and neighborhood residents through the development instead of around the Front Street development.

Vegetation has been selected from indigenous drought tolerant varieties, and the design is to enhance and strengthen the local street tree and wooded character of the neighborhood. The existing condition have approximately sixteen 'specimen' trees, while the proposed design will increase that count to at least fifty new trees. The pedestrian network is also enhanced by the new planted landscape concept.

Stormwater Management: Surface stormwater from roofs parking areas and green space will be directed towards multiple rain garden areas dispersed throughout the site. These rain gardens will be underdrained and designed to remove pollutants and sediment and to cool stormwater before it is discharged into the Back Cove, which discharges to Casco Bay. In general, the existing surface drainage patterns will be retained. Overflows from the rain gardens during heavy rain events will drain into catch basins. During extreme rain events, the rain gardens will overflow to the surface and the site will be graded to direct overflows towards the roadways and away from the buildings.

The site's existing stormwater system is connected to the City's combined drainage system, which is often overwhelmed during heavy rain events, resulting in Combined Sewer Overflows (CSO), the discharge of untreated sewerage into Casco Bay. The proposed stormdrain system will be completely separate from the sewer system, which will reduce the strain on the combined sewer system during heavy rains and, in turn, help to reduce the duration and frequency of CSO's.

Please see the Stormwater Management Narrative and attachments for additional information.

Disaster Prevention through Flood Resiliency: In order to prevent damage from flooding events, the building finish floor elevations will be at least 2.7 feet above FEMA's proposed Base Flood Elevations. Also, the site will be graded such that during extreme rain/flooding events, stormwater will overflow into the adjacent streets well before reaching the level of building finish floor elevations.

b. Internal Design Character and Relationship to Surrounding Neighborhood: The massing concept of the residential buildings meaningfully engages with the scale and residential fabric of the neighborhood. The height of the buildings undulates between two and three stories, and this is in keeping with the neighborhood's residences. The base massing of the residential buildings is two stories, and has features that echo the scale and variety found in the neighborhood. The projected and raised features animate the building facade, and give the space between the scale of a two story colonial home. Porches have been added to give the project a townhouse feel and encourage conviviality with neighbors.

c. Recreational Open Space

1. *External Buffers:* Recreational open spaces are buffered from neighboring homes with the proposed buildings and screening plant elements.
2. *Internal Buffers:* Ornamental trees screening, like amelanchier, is used between walkways and residential units at the interior elevations. At the street side facades, larger trees, like tulip trees, and grass strips are used to buffer ground floor residential units from the public sidewalk.
3. *Passive recreation open space:* A variety of recreation elements are integrated into the site design, like benches, lawn areas, covered spill out space from the community building, and shaded seating areas.
4. *Active recreation open space:* The proposed project feature multiple play areas, a central lawn for field play, and an improved connection to Payson Park.
5. *Private open space:* Ground floor units feature stoops to encourage conviviality with neighbors.

Date: May 28, 2019
Project: Front Street Development
Client: Front Street Redevelopment, LP

PORTLAND FIRE DEPARTMENT SITE REVIEW CHECKLIST

Client

Front Street Housing Revelopment, LP
c/o Portland Housing Development Corporation
14 Baxter Boulevard
Portland Maine 04101
207 773-4753

Architect

Utile, Inc.
115 Kingston Street
Boston, Massachusetts 02111
617 423-7200

1. See attached code report for building uses.
2. See A2.1 to A2.6 for building areas per story.
3. See A2.1 to A2.6 for elevations.
4. See attached code report for proposed fire protection.
5. See C4.1 to C4.2 for proposed hydrant locations
6. See C4.1 to C4.2 for water main size and locations
7. Access to all structures is provided on at least two sides.
8. See attached code summary

VIPER S

OPTICS

STRIKE

SMALL VIPER LUMINAIRE

Cat.#

Job

Type



Approvals

SPECIFICATIONS

Intended Use:

The Beacon Viper luminaire is available with a wide choice of different LED Wattage configurations and optical distributions designed to replace HID lighting up to 400W MH or HPS.

Construction:

- Manufactured with die cast aluminum.
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements.
- External hardware is corrosion resistant.
- One piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- Two-piece silicone and micro-cellular polyurethane foam gasket ensures a weather-proof seal around each individual LED.

Electrical:

- 100V through 277V, 50 Hz to 60 Hz (UNV), or 347V or 480V input.
- Power factor is $\geq .90$ at full load.
- Dimming drivers are standard, but must contact factory to request wiring leads for purpose of external dimming controls.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher.
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- Fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections.
- Surge protection - 20kA.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices.
- Lifeshield™ Circuit - protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range. Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.).

Controls/Options:

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the Motion Response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration.
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night (see www.beaconproducts.com/products/energeni).
- In addition, Viper can be specified with SiteSync™ wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7. For more details, see ordering information or visit: www.hubbelllighting.com/sitesync

Installation:

- Mounting options for horizontal arm, vertical arm or traditional arm mounting available. Mounting hardware included.

Finish:

- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

Certifications/Ratings:

- DesignLights Consortium (DLC) qualified, consult DLC website for more details: <http://www.designlights.org/QPL>
- Certified to UL 1598, UL 8750 and CSA C22.2 No.250.0
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: <http://www.beaconproducts.com/products/vipersmall>

Warranty:

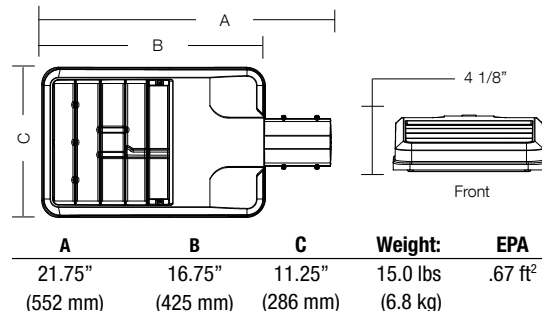
Five year limited warranty for more information visit: www.hubbelllighting.com/resources/warranty

PRODUCT IMAGE(S)

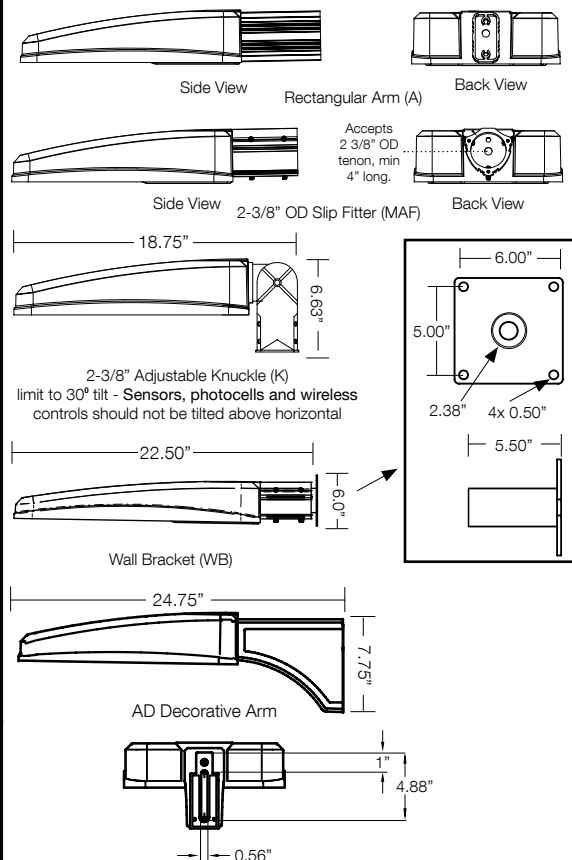
Att. V



DIMENSIONS



MOUNTING OPTIONS



CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only



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ORDERING INFORMATION ORDERING EXAMPLE: VPS/24L-55/4K7/4W/UNV/A/DBT/7PR-TL/GENI-04/BC

VPS									
SERIES	LED ENGINE	CCT/CRI ⁷	ROTATION	VOLTAGE	COLOR	OPTIONS			
VPS Viper	24L-55 55W, LED array	3K7 3000K, 70 CRI	Leave blank for no rotation	UNV 120-277V	BL Black Textured	F Fusing			
	36L-65 65W, LED array	4K7 4000K, 70 CRI	L⁵ Optic rotation left	120 120V	DB Dark Bronze Textured	BSP Bird Spikes			
	36L-80 80W, LED array	5K7 5000K, 70 CRI	R⁵ Optic rotation right	208 208V	GYS Light Gray Smooth	BC Backshield (available for FR, 2, 3, 4, 4W Optics)			
	48L-110 110W, LED array	DISTRIBUTION		240 240V	PS Platinum Silver Smooth				
	60L-136 136W, LED array			277 277V	WH White Textured				
				347 347V	CC Custom Color				
				480 480V					

			MOUNTING	CONTROL OPTIONS
			A Rectangular Arm (formerly RA) for square or round pole	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)
			MAF Mast Arm Fitter (formerly SF2) for 2-3/8" OD horizontal arm	7PR-SC 7-Pin Receptacle w/Shorting Cap
			K Knuckle (formerly PK2) limit to 45° tilt or 2-3/8" OD horizontal arm or vertical tenon	7PR-TL 7-Pin Receptacle w/Twist Lock photo control
			WB Wall Bracket	SCP/_F^{1,2,6} Programmable Occupancy Sensor w/ daylight control (120-277 volts only)
			AD Universal Arm for square pole	GENI-XX³ ENERGENI
			AD3 Universal Arm for 2.4"-4.1" round pole	SWP^{1,4} SiteSync Pre-Commission
			AD4 Universal Arm for 4.2"-5.3" round pole	SWPM^{1,2,4} SiteSync Pre-Comm w/ Sensor
			AD5 Universal Arm for 5.5"-5.9" round pole	
			AD6 Universal Arm for 6.0"-6.5" round pole	

HOUSE SIDE SHIELD ACCESSORIES

- HSS/VP-S/90-FB/XXX** 90° shield front or back
HSS/VP-S/90-LR/XXX 90° shield left or right
HSS/VP-S/270-FB/XXX 270° shield front or back
HSS/VP-S/270-LR/XXX 270° shield left or right
HSS/VP-S/360/XXX Full shield

(Replace XXX with notation for desired finish color)
(Refer to page 5 for shield images)

MOUNTING ACCESSORIES

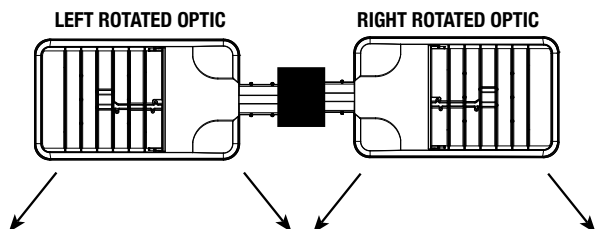
- VPL-AD-RPA3** 2.4"-4.1" Round Pole Adapter for AD arm
VPL-AD-RPA4 4.2"-5.3" Round Pole Adapter for AD arm
VPL-AD-RPA5 5.5"-5.9" Round Pole Adapter for AD arm
VPL-AD-RPA6 6.0"-6.5" Round Pole Adapter for AD arm

- ¹ Not available with other wireless control or sensor options
² Specify mounting height; 8-8' or less, 40-9' to 40'
³ Specify routine setting code (example GENI-04). See ENERGENI brochure and instructions for setting table and options. Not available with sensor or SiteSync options.
⁴ Specify group and zone at time of order. See www.hubbellighting.com/sitesync for further details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
⁵ Only available with 1A, 2, 3, 4, 4W and 5R distributions
⁶ Order at least one SCP-REMOTE per project location to program and control the occupancy sensor.
⁷ This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://cdn.beaconproducts.com/content/products/specs/specs_files/Viper_Small_LED_turtle_spec_sheet.pdf

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.hubbell-automation.com/products/sitesync/ or contact Hubbell Lighting tech support at (800) 345-4928.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VPS/24L-55/4K7/3/UNV/A/DBT/SWP/ SiteSync only
VPS/24L-55/4K7/3/UNV/A/DBT/SWPM-40F/ SiteSync with Motion Control



Accessories and Services (Ordered Separately)

Catalog Number	Description
SWUSB*	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
SWTAB*	Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node.
SWBRG	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested.
SCP-REMOTE	Remote Control for SCP/_F option. Order at least one per project to program and control
SW7PR*	SiteSync 7 Pin on fixture module On/Off/Dim, Daylight Sensor 120-480VAC

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ Available as a SiteSync retrofit solution for fixtures with an existing 7pin receptacle.

Hubbell Control Solutions - Accessories (sold separately)

Catalog Number	Description	HCS System
NXOFM-1R1D-UNV	On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120-480VAC	NX Distributed Intelligence™
WIR-RME-L	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC	wiSCAPE® Lighting Control

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

SiteSync 7-Pin Module



- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does not interface with occupancy sensors



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PERFORMANCE DATA

# LED'S	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
24	700 mA	55W	FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
			2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5805	108	1	0	2	5921	110	1	0	2	5282	98	1	0	2
			5QM	6022	112	2	0	1	6145	114	2	0	1	5499	102	2	0	1
			5R	6063	112	3	0	3	6187	115	3	0	3	5536	103	3	0	3
			5W	5908	109	3	0	1	6028	112	3	0	1	5908	102	3	0	1
			TC	6183	115	1	0	1	6309	118	1	0	1	5645	105	1	0	1
36	560 mA	65W	FR	7864	121	1	0	1	8041	124	1	0	1	7189	111	1	0	1
			2	7586	117	1	0	2	7757	119	1	0	2	6934	107	1	0	2
			3	7441	114	1	0	2	7609	117	1	0	2	6802	105	1	0	2
			4	7317	110	1	0	2	7482	112	1	0	2	6688	100	1	0	2
			4W	7325	113	1	0	2	7490	115	1	0	2	6696	103	1	0	2
			5QM	7450	115	3	0	1	7618	117	3	0	1	6810	105	3	0	1
			5R	7501	115	3	0	3	7670	118	3	0	3	6857	105	3	0	3
			5W	7309	112	3	0	2	7473	115	3	0	2	6681	103	3	0	1
			TC	7925	115	1	0	1	8100	118	1	0	1	7189	111	1	0	1
36	700 mA	80W	FR	9535	118	1	0	1	9730	120	1	0	1	8706	107	1	0	1
			2	9197	114	1	0	2	9385	116	1	0	2	8398	104	1	0	2
			3	9022	111	1	0	2	9206	114	1	0	2	8238	102	1	0	2
			4	8871	110	1	0	2	9052	112	1	0	2	8100	100	1	0	2
			4W	8707	108	1	0	2	8881	110	1	0	2	7923	98	1	0	2
			5QM	9033	112	3	0	1	9217	114	3	0	1	8248	102	3	0	1
			5R	9095	112	3	0	3	9280	115	3	0	3	8304	103	3	0	3
			5W	8861	109	3	0	2	9043	112	3	0	2	8092	100	3	0	2
			TC	9275	115	1	0	1	9464	118	1	0	1	8468	105	1	0	1
48	700 mA	110W	FR	12713	118	1	0	1	12973	120	2	0	1	11608	107	1	0	1
			2	12263	114	2	0	2	12513	116	2	0	2	11197	104	2	0	2
			3	12029	111	2	0	2	11275	114	2	0	2	10984	102	1	0	2
			4	11828	110	1	0	3	12069	112	1	0	3	10800	100	1	0	2
			4W	11609	108	1	0	3	11841	110	1	0	3	10564	98	1	0	3
			5QM	12044	112	3	0	2	12290	114	3	0	2	10997	102	3	0	1
			5R	12126	112	3	0	3	12374	115	3	0	3	11072	103	3	0	3
			5W	12126	109	4	0	2	12057	112	4	0	2	10789	100	4	0	2
			TC	12366	115	1	0	2	12619	118	1	0	2	11290	105	1	0	2
60	700 mA	136W	FR	15891	117	2	0	2	16216	120	2	0	2	14511	107	2	0	1
			2	15329	113	2	0	2	15642	116	2	0	2	13997	103	2	0	2
			3	15037	111	2	0	3	15344	113	2	0	3	13730	101	2	0	3
			4	14784	109	1	0	3	15086	111	1	0	3	13500	100	1	0	3
			4W	14511	108	2	0	4	14802	110	2	0	4	13205	98	2	0	3
			5QM	15055	111	3	0	2	15362	114	3	0	2	13747	102	3	0	2
			5R	15158	112	4	0	4	15469	114	4	0	4	13841	102	4	0	4
			5W	14781	109	4	0	2	15083	111	4	0	2	13495	100	4	0	2
			TC	15458	115	1	0	2	15834	118	1	0	2	14113	105	1	0	2

PHOTOMETRICS

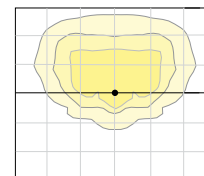
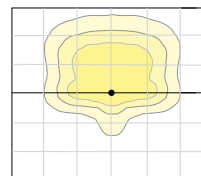
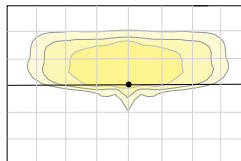
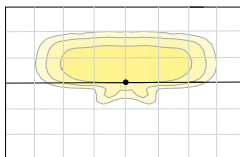
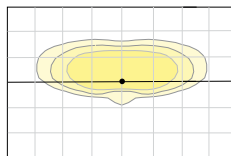
Type FR - Front Row/Auto Optic

Type 2

Type 3

Type 4

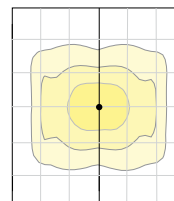
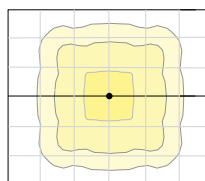
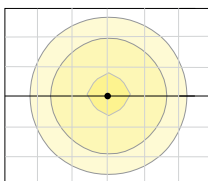
Type 4W



Type 5W

Type 5QM

Type 5R



*Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-use environment and application.

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	2	700 mA	120	55	0.5
			277		0.2
			347		0.2
			480		0.1
36	1	560 mA	120	65	0.65
			277		0.28
			347		0.22
			480		0.16
	1	700 mA	120	80	0.7
			277		0.3
			347		0.2
			480		0.2
48	1	700 mA	120	110	0.9
			277		0.4
			347		0.3
			480		0.2
60	1	700 mA	120	136	1.1
			277		0.5
			347		0.4
			480		0.3

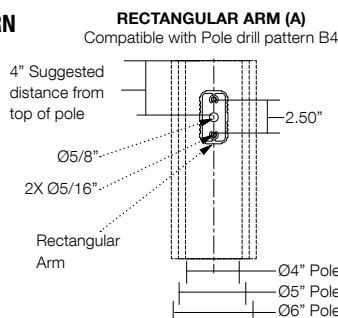
PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	0	25,000	50,000	TM-21-11 60,000	100,000	Calculated L70 (HOURS)
25°C / 77°C	1.00	0.97	0.95	0.95	0.92	>377,000

¹ Projected per IESNA TM-21-11

Data references the extrapolated performance projections for the base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

DRILL PATTERN



EPA

Config.	EPA	Config.	EPA
1	.67	3 @ 120°	1.68
2 @ 90°	1.06	3 @ 90°	1.73
2 @ 180°	1.34	4 @ 90°	2.12

TENON TOP POLE BRACKET ACCESSORIES (Order Separately)

(2 3/8" OD tenon)

Catalog Number	Description
SETAVP-XX	Square tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
RETAVP-XX	Round tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
TETAVP-XX	Hexagonal tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
SETA2XX	Square tenon adapter (4 at 90°) for AD - Universal Arm mounting option only
RETA2XX	Round tenon adapter (4 at 90°) for AD3 - Universal Arm mounting option only
TETA2XX	Hexagonal tenon adapter (3 at 120°) for AD - Universal Arm mounting option only

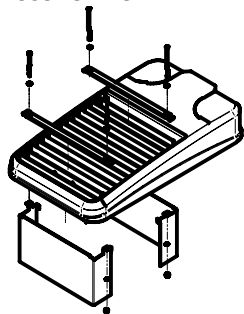


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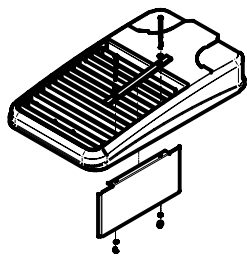


HUBBELL
Lighting

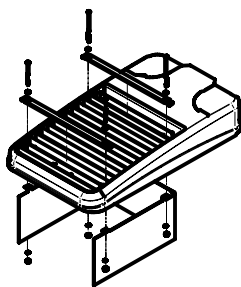
HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES



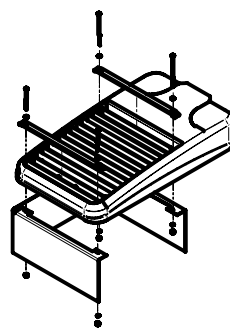
HSS/VP-S/90-FB/XXX
90° shield front or back
(2 shields shown)



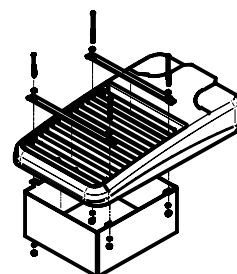
HSS/VP-S/90-LR/XXX
90° shield left or right
(1 shield shown in left orientation)



HSS/VP-S/270-FB/XXX
270° shield front or back
(1 shield shown in back orientation)

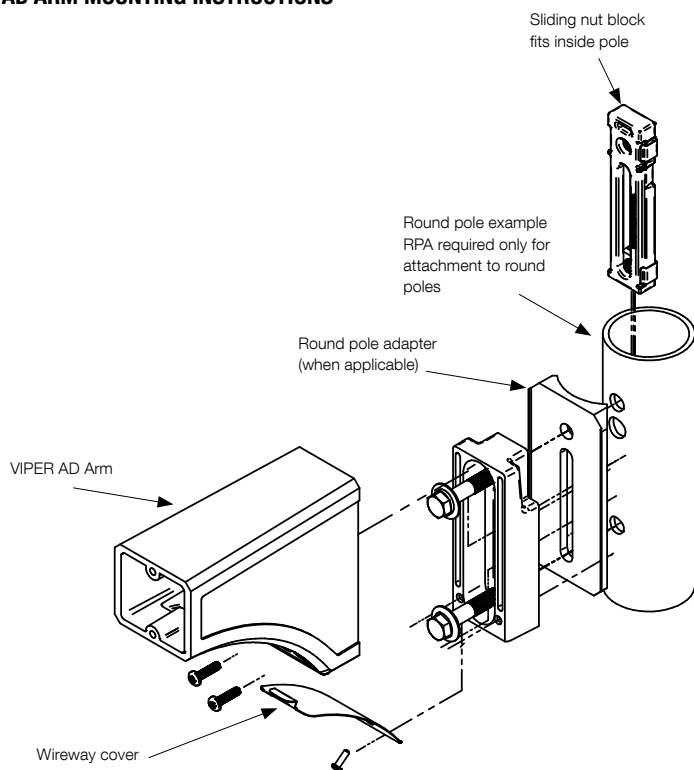


HSS/VP-S/270-LR/XXX
270° shield left or right
(1 shield shown in right orientation)



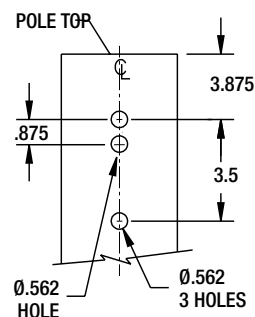
HSS/VP-S/360/XXX
Full shield (1 shield shown)

AD ARM MOUNTING INSTRUCTIONS



DECORATIVE ARM (AD)

Compatible with pole drill pattern S2



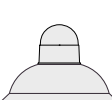
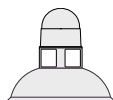
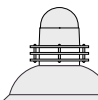
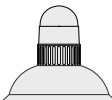
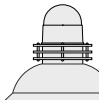
FEATURES

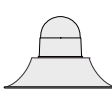
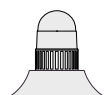
- DLC qualified
- Up to 1000' wireless communication
- Motion sensing up to 40' mounting height
- Superior BUG ratings
- Types II, III, IV, V and custom distributions
- IP66, 3G vibration housing
- 20kV/10kA surge suppression
- 2700 – 5000K CCT
- >560 nm Amber
- Custom lumen packages
- Integral thermal protection
- 0-10V dimmable
- 13 standard powder coat finishes

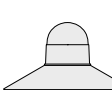
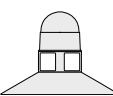


SPECIFICATIONS

					
ANGLED HOOD CONFIGURATION	UCM-ANG	UCM-WND-ANG	UCM-SR-ANG	UCM-VSL-ANG	UCM-LUM-ANG
DIAMETER	20"/508mm	20"/508mm	20"/508mm	20"/508mm	20"/508mm
HEIGHT	14.7"/373mm	20.5"/520mm	20.7"/526mm	20.5"/521mm	20.6"/523mm
WEIGHT	18.25 lbs/8.28kg	21.75 lbs/9.86kg	25 lbs/11.3kg	22.25 lbs/10.1kg	24.25 lbs/11kg
EPA	.60	.72	.74	.72	.74

					
BELL HOOD CONFIGURATION	UCM-BEL	UCM-WND-BEL	UCM-SR-BEL	UCM-VSL-BEL	UCM-LUM-BEL
DIAMETER	24"/610mm	24"/610mm	24"/610mm	24"/610mm	24"/610mm
HEIGHT	15.8"/401mm	21.4"/543mm	21.6"/549mm	19.37"/492mm	21.5"/546mm
WEIGHT	20.25 lbs/9.2kg	23.5 lbs/10.6kg	27 lbs/12.25kg	24.25 lbs/11kg	26 lbs/11.8kg
EPA	.73	.85	.87	.85	.85

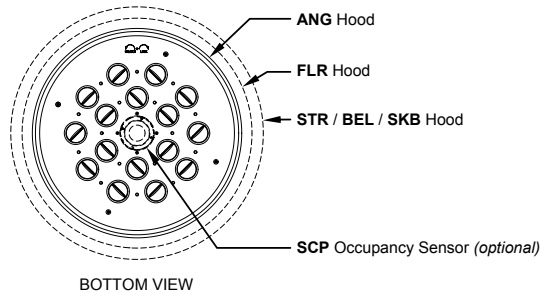
					
FLARE HOOD CONFIGURATION	UCM-FLR	UCM-WND-FLR	UCM-SR-FLR	UCM-VSL-FLR	UCM-LUM-FLR
DIAMETER	22"/559mm	22"/559mm	22"/559mm	22"/559mm	22"/559mm
HEIGHT	14.5"/368mm	19.8"/503mm	20.1"/510mm	19.8"/503mm	20"/508mm
WEIGHT	18.5 lbs/8.4kg	21.75 lbs/9.87kg	25.25 lbs/10.1kg	21.75 lbs/9.86kg	24.25 lbs/11kg
EPA	.53	.65	.67	.65	.67

					
STRAIGHT HOOD CONFIGURATION	UCM-STR	UCM-WND-STR	UCM-SR-STR	UCM-VSL-STR	UCM-LUM-STR
DIAMETER	24"/610mm	24"/610mm	24"/610mm	24"/610mm	24"/610mm
HEIGHT	14"/355mm	19.8"/503mm	20"/508mm	19.8"/503mm	19.9"/505mm
WEIGHT	20 lbs/9.07kg	23.25 lbs/10.55kg	26.75 lbs/12.13kg	23.75 lbs/10.77kg	25.75 lbs/11.68kg
EPA	.59	.71	.73	.71	.73

					
SKIRTED BELL HOOD CONFIGURATION	UCM-SKB	UCM-WND-SKB	UCM-SR-SKB	UCM-VSL-SKB	UCM-LUM-SKB
DIAMETER	24"/610mm	24"/610mm	24"/610mm	24"/610mm	24"/610mm
HEIGHT	19.7"/500mm	23.9"/607mm	24.2"/615mm	23.9"/607mm	24.1"/612mm
WEIGHT	20.5 lbs/9.3kg	23.75 lbs/10.77kg	27 lbs/12.25kg	24.25 lbs/11kg	26.25 lbs/11.9kg
EPA	.90	1.03	1.05	1.03	1.05



3000K unlit or 3000K without luminous element only



ORDERING INFORMATION

1	2	3	4	5	6	7	8	9	10
UCM									
MODEL	Hood	Distribution	CCT	Lumen Package	Finish	Options	Control	Voltage	Mounting

1. MODEL

UCM	Universe medium without luminous element
UCM-WND	Universe medium with luminous window
UCM-SR	Universe medium with luminous solid rings
UCM-VSL	Universe medium with luminous vertical slots
UCM-LUM	Universe medium with luminous rings

2. HOOD (May choose one)

FLR	Flared hood
FLR-STSS	Flared hood in natural brushed stainless steel
FLR-COP	Flared hood in natural brushed copper
ANG	Angled hood
ANG-STSS	Angled hood in natural brushed stainless steel
ANG-COP	Angled hood in natural brushed copper
STR	Straight hood
STR-STSS	Straight hood in natural brushed stainless steel
STR-COP	Straight hood in natural brushed copper
BEL	Bell hood
BEL-STSS	Bell hood in natural brushed stainless steel
BEL-COP	Bell hood in natural brushed copper
SKB	Skirted bell hood
SKB-STSS	Skirted bell hood in natural brushed stainless steel
SKB-COP	Skirted bell hood in natural brushed copper

3. DISTRIBUTION

MicroCore Precision aimed optics

T2-32LED	Type 2
T3-32LED	Type 3
T4-32LED	Type 4
T5-32LED	Type 5
TX-32LED	Custom ¹

4. COLOR TEMPERATURE

3K	3000K
4K	4000K
5K	5000K
27K	2700K ¹
35K	3500K ¹
AM	>560 nm monochromatic amber ¹

5. LUMEN PACKAGE

700	71 watts
450	48 watts
XMA	Custom wattage or drive current ¹

6. FINISH

Standard Color	
WH	Arctic White
BL	Black
BLT	Matte Black
DB	Dark Bronze
DGN	Dark Green
TT	Titanium
WDB	Weathered Bronze
MDB	Bronze Metallic
VBU	Verde Blue
CRT	Corten
MAL	Matte Aluminum
MG	Medium Grey
AGN	Antique Green
LG	Light Grey
Premium Color	
SHK	Shamrock
SPP	Salt and Pepper
SFM	Seafoam
WCP	Weathered Copper
RAL	RAL 4 digit Color
CUSTOM	Custom Color

7. OPTIONS (May choose as noted)

FTG	Flat clear glass lens ³
FLD	Flat diffused glass lens ³
SAG	Sag clear glass lens ^{1,3}
HSS	House Side shield for Type 4
SLC	Unlit (luminous) element
R80	80 CRI minimum ¹
BLU	Blue inner lens
RD	Red inner lens
GRN	Green inner lens

8. CONTROLS – (May choose as noted)

WIR	wiScape connectivity
WIRSC	wiScape connectivity, integral motion sensor
SCP	Integral photo-control and motion sensor ⁴
SCPREMOTE	Handheld commissioning tool ⁴

9. VOLTAGE

120-277	120-277 VAC input
347	347 VAC input
480	480 VAC input

9. MOUNTING POLE MOUNT

SLA2	SLA3	SLA4
SLA4-2	SLA7	SLA7-2
SLA7(5)	SLA7(5)-2	SLA8D
SLA9	SLA9-2	SLA10
SLA10-2	SLA16	SLA16-2
SLA17	SLA17-2	SLA17(5)
SLA17(5)-2	SLA18	SLA18-2
SLA20	SLA20-2	SLA20A
SLA20A-2	SLA20B	SLA20B-2
SLA20C	SLA20C-2	SLA20D
SLA20D-2	SLA22D	SLA24
SLA24-2	SLA24(5)	SLA24(5)-2
TRA4	TRA7	TRA7-2
TRA8	TRA8-2	TRA9
TRA9-2		

WALL MOUNT

WMA4	WMA5	WMA6
WMA8	WMA9D	WMA10
WMA11	WMA12	WMA16
WMA17	WMA18	WMA20
WMA22D	WMA24	WMA37
WMA38	WMA39	

PENDANT MOUNT PMS

¹ Contact factory

² Not for AM color temperature

³ Not for WIR, WIRSC or SCP control options

⁴ Handheld commissioning tool is required to separately configure or adjust any number of SCP sensors.

LUMINAIRE PERFORMANCE Actual measured performance to be within +/-3% of the stated values

Configuration				Ordering Code	32LED-5K-700					32LED-4K-700					32LED-3K-700					
System Watts	Luminous Element	Lens	Distribution		Bright White (5000K)					Neutral White (4000K)					Warm White (3000K)					
					Delivered Lumens	Efficacy (Lm/W)	B	U	G	Delivered Lumens	Efficacy (Lm/W)	B	U	G	Delivered Lumens	Efficacy (Lm/W)	B	U	G	
71	(None)	(None)	Type II	UCM-[HOOD]-T2	6579	93	2	1	2	6561	92	2	1	2	6186	87	2	1	2	
			Type III	UCM-[HOOD]-T3	6560	92	1	1	2	6542	92	1	1	2	6168	87	1	1	2	
			Type IV	UCM-[HOOD]-T4	6467	91	1	1	2	6449	91	1	1	2	6081	86	1	1	2	
			Type V	UCM-[HOOD]-T5	6623	93	3	1	2	6605	93	3	1	2	6227	88	3	1	2	
		Clear Flat	Type IV, HSS	UCM-[HOOD]-T4-(...-HSS)	4781	67	0	1	2	4768	67	0	1	2	4495	63	0	1	2	
			Type II	UCM-[HOOD]-T2-(...-CLR)	5836	82	2	1	2	5820	82	2	1	2	5487	77	2	1	2	
			Type III	UCM-[HOOD]-T3-(...-CLR)	5819	82	1	1	2	5803	82	1	1	2	5471	77	1	1	2	
			Type IV	UCM-[HOOD]-T4-(...-CLR)	5737	81	1	1	1	5721	81	1	1	1	5394	76	1	1	1	
		Diffused Flat	Type V	UCM-[HOOD]-T5-(...-CLR)	5875	83	3	1	1	5859	83	3	1	1	5524	78	3	1	1	
			Type II	UCM-[HOOD]-T2-(...-FLD)	4917	69	2	1	1	4904	69	2	1	1	4623	65	2	1	1	
			Type III	UCM-[HOOD]-T3-(...-FLD)	4903	69	1	1	1	4889	69	1	1	1	4610	65	1	1	1	
			Type IV	UCM-[HOOD]-T4-(...-FLD)	4833	68	1	1	1	4820	68	1	1	1	4544	64	1	1	1	
74	WND 4 Windows	(None)	Type V	UCM-[HOOD]-T5-(...-FLD)	4950	70	2	0	1	4936	70	2	0	1	4654	66	2	0	1	
			Type II	UCM-WND-[HOOD]-T2	6713	91	2	1	2	6695	90	2	1	2	6312	85	2	1	2	
			Type III	UCM-WND-[HOOD]-T3	6694	90	1	1	2	6675	90	1	1	2	6294	85	1	1	2	
			Type IV	UCM-WND-[HOOD]-T4	6599	89	1	1	2	6581	89	1	1	2	6205	84	1	1	2	
			Type V	UCM-WND-[HOOD]-T5	6758	91	3	2	2	6739	91	3	2	2	6354	86	3	2	2	
		Type IV, HSS	UCM-WND-[HOOD]-T4-(...-HSS)	4878	66	0	1	2	4865	66	0	1	2	4587	62	0	1	2		
			Type II	UCM-WND-[HOOD]-T2-(...-CLR)	5955	80	2	1	2	5939	80	2	1	2	5599	76	2	1	2	
			Type III	UCM-WND-[HOOD]-T3-(...-CLR)	5938	80	1	1	2	5922	80	1	1	2	5583	75	1	1	2	
			Type IV	UCM-WND-[HOOD]-T4-(...-CLR)	5854	79	1	1	2	5838	79	1	1	2	5504	74	1	1	2	
		Type V	UCM-WND-[HOOD]-T5-(...-CLR)	5995	81	3	2	1	5979	81	3	2	1	5637	76	3	2	1		
			Type II	UCM-WND-[HOOD]-T2-(...-FLD)	5017	68	2	1	1	5004	68	2	1	1	4718	64	2	1	1	
			Type III	UCM-WND-[HOOD]-T3-(...-FLD)	5003	68	1	1	1	4989	67	1	1	1	4704	64	1	1	1	
			Type IV	UCM-WND-[HOOD]-T4-(...-FLD)	4932	67	1	1	1	4918	66	1	1	1	4637	63	1	1	1	
		Type V	UCM-WND-[HOOD]-T5-(...-FLD)	5051	68	2	2	1	5037	68	2	2	1	4749	64	2	2	1		
			Diffused Flat	Type II	UCM-WND-[HOOD]-T2-(...-CLR)	5955	80	2	1	2	5939	80	2	1	2	5599	76	2	1	2
				Type III	UCM-WND-[HOOD]-T3-(...-CLR)	5938	80	1	1	2	5922	80	1	1	2	5583	75	1	1	2
				Type IV	UCM-WND-[HOOD]-T4-(...-CLR)	5854	79	1	1	2	5838	79	1	1	2	5504	74	1	1	2
		Type V		UCM-WND-[HOOD]-T5-(...-CLR)	5995	81	3	2	1	5979	81	3	2	1	5637	76	3	2	1	
		SR Solid Rings	(None)	Type II	UCM-WND-[HOOD]-T2-(...-FLD)	5017	68	2	1	1	5004	68	2	1	1	4718	64	2	1	1
				Type III	UCM-WND-[HOOD]-T3-(...-FLD)	5003	68	1	1	1	4989	67	1	1	1	4704	64	1	1	1
				Type IV	UCM-WND-[HOOD]-T4-(...-FLD)	4932	67	1	1	1	4918	66	1	1	1	4637	63	1	1	1
				Type V	UCM-WND-[HOOD]-T5-(...-FLD)	5051	68	2	2	1	5037	68	2	2	1	4749	64	2	2	1
				Type II	UCM-SR-[HOOD]-T2	6610	89	2	1	2	6592	89	2	1	2	6215	84	2	1	2
			Type III	UCM-SR-[HOOD]-T3	6591	89	1	0	2	6573	89	1	0	2	6197	84	1	0	2	
	Type IV			UCM-SR-[HOOD]-T4	6498	88	1	1	2	6480	88	1	1	2	6109	83	1	1	2	
	Type V			UCM-SR-[HOOD]-T5	6654	90	3	1	2	6636	90	3	1	2	6257	85	3	1	2	
	Type IV, HSS			UCM-SR-[HOOD]-T4-(...-HSS)	4804	65	0	1	2	4790	65	0	1	2	4517	61	0	1	2	
	Clear Flat		Type II	UCM-SR-[HOOD]-T2-(...-CLR)	5864	79	2	1	2	5848	79	2	1	2	5513	75	2	1	2	
			Type III	UCM-SR-[HOOD]-T3-(...-CLR)	5847	79	1	1	2	5831	79	1	1	2	5497	74	1	1	2	
			Type IV	UCM-SR-[HOOD]-T4-(...-CLR)	5764	78	1	1	1	5748	78	1	1	1	5420	73	1	1	1	
			Type V	UCM-SR-[HOOD]-T5-(...-CLR)	5903	80	3	1	1	5887	80	3	1	1	5550	75	3	1	1	
	Diffused Flat		Type II	UCM-SR-[HOOD]-T2-(...-FLD)	4940	67	2	1	1	4927	67	2	1	1	4645	63	2	1	1	
			Type III	UCM-SR-[HOOD]-T3-(...-FLD)	4926	67	1	1	1	4913	66	1	1	1	4632	63	1	1	1	
			Type IV	UCM-SR-[HOOD]-T4-(...-FLD)	4856	66	1	1	1	4843	65	1	1	1	4566	62	1	1	1	
			Type V	UCM-SR-[HOOD]-T5-(...-FLD)	4973	67	2	1	1	4960	67	2	1	1	4676	63	2	1	1	
	VSL Vertical Slots		(None)	Type II	UCM-SR-[HOOD]-T2-(...-FLD)	4940	67	2	1	1	4927	67	2	1	1	4645	63	2	1	1
				Type III	UCM-SR-[HOOD]-T3-(...-FLD)	4926	67	1	1	1	4913	66	1	1	1	4632	63	1	1	1
				Type IV	UCM-SR-[HOOD]-T4-(...-FLD)	4856	66	1	1	1	4843	65	1	1	1	4566	62	1	1	1
		Type V		UCM-SR-[HOOD]-T5-(...-FLD)	4973	67	2	1	1	4960	67	2	1	1	4676	63	2	1	1	
		Type II		UCM-VSL-[HOOD]-T2	6551	89	2	0	2	6533	88	2	0	2	6159	83	2	0	2	
		Type III	UCM-VSL-[HOOD]-T3	6532	88	1	1	2	6514	88	1	1	2	6142	83	1	1	2		
			Type IV	UCM-VSL-[HOOD]-T4	6439	87	1	1	2	6422	87	1	1	2	6055	82	1	1	2	
			Type V	UCM-VSL-[HOOD]-T5	6595	89	3	1	2	6577	89	3	1	2	6201	84	3	1	2	
			Type V, HSS	UCM-VSL-[HOOD]-T4-(...-HSS)	4761	64	0	1	2	4748	64	0	1	2	4476	60	0	1	2	
		Clear Flat	Type II	UCM-VSL-[HOOD]-T2-(...-CLR)	5811	79	2	1	2	5795	78	2	1	2	5464	74	2	1	2	
			Type III	UCM-VSL-[HOOD]-T3-(...-CLR)	5795	78	1	1	2	5779	78	1	1	2	5448	74	1	1	2	
			Type IV	UCM-VSL-[HOOD]-T4-(...-CLR)	5712	77	1	1	1	5697	77	1	1	1	5371	73	1	1	1	
			Type V	UCM-VSL-[HOOD]-T5-(...-CLR)	5850	79	3	1	1	5834	79	3	1	1	5501	74	3	1	1	
		Diffused Flat	Type II	UCM-VSL-[HOOD]-T2-(...-FLD)	4604	62	2	1	1	4588	66	2	1	1	4896	66	2	1	1	
			Type III	UCM-VSL-[HOOD]-T3-(...-FLD)	4590	62	1	1	1	4574	66	1	1	1	4882	66	1	1	1	
			Type IV	UCM-VSL-[HOOD]-T4-(...-FLD)	4525	61	1	1	1	4509	65	1	1	1	4813	65	1	1	1	
			Type V	UCM-VSL-[HOOD]-T5-(...-FLD)	4634	63	2	1	1	4618	66	2	1	1	4929	67	2	1	1	
LUM Luminous Rings		(None)	Type II	UCM-VSL-[HOOD]-T2-(...-FLD)	4604	62	2	1	1	4588	66	2	1	1	4896	66	2	1	1	
	Type III		UCM-VSL-[HOOD]-T3-(...-FLD)	4590	62	1	1	1	4574	66	1	1	1	4882	66	1	1	1		
	Type IV		UCM-VSL-[HOOD]-T4-(...-FLD)	4525	61	1	1	1	4509	65	1	1	1	4813	65	1	1	1		
	Type V		UCM-VSL-[HOOD]-T5-(...-FLD)	4634	63	2	1	1	4618	66	2	1	1	4929	67	2	1	1		
	Type II		UCM-LUM-[HOOD]-T2	6670	90	2	1	2	6652	90	2	1	2	6271	85	2	1	2		
	Type III	UCM-LUM-[HOOD]-T3	6651	90	1	0	2	6633	90	1	0	2	6253	85	1	0	2			
		Type IV	UCM-LUM-[HOOD]-T4	6557	89	1	1	2	6539	88	1	1	2	6165	83	1	1	2		
		Type V	UCM-LUM-[HOOD]-T5	6715	91	3	1	2	6696	90	3	1	2	6314	85	3	1	2		
		Type V, HSS	UCM-LUM-[HOOD]-T4-(...-HSS)	4847	66	0	1	2	4834	65	0	1	2	4558	62	0	1	2		
	Clear Flat	Type II	UCM-LUM-[HOOD]-T2-(...-CLR)	5917	80	2	1	2	5901	80	2	1	2	5563	75	2	1	2		
		Type III	UCM-LUM-[HOOD]-T3-(...-CLR)	5900	80	1	1	2	5883	80	1	1	2	5547	75	1	1	2		
		Type IV	UCM-LUM-[HOOD]-T4-(...-CLR)	5816	79	1	1	2	5800	78	1	1	2	5468	74	1	1	2		
Type V		UCM-LUM-[HOOD]-T5-(...-CLR)	5956	80	3	1	1	5940	80	3	1	1	5600	76	3	1	1			
Diffused Flat	Type II	UCM-LUM-[HOOD]-T2-(...-FLD)	4985	67	2	1	1	4971	67	2	1	1	4687	63	2	1	1			
	Type III	UCM-LUM-[HOOD]-T3-(...-FLD)	4971	67	1	1	1	4957	67	1	1	1	4957	67	1	1	1			
	Type IV	UCM-LUM-[HOOD]-T4-(...-FLD)	4900	66	1	1	1	4887	66	1	1	1	4607	62	1	1	1			
	Type V	UCM-LUM-[HOOD]-T5-(...-FLD)	5018	68	2	1	1	5005	68	2	1	1	4719	64	2	1	1			

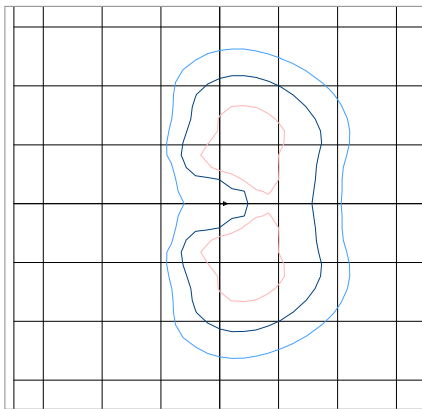
LUMINAIRE PERFORMANCE (CONTINUED) Actual measured performance to be within +/-3% of the stated values

Configuration				Ordering Code	32LED-5K-700					32LED-4K-700					32LED-3K-700					
System Watts	Luminous Element	Lens	Distribution		Bright White (5000K)					Neutral White (4000K)					Warm White (3000K)					
					Delivered Lumens	Efficacy (Lm/W)	B	U	G	Delivered Lumens	Efficacy (Lm/W)	B	U	G	Delivered Lumens	Efficacy (Lm/W)	B	U	G	
47	(None)	(None)	Type II	UCM-[HOOD]-T2	4844	103	2	0	2	4830	103	2	0	2	4607	98	2	0	2	
			Type III	UCM-[HOOD]-T3	4805	102	1	0	2	4791	102	1	0	2	4570	97	1	0	2	
			Type IV	UCM-[HOOD]-T4	4805	102	1	0	2	4791	102	1	0	2	4570	97	1	0	2	
			Type V	UCM-[HOOD]-T5	4839	103	3	0	1	4825	103	3	0	1	4602	98	3	0	1	
		Clear Flat	Type IV, HSS	UCM-[HOOD]-T4-(-HSS)	3539	75	0	0	2	3529	75	0	0	2	3327	71	0	0	2	
			Type II	UCM-[HOOD]-T2-(-CLR)	4180	89	1	1	1	4168	89	1	1	1	3976	85	1	1	1	
			Type III	UCM-[HOOD]-T3-(-CLR)	4147	88	1	1	1	4135	88	1	1	1	3944	84	1	1	1	
			Type IV	UCM-[HOOD]-T4-(-CLR)	4147	88	1	1	1	4135	88	1	1	1	3944	84	1	1	1	
		Diffused Flat	Type V	UCM-[HOOD]-T5-(-CLR)	4176	89	2	0	1	4164	89	2	0	1	3972	85	2	0	1	
			Type II	UCM-[HOOD]-T2-(-FLD)	3376	72	1	1	1	3367	72	1	1	1	3211	68	1	1	1	
			Type III	UCM-[HOOD]-T3-(-FLD)	3349	71	1	1	1	3340	71	1	1	1	3185	68	1	1	1	
			Type IV	UCM-[HOOD]-T4-(-FLD)	3349	71	1	1	1	3340	71	1	1	1	3185	68	1	1	1	
49	WND 4 Windows	(None)	Type V	UCM-[HOOD]-T5-(-FLD)	3373	72	1	0	1	3363	72	1	0	1	3208	68	1	0	1	
			Type II	UCM-WND-[HOOD]-T2	4772	97	2	1	2	4758	97	2	1	2	4538	93	2	1	2	
			Type III	UCM-WND-[HOOD]-T3	4820	98	1	1	2	4806	98	1	1	2	4584	94	1	1	2	
			Type IV	UCM-WND-[HOOD]-T4	4792	98	1	1	2	4778	98	1	1	2	4558	93	1	1	2	
			Type V	UCM-WND-[HOOD]-T5	4783	98	3	2	2	4769	97	3	2	2	4549	93	3	2	2	
		Clear Flat	Type IV, HSS	UCM-WND-[HOOD]-T4-(-HSS)	3552	72	0	1	2	3542	72	0	1	2	3378	69	0	1	2	
			Type II	UCM-WND-[HOOD]-T2-(-CLR)	4269	87	1	1	1	4256	87	1	1	1	4060	83	1	1	1	
			Type III	UCM-WND-[HOOD]-T3-(-CLR)	4159	85	1	1	1	4147	85	1	1	1	3956	81	1	1	1	
			Type IV	UCM-WND-[HOOD]-T4-(-CLR)	3944	80	1	1	1	3932	80	1	1	1	3751	77	1	1	1	
			Type V	UCM-WND-[HOOD]-T5-(-CLR)	4235	86	1	2	1	4223	86	1	2	1	4028	82	1	2	1	
		Diffused Flat	Type II	UCM-WND-[HOOD]-T2-(-FLD)	3394	69	1	1	1	3384	69	1	1	1	3228	66	1	1	1	
			Type III	UCM-WND-[HOOD]-T3-(-FLD)	3425	70	1	1	1	3415	70	1	1	1	3257	66	1	1	1	
	Type IV		UCM-WND-[HOOD]-T4-(-FLD)	3335	68	1	1	1	3325	68	1	1	1	3171	65	1	1	1		
	SR Solid Rings	(None)	Type V	UCM-WND-[HOOD]-T5-(-FLD)	3450	70	2	1	1	3440	70	2	1	1	3281	67	2	1	1	
			Type II	UCM-SR-[HOOD]-T2	4716	96	2	1	2	4702	96	2	1	2	4485	92	2	1	2	
			Type III	UCM-SR-[HOOD]-T3	4763	97	1	1	2	4750	97	1	1	2	4530	92	1	1	2	
			Type IV	UCM-SR-[HOOD]-T4	4736	97	1	1	2	4722	96	1	1	2	4504	92	1	1	2	
			Type V	UCM-SR-[HOOD]-T5	4727	96	3	1	2	4713	96	3	1	2	4496	92	3	1	2	
		Clear Flat	Type IV, HSS	UCM-SR-[HOOD]-T4-(-HSS)	3537	72	0	1	2	3527	72	0	1	2	3364	69	0	1	2	
			Type II	UCM-SR-[HOOD]-T2-(-CLR)	4785	98	1	1	1	4771	97	1	1	1	4551	93	1	1	1	
			Type III	UCM-SR-[HOOD]-T3-(-CLR)	4663	95	1	1	1	4649	95	1	1	1	4435	91	1	1	1	
			Type IV	UCM-SR-[HOOD]-T4-(-CLR)	4421	90	1	1	1	4408	90	1	1	1	4205	86	1	1	1	
			Type V	UCM-SR-[HOOD]-T5-(-CLR)	4192	86	2	1	1	4180	85	2	1	1	3987	81	2	1	1	
		Diffused Flat	Type II	UCM-SR-[HOOD]-T2-(-FLD)	3364	69	1	1	1	3355	68	1	1	1	3200	65	1	1	1	
			Type III	UCM-SR-[HOOD]-T3-(-FLD)	3395	69	1	1	1	3385	69	1	1	1	3229	66	1	1	1	
			Type IV	UCM-SR-[HOOD]-T4-(-FLD)	3306	67	1	1	1	3296	67	1	1	1	3144	64	1	1	1	
		VSL Vertical Slots	(None)	Type V	UCM-SR-[HOOD]-T5-(-FLD)	3420	70	1	1	1	3410	70	1	1	1	3253	66	1	1	1
				Type II	UCM-VSL-[HOOD]-T2	4725	96	2	0	2	4711	96	2	0	2	4494	92	2	0	2
				Type III	UCM-VSL-[HOOD]-T3	4772	97	1	1	2	4759	97	1	1	2	4539	93	1	1	2
				Type IV	UCM-VSL-[HOOD]-T4	4745	97	1	1	2	4731	97	1	1	2	4513	92	1	1	2
				Type V	UCM-VSL-[HOOD]-T5	4736	97	3	0	2	4722	96	3	0	2	4504	92	3	0	2
			Clear Flat	Type V, HSS	UCM-VSL-[HOOD]-T4-(-HSS)	3562	73	0	1	2	3552	72	0	1	2	3388	69	0	1	2
				Type II	UCM-VSL-[HOOD]-T2-(-CLR)	4223	86	1	1	1	4210	86	1	1	1	4016	82	1	1	1
				Type III	UCM-VSL-[HOOD]-T3-(-CLR)	4114	84	1	1	1	4102	84	1	1	1	3913	80	1	1	1
				Type IV	UCM-VSL-[HOOD]-T4-(-CLR)	3901	80	1	1	1	3890	79	1	1	1	3710	76	1	1	1
				Type V	UCM-VSL-[HOOD]-T5-(-CLR)	4189	85	2	0	1	4177	85	2	0	1	3984	81	2	0	1
Diffused Flat			Type II	UCM-VSL-[HOOD]-T2-(-FLD)	3367	69	1	1	1	3358	69	1	1	1	3203	65	1	1	1	
	Type III		UCM-VSL-[HOOD]-T3-(-FLD)	3398	69	1	1	1	3388	69	1	1	1	3232	66	1	1	1		
	Type IV		UCM-VSL-[HOOD]-T4-(-FLD)	3308	68	1	1	1	3299	67	1	1	1	3147	64	1	1	1		
	Type V		UCM-VSL-[HOOD]-T5-(-FLD)	3423	70	1	0	1	3413	70	1	0	1	3256	66	1	0	1		
LUM Luminous Rings	(None)	Type II	UCM-LUM-[HOOD]-T2	4809	98	2	1	2	4795	98	2	1	2	4574	93	2	1	2		
		Type III	UCM-LUM-[HOOD]-T3	4646	95	1	0	2	4633	95	1	0	2	4419	90	1	0	2		
		Type IV	UCM-LUM-[HOOD]-T4	4701	96	1	1	2	4687	96	1	1	2	4471	91	1	1	2		
		Type V	UCM-LUM-[HOOD]-T5	4733	97	3	1	1	4719	96	3	1	1	4502	92	3	1	1		
		Type V, HSS	UCM-LUM-[HOOD]-T4-(-HSS)	3564	73	0	1	2	3554	73	0	1	2	3390	69	0	1	2		
	Clear Flat	Type II	UCM-LUM-[HOOD]-T2-(-CLR)	4207	86	1	1	1	4194	86	1	1	1	4001	82	1	1	1		
		Type III	UCM-LUM-[HOOD]-T3-(-CLR)	4131	84	1	1	1	4119	84	1	1	1	3929	80	1	1	1		
		Type IV	UCM-LUM-[HOOD]-T4-(-CLR)	3911	80	1	1	1	3900	80	1	1	1	3720	76	1	1	1		
		Type V	UCM-LUM-[HOOD]-T5-(-CLR)	4196	86	2	1	1	4184	85	2	1	1	3991	81	2	1	1		
	Diffused Flat	Type II	UCM-LUM-[HOOD]-T2-(-FLD)	3434	70	1	1	1	3424	70	1	1	1	3266	67	1	1	1		
		Type III	UCM-LUM-[HOOD]-T3-(-FLD)	3338	68	1	1	1	3328	68	1	1	1	3175	65	1	1	1		
		Type IV	UCM-LUM-[HOOD]-T4-(-FLD)	3166	65	1	1	1	3157	64	1	1	1	3012	61	1	1	1		
	Type V	UCM-LUM-[HOOD]-T5-(-FLD)	3418	70	1	1	1	3408	70	1	1	1	3251	66	1	1	1			

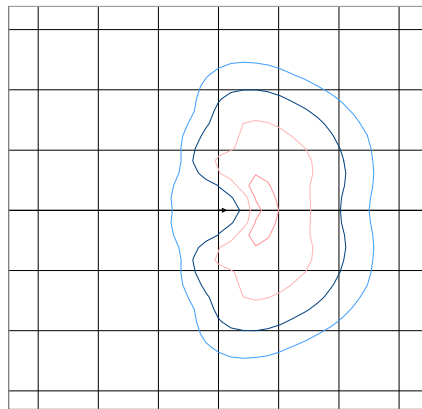
ELECTRICAL CHARACTERISTICS

Ordering Code		Line Input		Amps AC	LED Drive (mA)	System Watts (w)	Min. Power Factor	MAx THD (%)	Driver Operating Temp. Range (°C)	Inrush Current peak		Dimming	
MODEL	LUMEN PACKAGE	VAC	Hz							(A)	T@ 50% (µs)	Dimming Range (V)	Source / Sink Current (mA)
UCM UCM-(...SLC)	700	120-277	50 / 60	0.6 - 0.3	650	71	≥9	20	-30 TO +40	15 - 32	100	0 - 10	1
		347		0.2						32	100		
		480		0.2						32	100		
UCM-WND UCM-SR UCM-VSL UCM-LUM	700	120-277	50 / 60	0.6 - 0.3	450	74	≥9	21	-30 TO +40	15 - 32	100	0 - 10	1
		347		0.2						32	100		
		480		0.2						32	100		
UCM UCM-(...SLC)	450	120-277	50 / 60	0.4	650	47	≥9	22	-30 TO +40	15 - 32	100	0 - 10	1
		347		0.1						32	100		
		480		0.1						32	100		
UCM-WND UCM-SR UCM-VSL UCM-LUM	450	120-277	50 / 60	0.2	450	49	≥9	23	-30 TO +40	15 - 32	100	0 - 10	1
		347		0.1						32	100		
		480		0.1						32	100		

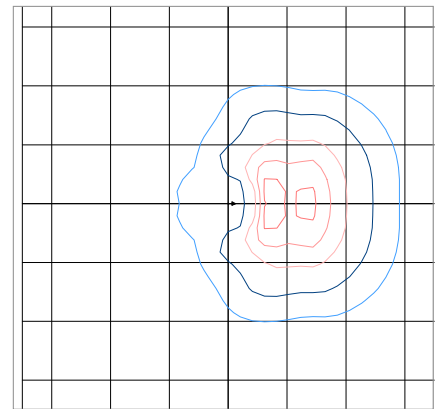
ISOLINE TEMPLATES 16' Mounting Height



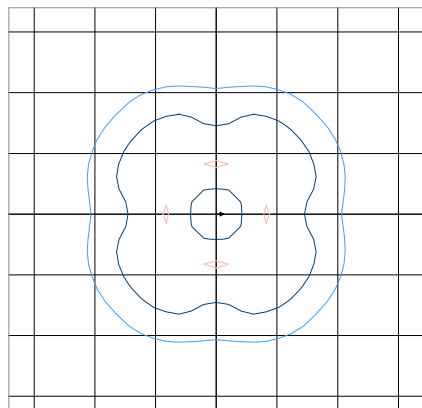
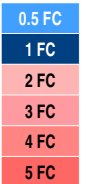
UCM-[HOOD]-T2-32LED-5K-700



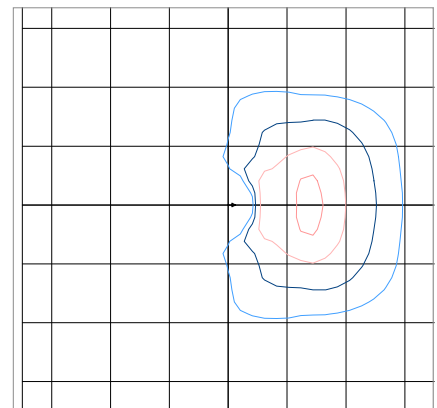
UCM-[HOOD]-T3-32LED-5K-700



UCM-[HOOD]-T4-32LED-5K-700



UCM-[HOOD]-T5-32LED-5K-700

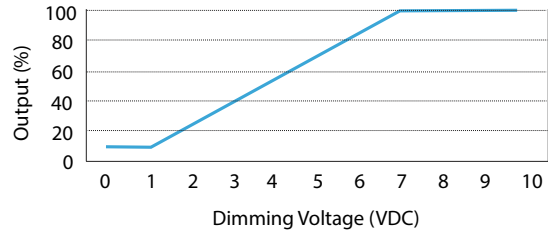


UCM-[HOOD]-T4-32LED-5K-700-HSS

TM-21 LIFETIME CALCULATION

Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
	15	25	50	60	100	
25	98%	97%	96%	96%	93%	>96Khrs.
40	96%	95%	93%	92%	89%	

DIMMING CURVE



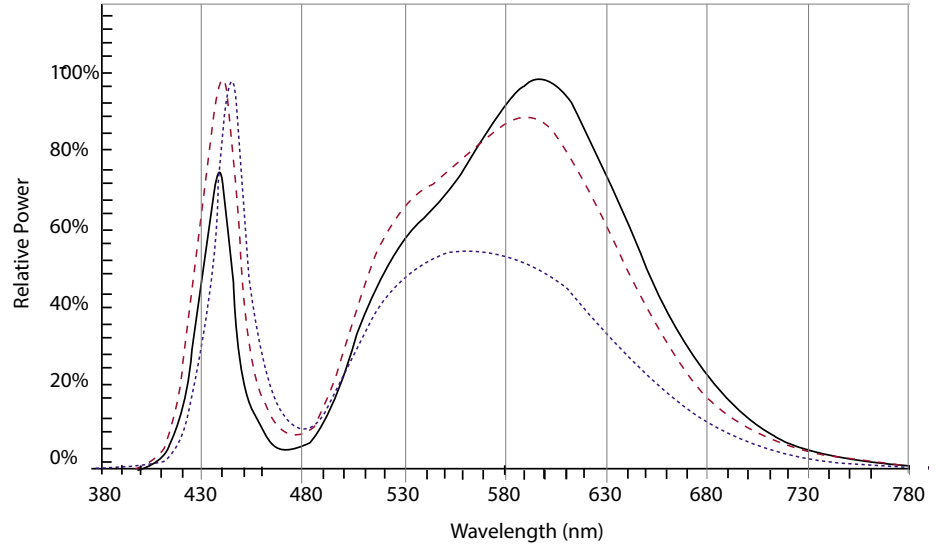
Note: Fixture does not dim to off, fixture dims to 10% minimum output.

COLOR CHARACTERISTICS

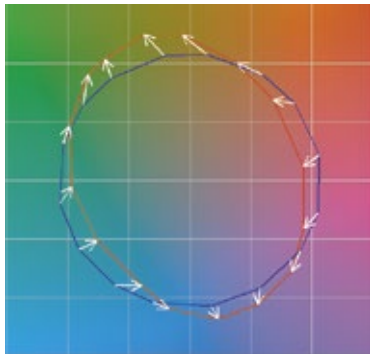
Value	Ordering Code		
	3K	4K	5K
Rf	69	69	71
Rg	99	99	98
CCT(K)	3122	3852	5020
Duv	0.001	0.0004	0.0005
CIE Ra	74	73	74

Note: TM-30 reported at the discrete LED level, not fixture level.

SPECTRAL POWER DISTRIBUTION COMPARISON

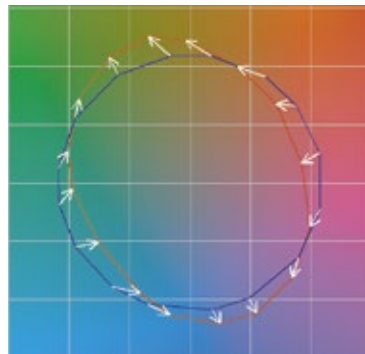


COLOR VECTOR GRAPHIC



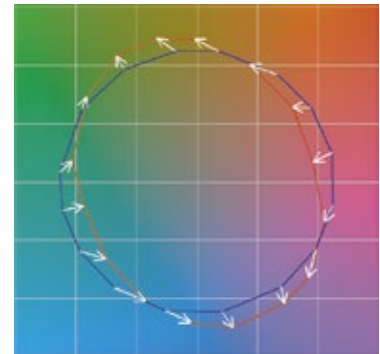
— Reference Illuminant — Test Source — Series1 — Series2
— Series3 — Series4 — Series5 — Series6
— Series7 — Series8 — Series9 — Series10

XX30



— Reference Illuminant — Test Source — Series1 — Series2
— Series3 — Series4 — Series5 — Series6
— Series7 — Series8 — Series9 — Series10

XX40



— Reference Illuminant — Test Source — Series1 — Series2
— Series3 — Series4 — Series5 — Series6
— Series7 — Series8 — Series9 — Series10

XX50

SENSOR DETECTION RANGE

		SENSOR MOUNTING HEIGHT											RATIO
		8'	10'	12'	14'	16'	18'	20'	25'	30'	35'	40'	
COVERAGE DIAMETER	SCP	20'	25'	30'	35'	40'	45'	50'	62.5'	75'	87.5'	100'	1:2.5
	WIRSC	16'	20'	24'	28'	32'	36'	50'	N/A	N/A	N/A	N/A	1:2

SPECIFICATIONS

HOUSING

- All housing components shall be die-cast aluminum 360 alloy, sealed with continuous silicone rubber gaskets.
- Hood and spacers shall be heavy gauge spun aluminum with hemmed edges for added rigidity.
- Luminous rings shall be clear acrylic with an internal lens.
- Standard configurations do not require a flat lens, optional lenses shall be tempered glass
- All internal and external hardware shall be stainless steel.
- Optical bezel finish shall match the luminaire housing.

OPTICAL

- Patent pending MicroCore™ LED modules shall independently aim each light emitting diode (LED) in both horizontal rotation and vertical tilt angle.
- LEDs shall be mounted to a metal printed circuit board assembly (PCBA) with a uniform conformal coating over the panel surface and electrical features.
- LED optics shall be clear injection molded PMMA acrylic.
- MicroCore™ PCBA and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket. IP66.
- Type 4 distribution with optional House Side Shield not available with clear or diffused glass lenses. Factory installed House Side Shield is optimized for Type 4 distribution and not recommended for use with Type 2 or 3 distribution and not available with type 5 distribution.

ELECTRICAL

- 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.
- Drivers shall be U.L. recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC.
- 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 NFTV and NTFTV.

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 fixtures.
- Motion sensor shall be flame retardant, UV resistant, impact resistant, recyclable polycarbonate.
- 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

PHOTOCELL / EGRESS ADAPTERS

- Adapter(s) shall slip over a 4"/100mm DIA. pole with the luminaire or arm slipping over the adapter to add a total of 4.5"/114mm to the overall height. Adapter(s) shall be prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard.
- Photocell adapter shall include an internal twist lock receptacle. Photocell by others.
- Egress adapter shall require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter shall have a socket that accepts miniature bi-pin MR16 lamps up to 50 watts, lamp by others.

SERVICING

- Luminaire shall have tool-less service access to the gear compartment. Driver and surge suppressor shall be mounted to a prewired tray with quick disconnects that may be removed from the gear compartment.

ARM MOUNTING

- Luminaire shall be attached to the arm assembly with three stainless steel bolts. The connection shall be sealed with a silicone compression gasket.
- Post top arms and brackets shall slip over a 4"/100mm O.D. or a 5"/127mm as configured and secured with six stainless steel set screws.
- Wall mounted arms and brackets shall require mounting hardware by others.

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 ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:
<http://www.hubbellighting.com/resources/warranty/>

DLC QUALIFIED PRODUCTS

Lumen Package	Luminous Element	CCT	ANG – ANGLED HOOD				
			NO LENS Standard	FTG Flat clear glass lens	FLD Flat diffused glass lens		
700	(None)	4K 4000K	UCM-ANG-T2-4K-32LED-700-120-277				
			UCM-ANG-T5-4K-32LED-700-120-277				
		5K 5000K	UCM-ANG-T2-5K-32LED-700-120-277				
			UCM-ANG-T3-5K-32LED-700-120-277				
			UCM-ANG-T5-5K-32LED-700-120-277				
450	(None)	3K 3000K	UCM-ANG-T2-3K-32LED-450-120-277				
			UCM-ANG-T3-3K-32LED-450-120-277				
			UCM-ANG-T4-3K-32LED-450-120-277				
			UCM-ANG-T5-3K-32LED-450-120-277				
			UCM-ANG-T2-4K-32LED-450-120-277				
		4K 4000K	UCM-ANG-T3-4K-32LED-450-120-277				
			UCM-ANG-T4-4K-32LED-450-120-277				
			UCM-ANG-T5-4K-32LED-450-120-277				
			UCM-ANG-T2-5K-32LED-450-120-277				
			UCM-ANG-T3-5K-32LED-450-120-277				
		5K 5000K	UCM-ANG-T4-5K-32LED-450-120-277				
			UCM-ANG-T5-5K-32LED-450-120-277				
			WND 4 Windows	3K 3000K	UCM-WND-ANG-T2-3K-32LED-450-120-277		
					UCM-WND-ANG-T3-3K-32LED-450-120-277		
		UCM-WND-ANG-T4-3K-32LED-450-120-277					
		UCM-WND-ANG-T5-3K-32LED-450-120-277					
		4K 4000K		UCM-WND-ANG-T2-4K-32LED-450-120-277			
	UCM-WND-ANG-T3-4K-32LED-450-120-277						
	UCM-WND-ANG-T4-4K-32LED-450-120-277						
	UCM-WND-ANG-T5-4K-32LED-450-120-277						
	5K 5000K	UCM-WND-ANG-T2-5K-32LED-450-120-277					
		UCM-WND-ANG-T3-5K-32LED-450-120-277					
		UCM-WND-ANG-T4-5K-32LED-450-120-277					
		UCM-WND-ANG-T5-5K-32LED-450-120-277					
		SR Solid Rings		3K 3000K	UCM-SR-ANG-T2-3K-32LED-450-120-277	UCM-SR-ANG-T2-3K-32LED-450-FTG-120-277	
					UCM-SR-ANG-T3-3K-32LED-450-120-277	UCM-SR-ANG-T3-3K-32LED-450-FTG-120-277	
	UCM-SR-ANG-T4-3K-32LED-450-120-277						
	UCM-SR-ANG-T5-3K-32LED-450-120-277						
	4K 4000K		UCM-SR-ANG-T2-4K-32LED-450-120-277	UCM-SR-ANG-T2-4K-32LED-450-FTG-120-277			
			UCM-SR-ANG-T3-4K-32LED-450-120-277	UCM-SR-ANG-T3-4K-32LED-450-FTG-120-277			
			UCM-SR-ANG-T4-4K-32LED-450-120-277	UCM-SR-ANG-T4-4K-32LED-450-FTG-120-277			
			UCM-SR-ANG-T5-4K-32LED-450-120-277				
	5K 5000K		UCM-SR-ANG-T2-5K-32LED-450-120-277	UCM-SR-ANG-T2-5K-32LED-450-FTG-120-277			
			UCM-SR-ANG-T3-5K-32LED-450-120-277	UCM-SR-ANG-T3-5K-32LED-450-FTG-120-277			
			UCM-SR-ANG-T4-5K-32LED-450-120-277	UCM-SR-ANG-T4-5K-32LED-450-FTG-120-277			
			UCM-SR-ANG-T5-5K-32LED-450-120-277				
	VSL Vertical Slots	3K 3000K	UCM-VSL-ANG-T2-3K-32LED-450-120-277				
			UCM-VSL-ANG-T3-3K-32LED-450-120-277				
			UCM-VSL-ANG-T4-3K-32LED-450-120-277				
			UCM-VSL-ANG-T5-3K-32LED-450-120-277				
		4K 4000K	UCM-VSL-ANG-T2-4K-32LED-450-120-277				
			UCM-VSL-ANG-T3-4K-32LED-450-120-277				
			UCM-VSL-ANG-T4-4K-32LED-450-120-277				
			UCM-VSL-ANG-T5-4K-32LED-450-120-277				
		5K 5000K	UCM-VSL-ANG-T2-5K-32LED-450-120-277				
			UCM-VSL-ANG-T3-5K-32LED-450-120-277				
			UCM-VSL-ANG-T4-5K-32LED-450-120-277				
			UCM-VSL-ANG-T5-5K-32LED-450-120-277				
		LUM Luminous Rings	3K 3000K	UCM-LUM-ANG-T2-3K-32LED-450-120-277			
				UCM-LUM-ANG-T3-3K-32LED-450-120-277			
				UCM-LUM-ANG-T4-3K-32LED-450-120-277			
				UCM-LUM-ANG-T5-3K-32LED-450-120-277			
	4K 4000K		UCM-LUM-ANG-T2-4K-32LED-450-120-277				
			UCM-LUM-ANG-T3-4K-32LED-450-120-277				
			UCM-LUM-ANG-T4-4K-32LED-450-120-277				
			UCM-LUM-ANG-T5-4K-32LED-450-120-277				
	5K 5000K		UCM-LUM-ANG-T2-5K-32LED-450-120-277				
			UCM-LUM-ANG-T3-5K-32LED-450-120-277				
			UCM-LUM-ANG-T4-5K-32LED-450-120-277				
			UCM-LUM-ANG-T5-5K-32LED-450-120-277				

DLC QUALIFIED PRODUCTS (Continued)

Lumen Package	Luminous Element	CCT	SKB – SKIRTED BELL HOOD		
			NO LENS Standard	FTG Flat clear glass lens	FLD Flat diffused glass lens
450	(None)	3K 3000K	UCM-SKB-T2-3K-32LED-450-120-277		
			UCM-SKB-T3-3K-32LED-450-120-277		
			UCM-SKB-T4-3K-32LED-450-120-277		
			UCM-SKB-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-SKB-T2-4K-32LED-450-120-277		
			UCM-SKB-T3-4K-32LED-450-120-277		
			UCM-SKB-T4-4K-32LED-450-120-277		
			UCM-SKB-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-SKB-T2-5K-32LED-450-120-277		
			UCM-SKB-T3-5K-32LED-450-120-277		
			UCM-SKB-T4-5K-32LED-450-120-277		
			UCM-SKB-T5-5K-32LED-450-120-277		
	WND 4 Windows	3K 3000K	UCM-WND-SKB-T2-3K-32LED-450-120-277		
			UCM-WND-SKB-T3-3K-32LED-450-120-277		
			UCM-WND-SKB-T4-3K-32LED-450-120-277		
			UCM-WND-SKB-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-WND-SKB-T2-4K-32LED-450-120-277		
			UCM-WND-SKB-T3-4K-32LED-450-120-277		
			UCM-WND-SKB-T4-4K-32LED-450-120-277		
			UCM-WND-SKB-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-WND-SKB-T2-5K-32LED-450-120-277		
			UCM-WND-SKB-T3-5K-32LED-450-120-277		
			UCM-WND-SKB-T4-5K-32LED-450-120-277		
			UCM-WND-SKB-T5-5K-32LED-450-120-277		
	SR Solid Rings	3K 3000K	UCM-SR-SKB-T3-3K-32LED-450-120-277		
			UCM-SR-SKB-T4-3K-32LED-450-120-277		
			UCM-SR-SKB-T5-3K-32LED-450-120-277		
			UCM-SR-SKB-T3-4K-32LED-450-120-277		
		4K 4000K	UCM-SR-SKB-T4-4K-32LED-450-120-277		
			UCM-SR-SKB-T5-4K-32LED-450-120-277		
			UCM-SR-SKB-T3-5K-32LED-450-120-277		
			UCM-SR-SKB-T4-5K-32LED-450-120-277		
		5K 5000K	UCM-SR-SKB-T5-5K-32LED-450-120-277		
			UCM-VSL-SKB-T3-3K-32LED-450-120-277		
			UCM-VSL-SKB-T4-3K-32LED-450-120-277		
			UCM-VSL-SKB-T5-3K-32LED-450-120-277		
	VSL Vertical Slots	3K 3000K	UCM-VSL-SKB-T2-4K-32LED-450-120-277		
			UCM-VSL-SKB-T3-4K-32LED-450-120-277		
			UCM-VSL-SKB-T4-4K-32LED-450-120-277		
			UCM-VSL-SKB-T5-4K-32LED-450-120-277		
		4K 4000K	UCM-VSL-SKB-T3-5K-32LED-450-120-277		
			UCM-VSL-SKB-T4-5K-32LED-450-120-277		
			UCM-VSL-SKB-T5-5K-32LED-450-120-277		
		5K 5000K	UCM-LUM-SKB-T2-3K-32LED-450-120-277		
			UCM-LUM-SKB-T3-3K-32LED-450-120-277		
			UCM-LUM-SKB-T4-3K-32LED-450-120-277		
			UCM-LUM-SKB-T5-3K-32LED-450-120-277		
	LUM Luminous Rings	3K 3000K	UCM-LUM-SKB-T3-4K-32LED-450-120-277		
			UCM-LUM-SKB-T4-4K-32LED-450-120-277		
			UCM-LUM-SKB-T5-4K-32LED-450-120-277		
			UCM-LUM-SKB-T3-5K-32LED-450-120-277		
		4K 4000K	UCM-LUM-SKB-T4-5K-32LED-450-120-277		
			UCM-LUM-SKB-T5-5K-32LED-450-120-277		
			UCM-LUM-SKB-T3-5K-32LED-450-120-277		
			UCM-LUM-SKB-T4-5K-32LED-450-120-277		
		5K 5000K	UCM-LUM-SKB-T5-5K-32LED-450-120-277		
			UCM-LUM-SKB-T3-5K-32LED-450-120-277		
			UCM-LUM-SKB-T4-5K-32LED-450-120-277		
			UCM-LUM-SKB-T5-5K-32LED-450-120-277		

DLC QUALIFIED PRODUCTS (Continued)

Lumen Package	Luminous Element	CCT	BEL – BELL HOOD		
			NO LENS Standard	FTG Flat clear glass lens	FLD Flat diffused glass lens
700	(None)	4K 4000K	UCM-BEL-T2-4K-32LED-700-120-277		
			UCM-BEL-T3-4K-32LED-700-120-277		
			UCM-BEL-T4-4K-32LED-700-120-277		
			UCM-BEL-T5-4K-32LED-700-120-277		
		5K 5000K	UCM-BEL-T2-5K-32LED-700-120-277		
			UCM-BEL-T3-5K-32LED-700-120-277		
			UCM-BEL-T4-5K-32LED-700-120-277		
			UCM-BEL-T5-5K-32LED-700-120-277		
	WND 4 Windows	4K	UCM-WND-BEL-T5-4K-32LED-700-120-277		
		5K	UCM-WND-BEL-T5-5K-32LED-700-120-277		
450	(None)	3K 3000K	UCM-BEL-T2-3K-32LED-450-120-277		
			UCM-BEL-T3-3K-32LED-450-120-277		
			UCM-BEL-T4-3K-32LED-450-120-277		
			UCM-BEL-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-BEL-T2-4K-32LED-450-120-277		
			UCM-BEL-T3-4K-32LED-450-120-277		
			UCM-BEL-T4-4K-32LED-450-120-277		
			UCM-BEL-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-BEL-T2-5K-32LED-450-120-277		
			UCM-BEL-T3-5K-32LED-450-120-277		
			UCM-BEL-T4-5K-32LED-450-120-277		
			UCM-BEL-T5-5K-32LED-450-120-277		
	WND 4 Windows	3K 3000K	UCM-WND-BEL-T2-3K-32LED-450-120-277		
			UCM-WND-BEL-T3-3K-32LED-450-120-277		
			UCM-WND-BEL-T4-3K-32LED-450-120-277		
			UCM-WND-BEL-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-WND-BEL-T2-4K-32LED-450-120-277		
			UCM-WND-BEL-T3-4K-32LED-450-120-277		
			UCM-WND-BEL-T4-4K-32LED-450-120-277		
			UCM-WND-BEL-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-WND-BEL-T2-5K-32LED-450-120-277		
			UCM-WND-BEL-T3-5K-32LED-450-120-277		
			UCM-WND-BEL-T4-5K-32LED-450-120-277		
			UCM-WND-BEL-T5-5K-32LED-450-120-277		
	SR Solid Rings	3K 3000K	UCM-SR-BEL-T2-3K-32LED-450-120-277		
			UCM-SR-BEL-T3-3K-32LED-450-120-277		
			UCM-SR-BEL-T4-3K-32LED-450-120-277		
			UCM-SR-BEL-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-SR-BEL-T2-4K-32LED-450-120-277		
			UCM-SR-BEL-T3-4K-32LED-450-120-277		
			UCM-SR-BEL-T4-4K-32LED-450-120-277		
			UCM-SR-BEL-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-SR-BEL-T2-5K-32LED-450-120-277		
			UCM-SR-BEL-T3-5K-32LED-450-120-277		
			UCM-SR-BEL-T4-5K-32LED-450-120-277		
			UCM-SR-BEL-T5-5K-32LED-450-120-277		
	VSL Vertical Slots	3K 3000K	UCM-VSL-BEL-T2-3K-32LED-450-120-277		
			UCM-VSL-BEL-T3-3K-32LED-450-120-277		
			UCM-VSL-BEL-T4-3K-32LED-450-120-277		
			UCM-VSL-BEL-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-VSL-BEL-T2-4K-32LED-450-120-277		
			UCM-VSL-BEL-T3-4K-32LED-450-120-277		
			UCM-VSL-BEL-T4-4K-32LED-450-120-277		
			UCM-VSL-BEL-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-VSL-BEL-T2-5K-32LED-450-120-277		
			UCM-VSL-BEL-T3-5K-32LED-450-120-277		
			UCM-VSL-BEL-T4-5K-32LED-450-120-277		
			UCM-VSL-BEL-T5-5K-32LED-450-120-277		
	LUM Luminous Rings	3K 3000K	UCM-LUM-BEL-T2-3K-32LED-450-120-277		
			UCM-LUM-BEL-T3-3K-32LED-450-120-277		
			UCM-LUM-BEL-T4-3K-32LED-450-120-277		
			UCM-LUM-BEL-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-LUM-BEL-T2-4K-32LED-450-120-277		
			UCM-LUM-BEL-T3-4K-32LED-450-120-277		
			UCM-LUM-BEL-T4-4K-32LED-450-120-277		
			UCM-LUM-BEL-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-LUM-BEL-T2-5K-32LED-450-120-277		
			UCM-LUM-BEL-T3-5K-32LED-450-120-277		
			UCM-LUM-BEL-T4-5K-32LED-450-120-277		
			UCM-LUM-BEL-T5-5K-32LED-450-120-277		

DLC QUALIFIED PRODUCTS (Continued)

Lumen Package	Luminous Element	CCT	FLR – FLARED HOOD		
			NO LENS Standard	FTG Flat clear glass lens	FLD Flat diffused glass lens
450	(None)	3K 3000K	UCM-FLR-T2-3K-32LED-450-120-277		
			UCM-FLR-T3-3K-32LED-450-120-277		
			UCM-FLR-T4-3K-32LED-450-120-277		
			UCM-FLR-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-FLR-T2-4K-32LED-450-120-277		
			UCM-FLR-T3-4K-32LED-450-120-277		
			UCM-FLR-T4-4K-32LED-450-120-277		
			UCM-FLR-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-FLR-T2-5K-32LED-450-120-277		
			UCM-FLR-T3-5K-32LED-450-120-277		
			UCM-FLR-T4-5K-32LED-450-120-277		
			UCM-FLR-T5-5K-32LED-450-120-277		
	WND 4 Windows	3K 3000K	UCM-WND-FLR-T2-3K-32LED-450-120-277		
			UCM-WND-FLR-T3-3K-32LED-450-120-277		
			UCM-WND-FLR-T4-3K-32LED-450-120-277		
			UCM-WND-FLR-T5-3K-32LED-450-120-277		
		4K 4000K	UCM-WND-FLR-T2-4K-32LED-450-120-277		
			UCM-WND-FLR-T3-4K-32LED-450-120-277		
			UCM-WND-FLR-T4-4K-32LED-450-120-277		
			UCM-WND-FLR-T5-4K-32LED-450-120-277		
		5K 5000K	UCM-WND-FLR-T2-5K-32LED-450-120-277		
			UCM-WND-FLR-T3-5K-32LED-450-120-277		
			UCM-WND-FLR-T4-5K-32LED-450-120-277		
			UCM-WND-FLR-T5-5K-32LED-450-120-277		
		3K 3000K	UCM-SR-FLR-T3-3K-32LED-450-120-277		
			UCM-SR-FLR-T4-3K-32LED-450-120-277		
			UCM-SR-FLR-T5-3K-32LED-450-120-277		
			UCM-SR-FLR-T2-4K-32LED-450-120-277		
		4K 4000K	UCM-SR-FLR-T3-4K-32LED-450-120-277		
			UCM-SR-FLR-T4-4K-32LED-450-120-277		
			UCM-SR-FLR-T5-4K-32LED-450-120-277		
			UCM-SR-FLR-T2-5K-32LED-450-120-277		
		5K 5000K	UCM-SR-FLR-T3-5K-32LED-450-120-277		
			UCM-SR-FLR-T4-5K-32LED-450-120-277		
			UCM-SR-FLR-T5-5K-32LED-450-120-277		
			UCM-VSL-FLR-T2-3K-32LED-450-120-277		
	VSL Vertical Slots	3K 3000K	UCM-VSL-FLR-T3-3K-32LED-450-120-277		
			UCM-VSL-FLR-T4-3K-32LED-450-120-277		
			UCM-VSL-FLR-T5-3K-32LED-450-120-277		
			UCM-VSL-FLR-T2-4K-32LED-450-120-277		
		4K 4000K	UCM-VSL-FLR-T3-4K-32LED-450-120-277		
			UCM-VSL-FLR-T4-4K-32LED-450-120-277		
			UCM-VSL-FLR-T5-4K-32LED-450-120-277		
			UCM-VSL-FLR-T2-5K-32LED-450-120-277		
		5K 5000K	UCM-VSL-FLR-T3-5K-32LED-450-120-277		
			UCM-VSL-FLR-T4-5K-32LED-450-120-277		
			UCM-VSL-FLR-T5-5K-32LED-450-120-277		
			UCM-LUM-FLR-T2-3K-32LED-450-120-277		
	LUM Luminous Rings	3K 3000K	UCM-LUM-FLR-T4-3K-32LED-450-120-277		
			UCM-LUM-FLR-T5-3K-32LED-450-120-277		
			UCM-LUM-FLR-T2-4K-32LED-450-120-277		
			UCM-LUM-FLR-T4-4K-32LED-450-120-277		
		4K 4000K	UCM-LUM-FLR-T5-4K-32LED-450-120-277		
			UCM-LUM-FLR-T2-5K-32LED-450-120-277		
			UCM-LUM-FLR-T3-5K-32LED-450-120-277		
			UCM-LUM-FLR-T4-5K-32LED-450-120-277		
		5K 5000K	UCM-LUM-FLR-T5-5K-32LED-450-120-277		

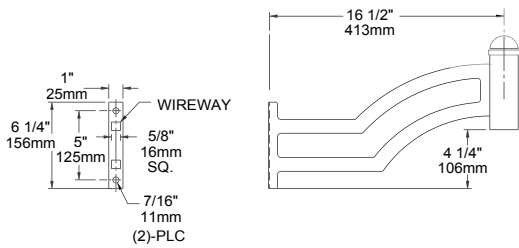
DLC QUALIFIED PRODUCTS (Continued)

Lumen Package	Luminous Element	CCT	STR – STRAIGHT HOOD		
			NO LENS Standard	FTG Flat clear glass lens	FLD Flat diffused glass lens
700	(None)	4K 4000K	UCM-STR-T2-4K-32LED-700-120-277		
			UCM-STR-T3-4K-32LED-700-120-277		
			UCM-STR-T4-4K-32LED-700-120-277		
		5K 5000K	UCM-STR-T5-4K-32LED-700-120-277		
			UCM-STR-T2-5K-32LED-700-120-277		
			UCM-STR-T3-5K-32LED-700-120-277		
	WND 4 Windows	4K 4000K	UCM-STR-T4-5K-32LED-700-120-277		
			UCM-STR-T5-5K-32LED-700-120-277		
			UCM-WND-STR-T2-4K-32LED-700-120-277		
		5K 5000K	UCM-WND-STR-T3-4K-32LED-700-120-277		
			UCM-WND-STR-T5-4K-32LED-700-120-277		
			UCM-WND-STR-T2-5K-32LED-700-120-277		
450	(None)	3K 3000K	UCM-STR-T3-5K-32LED-450-120-277		
			UCM-STR-T4-5K-32LED-450-120-277		
			UCM-STR-T5-5K-32LED-450-120-277		
			UCM-STR-T2-4K-32LED-450-120-277		
		4K 4000K	UCM-STR-T3-4K-32LED-450-120-277		
			UCM-STR-T4-4K-32LED-450-120-277		
			UCM-STR-T5-4K-32LED-450-120-277		
			UCM-STR-T2-5K-32LED-450-120-277		
		5K 5000K	UCM-STR-T3-5K-32LED-450-120-277		
			UCM-STR-T4-5K-32LED-450-120-277		
			UCM-STR-T5-5K-32LED-450-120-277		
			UCM-WND-STR-T2-3K-32LED-450-120-277		
	WND 4 Windows	3K 3000K	UCM-WND-STR-T3-3K-32LED-450-120-277		
			UCM-WND-STR-T4-3K-32LED-450-120-277		
			UCM-WND-STR-T5-3K-32LED-450-120-277		
			UCM-WND-STR-T2-4K-32LED-450-120-277	UCM-WND-STR-T2-4K-32LED-450-FTG-120-277	
		4K 4000K	UCM-WND-STR-T3-4K-32LED-450-120-277		
			UCM-WND-STR-T4-4K-32LED-450-120-277		
			UCM-WND-STR-T5-4K-32LED-450-120-277		
			UCM-WND-STR-T2-5K-32LED-450-120-277	UCM-WND-STR-T2-5K-32LED-450-FTG-120-277	
		5K 5000K	UCM-WND-STR-T3-5K-32LED-450-120-277	UCM-WND-STR-T3-5K-32LED-450-FTG-120-277	
			UCM-WND-STR-T4-5K-32LED-450-120-277		
			UCM-WND-STR-T5-5K-32LED-450-120-277	UCM-WND-STR-T5-5K-32LED-450-FTG-120-277	
			UCM-SR-STR-T2-3K-32LED-450-120-277		
	SR Solid Rings	3K 3000K	UCM-SR-STR-T3-3K-32LED-450-120-277		
			UCM-SR-STR-T4-3K-32LED-450-120-277		
			UCM-SR-STR-T5-3K-32LED-450-120-277		
			UCM-SR-STR-T2-4K-32LED-450-120-277		
		4K 4000K	UCM-SR-STR-T3-4K-32LED-450-120-277		
			UCM-SR-STR-T4-4K-32LED-450-120-277		
			UCM-SR-STR-T5-4K-32LED-450-120-277		
			UCM-SR-STR-T2-5K-32LED-450-120-277		
		5K 5000K	UCM-SR-STR-T3-5K-32LED-450-120-277		
			UCM-SR-STR-T4-5K-32LED-450-120-277		
			UCM-SR-STR-T5-5K-32LED-450-120-277		
			UCM-VSL-STR-T2-3K-32LED-450-120-277		
	VSL Vertical Slots	3K 3000K	UCM-VSL-STR-T3-3K-32LED-450-120-277		
			UCM-VSL-STR-T4-3K-32LED-450-120-277		
			UCM-VSL-STR-T5-3K-32LED-450-120-277		
			UCM-VSL-STR-T2-4K-32LED-450-120-277		
		4K 4000K	UCM-VSL-STR-T3-4K-32LED-450-120-277		
			UCM-VSL-STR-T4-4K-32LED-450-120-277		
			UCM-VSL-STR-T5-4K-32LED-450-120-277		
			UCM-VSL-STR-T2-5K-32LED-450-120-277		
		5K 5000K	UCM-VSL-STR-T3-5K-32LED-450-120-277		
			UCM-VSL-STR-T4-5K-32LED-450-120-277		
			UCM-VSL-STR-T5-5K-32LED-450-120-277		
			UCM-LUM-STR-T2-3K-32LED-450-120-277		
	LUM Luminous Rings	3K 3000K	UCM-LUM-STR-T3-3K-32LED-450-120-277		
			UCM-LUM-STR-T4-3K-32LED-450-120-277		
			UCM-LUM-STR-T5-3K-32LED-450-120-277		
			UCM-LUM-STR-T2-4K-32LED-450-120-277		
		4K 4000K	UCM-LUM-STR-T3-4K-32LED-450-120-277		
			UCM-LUM-STR-T4-4K-32LED-450-120-277		
			UCM-LUM-STR-T5-4K-32LED-450-120-277		
			UCM-LUM-STR-T2-5K-32LED-450-120-277		
		5K 5000K	UCM-LUM-STR-T3-5K-32LED-450-120-277		
			UCM-LUM-STR-T4-5K-32LED-450-120-277		
			UCM-LUM-STR-T5-5K-32LED-450-120-277		
			UCM-LUM-STR-T2-5K-32LED-450-120-277		

SLA3

WT: 8 LBS

EPA: .77

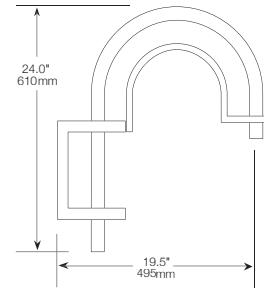


4" POLE

SLA3

WT: 8 LBS

EPA: .77

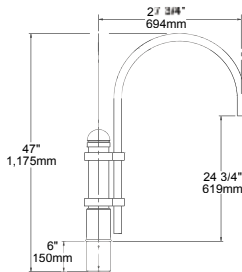


4" POLE

SLA4

WT: 14 LBS

EPA: 1.39

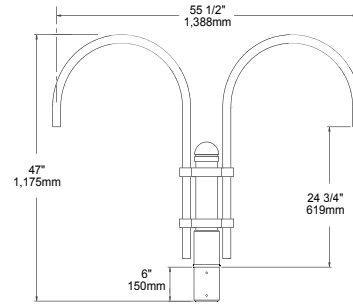


4" POLE

SLA4-2

WT: 26 LBS

EPA: 2.10

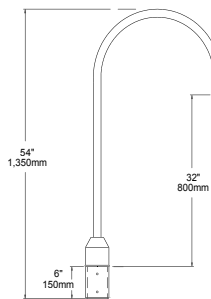


4" POLE

SLA7

WT: 9 LBS

EPA: 1.34

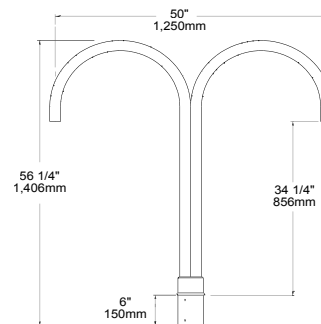


4" POLE

SLA7-2

WT: 16 LBS

EPA: 2.34

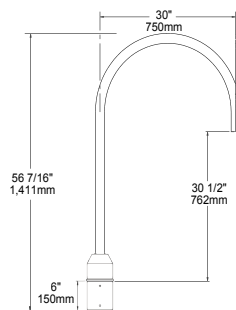


4" POLE

SLA7 (5)

WT: 11 LBS

EPA: 1.73

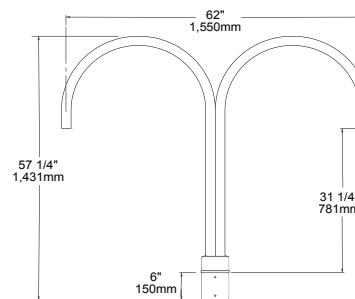


5" POLE

SLA7 (5)-2

WT: 18 LBS

EPA: 2.60

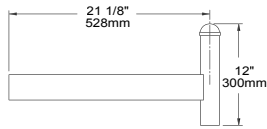


5" POLE

SLA8D

WT: 5 LBS

EPA: .40

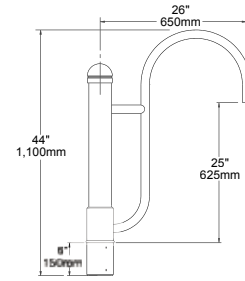


4" OR 5" POLE

SLA9

WT: 18 LBS

EPA: 1.90

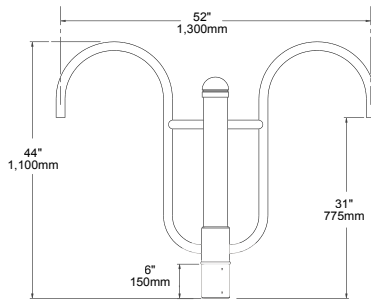


4" POLE

SLA9-2

WT: 24 LBS

EPA: 2.44

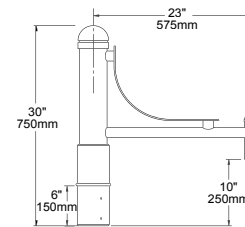


4" POLE

SLA10

WT: 9 LBS

EPA: 1.09

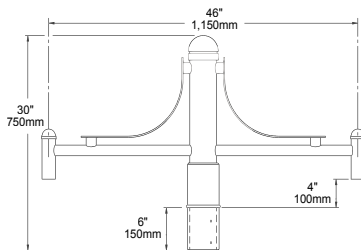


4" POLE

SLA10-2

WT: 16 LBS

EPA: 1.47

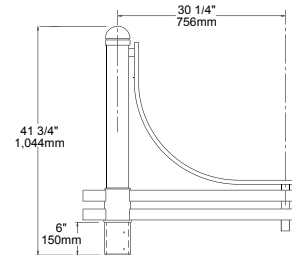


4" POLE

SLA16

WT: 18 LBS

EPA: 2.88

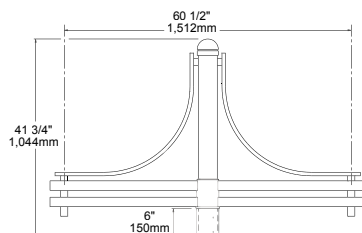


4" POLE

SLA16-2

WT: 28 LBS

EPA: 4.38

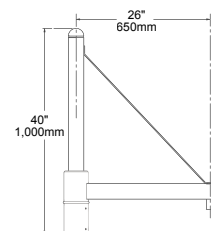


4" POLE

SLA17

WT: 18 LBS

EPA: 1.50

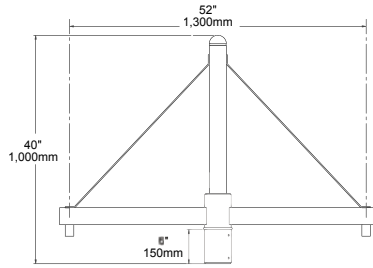


4" POLE

SLA17-2

WT: 24 LBS

EPA: 2.05

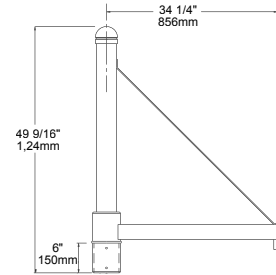


4" POLE

SLA17 (5)

WT: 24 LBS

EPA: 2.20

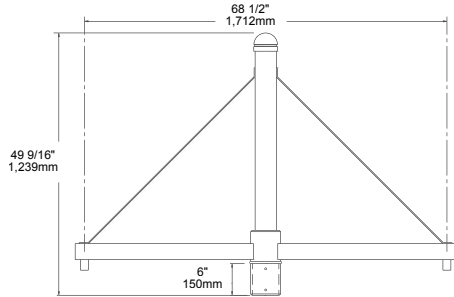


5" POLE

SLA17 (5)-2

WT: 33 LBS

EPA: 2.90

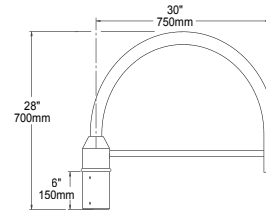


5" POLE

SLA18

WT: 12 LBS

EPA: .85

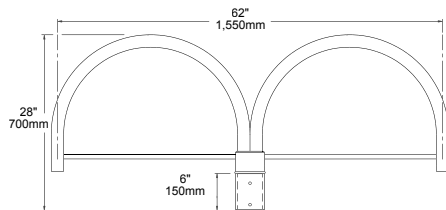


4" POLE

SLA18-2

WT: 22 LBS

EPA: 1.59

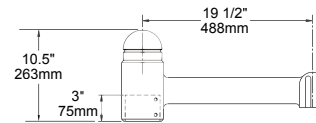


4" POLE

SLA20

WT: 10 LBS

EPA: .70

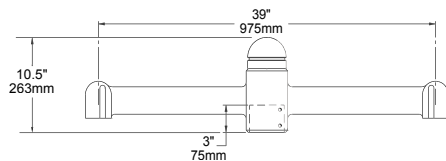


4" POLE

SLA20-2

WT: 18 LBS

EPA: 1.25

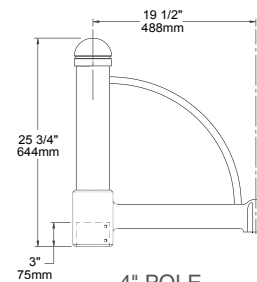


4" POLE

SLA20A

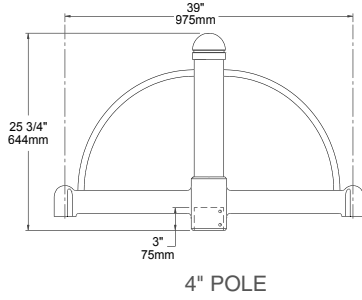
WT: 15 LBS

EPA: 1.30

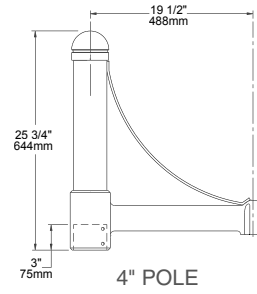


4" POLE

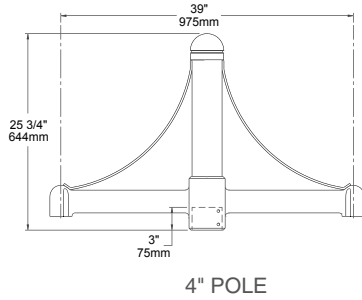
SLA20A-2 WT: 26 LBS EPA: 1.94



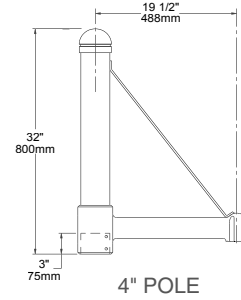
SLA20B WT: 14 LBS EPA: 1.40



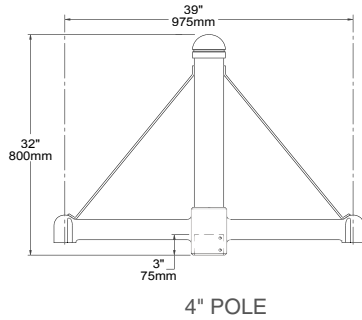
SLA20B-2 WT: 24 LBS EPA: 1.70



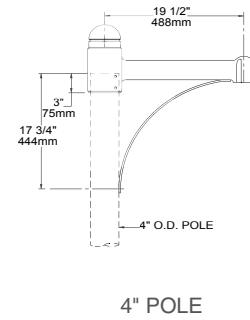
SLA20C WT: 15 LBS EPA: 1.39



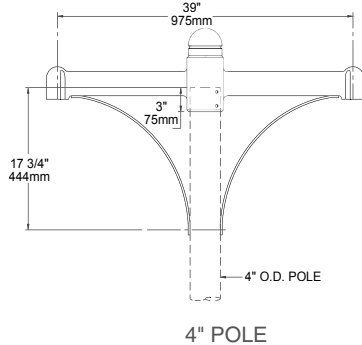
SLA20C-2 WT: 26 LBS EPA: 1.91



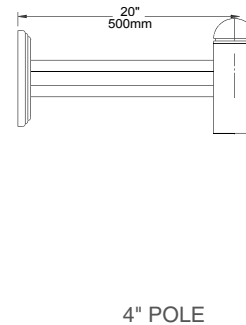
SLA20D WT: 12 LBS EPA: .75



SLA20D-2 WT: 21 LBS EPA: 1.18



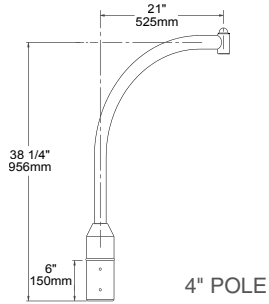
SLA22D WT: 4 LBS EPA: .44



SLA24

WT: 9 LBS

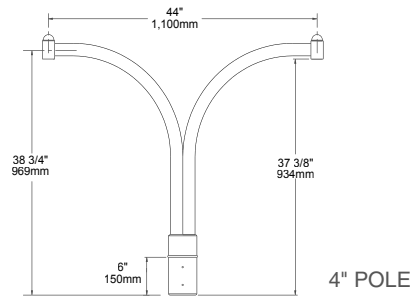
EPA: .85



SLA24-2

WT: 14 LBS

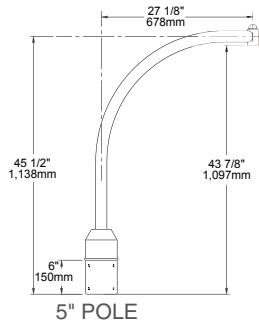
EPA: 1.59



SLA24(5)

WT: 11 LBS

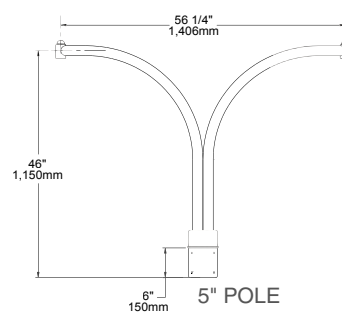
EPA: 1.17



SLA24(5)-2

WT: 16 LBS

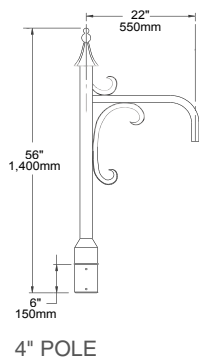
EPA: 1.81



TRA4

WT: 16 LBS

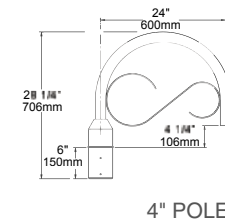
EPA: 1.81



TRA7

WT: 12 LBS

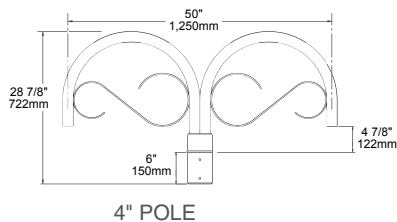
EPA: .90



TRA7-2

WT: 18 LBS

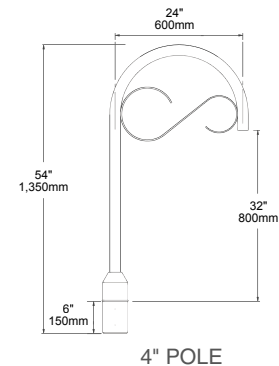
EPA: 1.62



TRA8

WT: 13 LBS

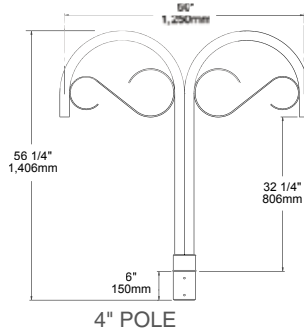
EPA: 1.34



TRA8-2

WT: 21 LBS

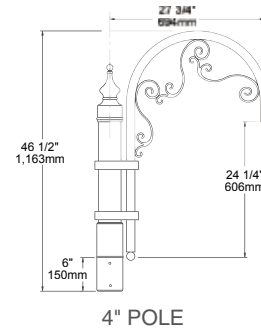
EPA: 2.68



TRA9

WT: 17 LBS

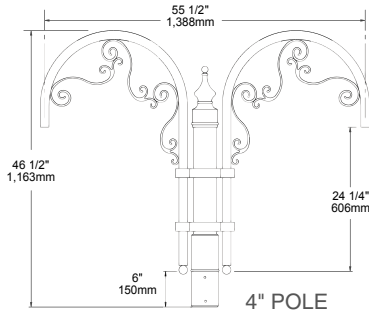
EPA: 1.90



TRA9-2

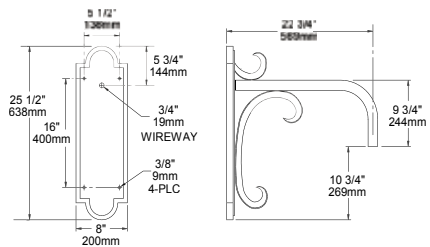
WT: 25 LBS

EPA: 2.72



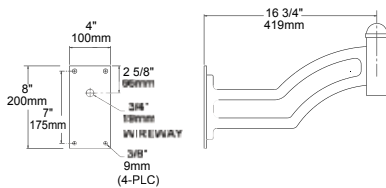
WMA4

WT: 12 LBS



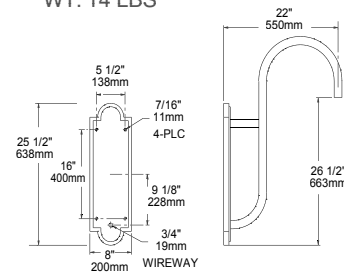
WMA5

WT: 6 LBS



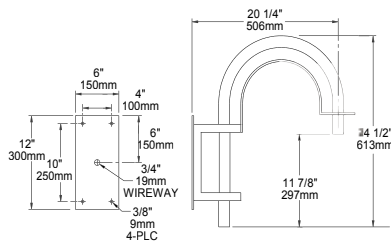
WMA6

WT: 14 LBS



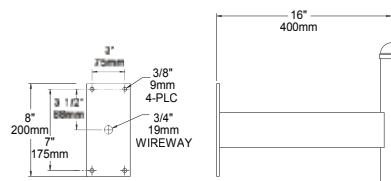
WMA8

WT: 10 LBS

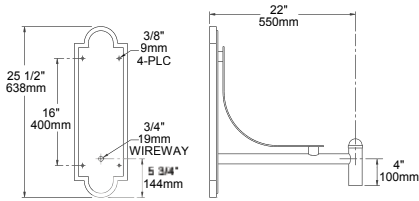


WMA9D

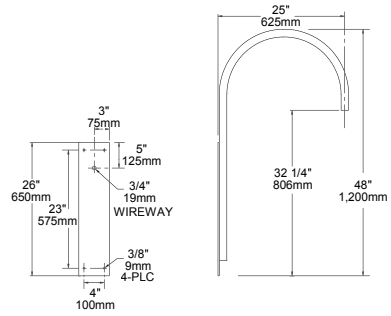
WT: 6 LBS



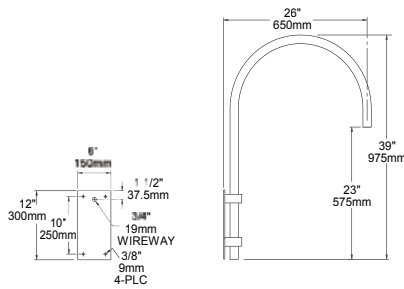
WMA10 WT: 16 LBS



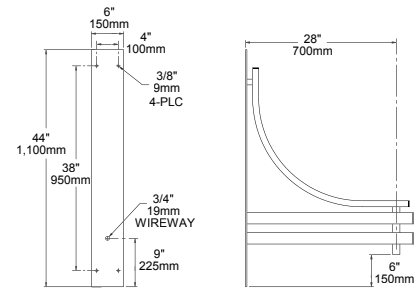
WMA11 WT: 10 LBS



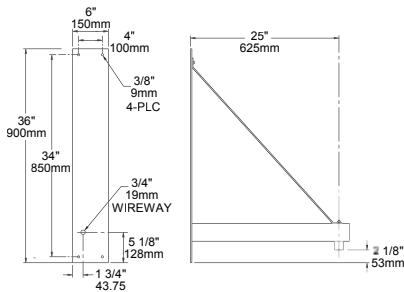
WMA12 WT: 12 LBS



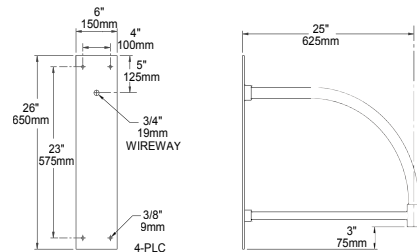
WMA16 WT: 22 LBS



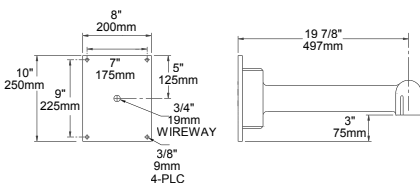
WMA17 WT: 15 LBS



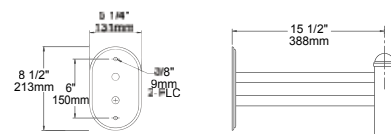
WMA18 WT: 18 LBS



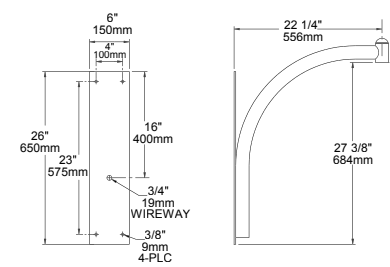
WMA20 WT: 12 LBS



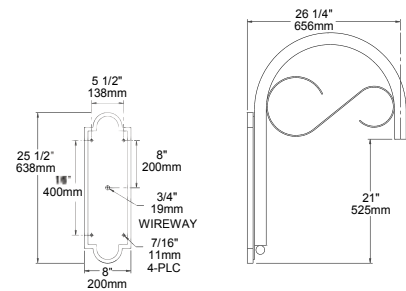
WMA22D WT: 4 LBS



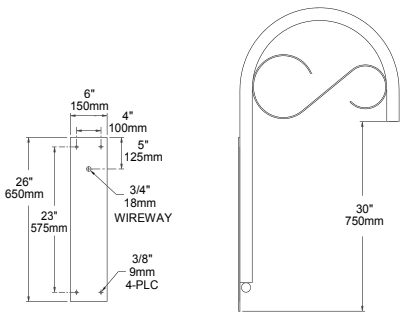
WMA24 WT: 12 LBS



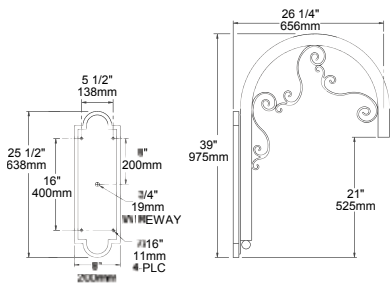
WMA37 WT: 12 LBS



WMA38 WT: 12 LBS



WMA39 WT: 14 LBS



ID+ 3.5"

LED DOWNLIGHT



Solite lens option



clear diffuse



warm diffuse



white painted
flange



black painted



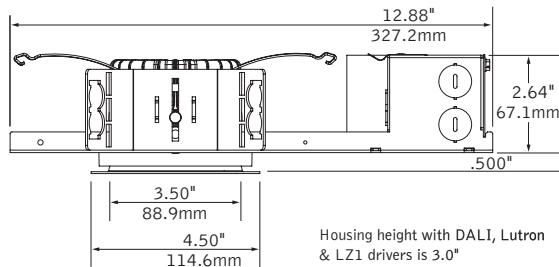
white painted



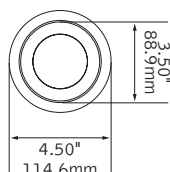
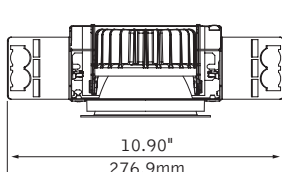
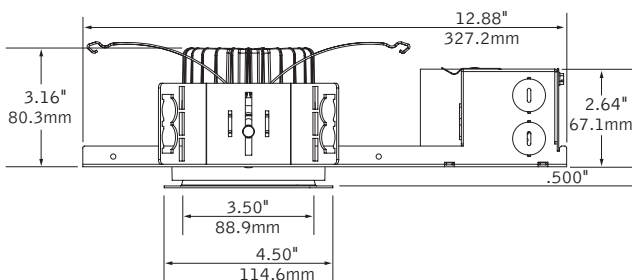
trimless
companion

DIMENSIONAL DATA

Very Shallow Housing - 60° and 75° cut-off reflectors



Shallow Housing - 50° cut-off reflector



FEATURES

Less than 2.64" low profile housing available.

ChromaSure: Color consistency resulting in a 2-step MacAdam ellipse across the entire ID+ product line.

Field adjustability of ceiling thickness from 0.5" - 1.5".

50°, 60° and 75° cut-off reflector options available.

Outdoor rating permits use in outdoor covered ceiling applications.

Solite lens with die-cast trim and 70° or 90° beam spread options available.

Solite lens and trim allows for a coordinated aesthetic with companion ID+ 3.5" Adjustable Accent.

PERFORMANCE

PRODUCT OVERVIEW

Lumen Output:	700-1500lm
Wattage:	9-20W
LPW:	79-92
SDCM:	2

Short 60° Cut-off, Narrow Flood, Clear Diffuse, 3500K

Lumen Output: 1500lm

Total System Watts: 20W

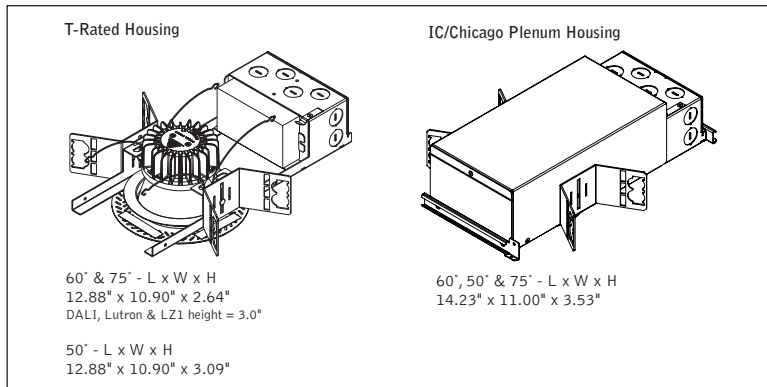


Photometric performance is measured in accordance with IESNA LM-79. Visit focalpointlights.com for complete photometric data. Visit energystar.gov for model specifics.

fixture:

project:

HOUSING DETAILS



HOUSING SPECIFICATIONS

Construction

Thermally protected housing for new construction applications. Insulation to be kept 3" away from housing. Type IC inherently protected, suitable for direct contact with insulation. Restrictive airflow per ASTM-E283. Butterfly brackets allow mounting to 1/2" emt. Order bar hangers as an accessory. Die-cast aluminum heat sink designed for maximum thermal dissipation. Die-formed housing and integral junction box with (7) 1/2" pry outs. Accommodates ceiling thicknesses up to 0.5" standard, field adjustable up to 1.5" thickness. For thicker ceiling consult factory. Fixture will not exceed 5 lb.

Electrical

Choice of constant current dimming drivers. Power factor > .9 typical.

Emergency

Emergency Battery Pack: Bodine BSL17C-C2. Emergency output —7W for 90 minutes. Maximum mounting height — DNT & DNS optic: 21.4ft. DSS optic: 15.3ft.

Labels

UL and cUL Listed. Suitable for Dry, Damp or Wet Locations, indoor use only. Specify Outdoor rated (OD) for outdoor recessed ceiling applications.

Lumen Maintenance

Reported: L70 at >55,000 hours Calculated: L70 at 420,000 hours
L90 at >55,000 hours L90 at 109,000 hours
Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

LED System rated for operation in ambient environments up to 25°C. 5-year limited warranty. Fixture with Outdoor rated option must be installed in a covered ceiling and is warranted for operation in ambient environments between -20°C to +40°C.

TRIM & LED SPECIFICATIONS

LED System

Proprietary array incorporates premium LEDs on a robust platform. May be specified in 2700K, 3000K, 3500K or 4000K, CRI>80 or >90. Color accuracy within 2 SDCM. Aluminum heat sink provides appropriate thermal management.

Aesthetics

Parabolic reflector cone ensures glare free optics. DNT & DNS reflector is .050 spun aluminum. DSS reflector is die-cast aluminum. Trims are self-flanged. Non-painted trim matches reflector finish. Painted flange may also be specified.

Optics

50-degree, 60-degree or 75-degree cut-off to light source and its image.

Ordering Code	Cut-Off Degree	Distribution Beam Spread Spacing Criteria					Housing Depth
		NFL	FL	WFL	VWFL	SWFL	
DNT	 50°	26° 0.43	44° 0.67	59° 0.91	-	-	3.16"
DNS	 60°	24° 0.39	44° 0.67	56° 0.81	-	-	2.64"
DSS	 75°	-	-	-	70° 0.91	94° 1.22	2.64"

PERFORMANCE TABLE - see page 3.

Focal Point LLC reserves the right to change specifications for product improvement without notification.

HOUSING ORDERING

Housing Series		FLC3D
ID+ 3.5" Round		FLC3D
Trim Type		RO
Round Overlap		RO
Lumen Output		
700 Lumen		700L
900 Lumen		900L
1100 Lumen		1100L
1300 Lumen		1300L
1500 Lumen		1500L
Voltage		
120V		120
277V		277
Control System & Dimming Level		
0-10V - 0% Dimming		LZ1
0-10V - 1% Dimming		L11
0-10V - 10% Dimming		LD1
Forward Phase		LFP
(120V only. 900 & 1300 Lumens only.)		
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming		LH1
(700 & 1500 lumens not available.)		
Lutron 5-Series EcoSystem (LDE5) - 5% Dimming		LU5
(1300 Lumens only)		
Lutron Hi-Lume - Forward Phase - 1% Dimming		LTE
(120V only. 1500 lumens not available.)		
DALI - 0% Dimming		DZ1
DALI - 1% Dimming		D11
Housing Type		
IC Rated / Airtight		IC
(Available options: L11 & LD1: 700, 900 & 1100 Lumens. LFP: 900 & 1300 Lumens.)		
Thermally Protected, Non-IC		T
(Housing height = 3.0" for LZ1, L3D, LH1, LTE, LU5, D11 & DZ1)		
Factory Options		
Bar Hangers		BH
Chicago Plenum		CP
Emergency Battery -Remote test switch		EMR
(Not available with CP or IC. Above Ceiling Access.)		
Outdoor Rated		OD
(LD1 driver and T-rated housing only. Not available with CP or EMR. See dimming performance table on page 3.)		
TRIM & LED MODULE		LC3
Aperture		
3.5" Round Reflector		LC3
Trim Type		
Round Overlap		RO
Round Die-Cast Overlap		RDO
(DSS, VWFL & SWFL options only)		
Lumen Output		
(Trim & housing output must match)		
700 Lumen		700L
900 Lumen		900L
1100 Lumen		1100L
1300 Lumen		1300L
1500 Lumen		1500L
Color Temperature		
2700K, 80+ CRI or 90+ CRI		27K or 927K
3000K, 80+ CRI or 90+ CRI		30K or 930K
3500K, 80+ CRI or 90+ CRI		35K or 935K
4000K, 80+ CRI or 90+ CRI		40K or 940K
Optic		
Tall Cone with 50° cut-off		DNT
Short Cone with 60° cut-off		DNS
Super Short Cone with Solite Lens 75° cut-off		DSS
(Die-cast trim, RDO, with VWFL or SWFL only)		
Distribution		
Narrow Flood		NFL
Flood		FL
Wide Flood		WFL
Very Wide Flood		VWFL
(Die-cast trim, RDO, with DSS Optic only)		
Super Wide Flood		SWFL
(Die-cast trim, RDO, with DSS Optic only)		
Color		
Clear Diffuse		CD
Warm Diffuse		WD
Black		BK
(Black painted flange only)		
White		WH
(White painted flange only)		
Flange Finish		
Non-Painted		NP
(Clear and warm diffuse only)		
Black Painted		BP
White Painted		WP



Options in orange qualify for the Quickship program. 5-day up to 100 pieces. Refer to Quickship Guide for complete details.

ROUND DOWNLIGHT PERFORMANCE TABLE

Lumen Output	Delivered Lumens	System Watts	LPW
700L	791	9	92
900L	964	11	90
1100L	1196	15	79
1300L	1392	18	79
1500L	1587	20	79

Based on Trimless, Short Cone, 3500K, 80CRI, Wide Flood, Clear Diffuse.
Delivered lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

OUTDOOR RATED (OD) DRIVER DIMMING PERFORMANCE TABLE

Lumen Output	Minimum Dimming Level
700L	37%
900L	29%
1100L	23%
1300L	19%
1500L	17%

ROUND DOWNLIGHT LUMEN MULTIPLIER TABLE

Color Temperature & CRI

Trim Type	Optic	Color Temperature	Multiplier
ALL	ALL	2700K, 80+ CRI [27K]	0.93
		2700K, 90+ CRI [927K]	0.75
		3000K, 80+ CRI [30K]	0.93
		3000K, 90+ CRI [930K]	0.81
		3500K, 80+ CRI [35K]	1.00
		3500K, 90+ CRI [935K]	0.81
		4000K, 80+ CRI [40K]	1.00
		4000K, 90+ CRI [940K]	0.87

Distribution

Trim Type	Optic	Distribution	Multiplier
Round Trimless [RT]	Tall Cone with 50° cut-off [DNT]	Narrow Flood [NFL]	0.99
		Flood [FL]	1.01
		Wide Flood [WFL]	0.98
	Short Cone with 60° cut-off [DNS]	Narrow Flood [NFL]	1.02
		Flood [FL]	1.05
		Wide Flood [WFL]	1.06
Round Overlap [RO]	Tall Cone with 50° cut-off [DNT]	Narrow Flood [NFL]	0.96
		Flood [FL]	0.90
		Wide Flood [WFL]	0.96
	Short Cone with 60° cut-off [DNS]	Narrow Flood [NFL]	1.02
		Flood [FL]	1.01
		Wide Flood [WFL]	0.95
Round Die-Cast Trimless [RDT]	Super Short Cone with Solite Lens 75° cut-off [DSS]	Very Wide Flood [VWFL] Super Wide Flood [SWFL]	0.92 0.85
Round Die-Cast Overlap [RDO]	Super Short Cone with Solite Lens 75° cut-off [DSS]	Very Wide Flood [VWFL] Super Wide Flood [SWFL]	0.84 0.79

Color

Trim Type	Optic	Color	Multiplier
Round Trimless [RT] and Round Overlap [RO]	Tall Cone with 50° cut-off [DNT] and Short Cone with 60° cut-off [DNS]	Clear Diffuse [CD]	1.00
		Warm Diffuse [WD]	1.03
		White [WH]	1.16
		Black [BK]	0.79
Round Die-Cast Trimless [RDT] and Round Die-Cast Overlap [RDO]	Super Short Cone with Solite Lens 75° cut-off [DSS]	Clear Diffuse [CD]	1.00
		Warm Diffuse [WD]	0.97
		White [WH]	1.15
		Black [BK]	0.86

Multiplier tables are provided to aid with estimation of lumen levels across options. Apply multipliers against ordered Lumen Output to estimate Delivered Lumens. Refer to IES files for most accurate photometric information.

How To Use Lumen Multipliers

Formula: (Lumen Output Value) x (Color Temperature & CRI) x (Distribution) x (Color)

Example: LC3-RO-1100L-935K-DNS-FL-WH

(1100) x (0.81) x (1.05) x (1.01) ≈ 945 lm (estimated delivered lumens)

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277, 347 and 480V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F and E are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downlight only, 3000K and warmer CCTs
- Occupancy Sensor & Wireless Control Options



Downlight only, 3000K and warmer CCTs



ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY2-25	25w, 2500 nominal lumens
CY2-35	40w, 3500 nominal lumens
CY2-45	50w, 4500 nominal lumens

CCT-CRI

27K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
4	25/25/25/25 Split, Down/Up/Side distributions must match
5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
PB*	Pencil Beam
1D	Type 1 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

SECONDARY DISTRIBUTION (Up, Sides)

2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
347	347V
480	480V

BASE HOUSING FINISH

Standard Colors

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	Metallic Bronze
MG	Medium Grey
TT	Titanium
VB	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Premium Colors

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM	Please provide color chip for matching
COLOR	

FASCIA FORM

F	Flat
R	Radius/Curved
T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount
	Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
OPS	Open Panel Stainless Steel
OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
PPP	Perforated Panel Painted
PPS	Perforated Panel Stainless Steel
PPC	Perforated Panel Copper

Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
SCP	Programmable Occupancy Sensor
SWP	SiteSync Wireless
SWPM	SiteSync Wireless w/Occupancy Sensor

WIR	wiSCAPE
WIRSC	wiSCAPE w/Occupancy Sensor

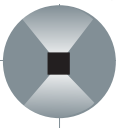
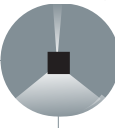
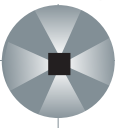
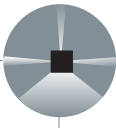
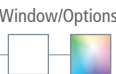
Occupancy sensors not available with CB, T, E or C fascia forms

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277, 347)
DF	Double Fuse (208, 240, 480)

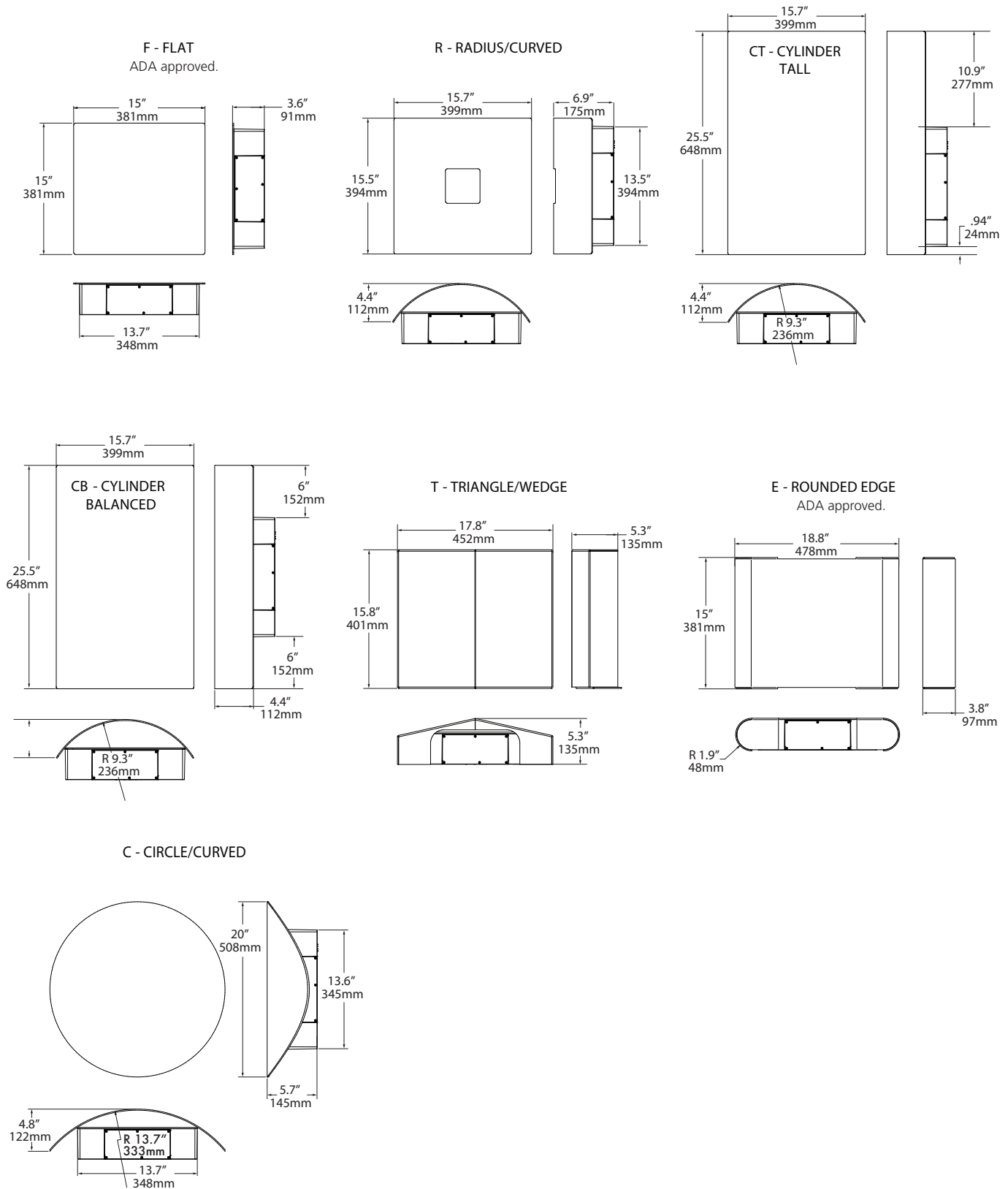
Battery Backup not available with Triangle and Rounded Edge Fascia Forms.

Distribution Matrix

FASCIA	DISTRIBUTION				
	1 	2 	3 	4 	5 
Window/Options 					
Flat* F	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Window/Options 					
Radius Curve R	SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Cylinder Balanced CB	SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB SP/WG
Cylinder Tall CT	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge T	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge* E	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/ Curved C	SP, WG	SP, WG SP, WG	SP/WG/PB SP, WG		
Ghost	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG

* ADA compliant for use in low mounting height applications (80 inches or less)
 2 Down/Up distributions must match
 4 Down/Up/Side distributions must match
 5 Top/Side distributions must match
 Contact factory for custom distributions

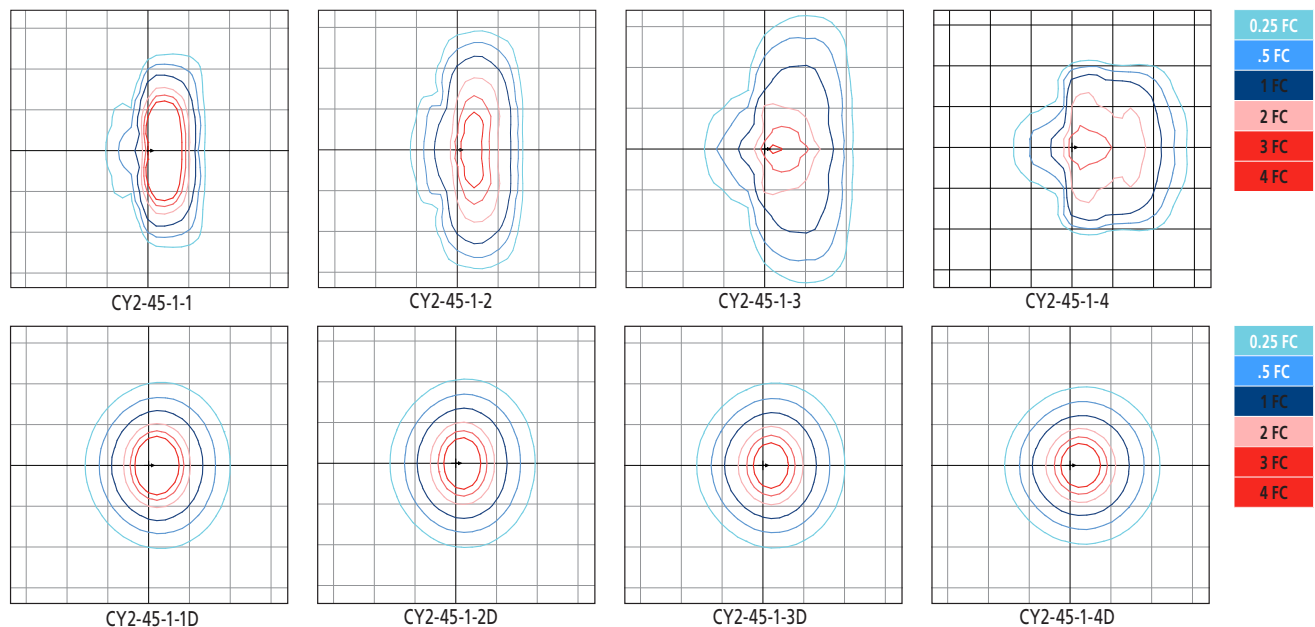
Drawings



LUMINAIRE PERFORMANCE

Downlight only			Configuration																	
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)						Neutral White (4000K)						Warm White (3000K)					
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating					
					B	U	G			B	U	G			B	U	G			
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
2,500	26	Type 1	2836	109	0	0	0	2596	100	0	0	0	2499	96	0	0	0			
		Type 2	2570	99	1	0	1	2353	90	1	0	1	2265	87	1	0	1			
		Type 3	2739	107	1	0	1	2507	96	1	0	1	2413	93	1	0	1			
		Type 4	2512	97	0	0	1	2299	88	0	0	1	2213	85	0	0	0			
		Wall Graze	2795	107	2	0	0	2558	98	2	0	0	2462	95	2	0	0			
		Spot/Column	2371	91	2	0	0	2171	83	2	0	0	2089	80	2	0	0			
		Type 1 Diffused	2488	96	1	0	1	2278	88	1	0	1	2193	84	1	0	1			
		Type 2 Diffused	2274	87	1	0	1	2082	80	1	0	1	2004	77	1	0	1			
		Type 3 Diffused	2163	83	1	0	1	1980	76	1	0	1	1906	73	1	0	1			
Type 4 Diffused	2197	84	1	0	1	2011	77	1	0	1	1936	74	1	0	1					
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
3,500	40	Type 1	4011	100	1	0	0	3672	92	1	0	0	3534	88	1	0	0			
		Type 2	3635	91	1	0	1	3328	83	1	0	1	3203	80	1	0	0			
		Type 3	3874	97	1	0	1	3546	89	1	0	1	3413	85	1	0	1			
		Type 4	3553	89	1	0	1	3252	81	1	0	1	3131	78	1	0	1			
		Wall Graze	3953	99	2	0	0	3618	90	2	0	0	3483	87	2	0	0			
		Spot/Column	3354	84	3	0	0	3070	77	3	0	0	2955	74	3	0	0			
		Type 1 Diffused	3519	88	1	0	1	3222	81	1	0	1	3101	78	1	0	1			
		Type 2 Diffused	3217	80	1	0	1	2945	74	1	0	1	2835	71	1	0	1			
		Type 3 Diffused	3059	76	1	0	1	2800	70	1	0	1	2695	67	1	0	1			
Type 4 Diffused	3107	78	1	0	1	2844	71	1	0	1	2738	68	1	0	1					
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
4,500	52	Type 1	4982	97	1	0	1	4561	88	1	0	0	4390	84	1	0	0			
		Type 2	4675	90	1	0	1	4280	82	1	0	1	4119	79	1	0	1			
		Type 3	4812	95	1	0	1	4405	86	1	0	1	4240	82	1	0	1			
		Type 4	4569	88	1	0	1	4183	80	1	0	1	4026	77	1	0	1			
		Wall Graze	5083	99	3	0	0	4653	89	3	0	0	4479	86	3	0	0			
		Spot/Column	4313	84	3	0	0	3948	76	3	0	0	3800	73	3	0	0			
		Type 1 Diffused	4526	88	2	0	1	4143	80	1	0	1	3988	77	1	0	1			
		Type 2 Diffused	4137	80	1	0	1	3787	73	1	0	1	3645	70	1	0	1			
		Type 3 Diffused	3934	76	1	0	1	3601	69	1	0	1	3466	67	1	0	1			
Type 4 Diffused	3996	77	1	0	1	3658	70	1	0	1	3521	68	1	0	1					

ISOLINE TEMPLATES 15' Mounting Height, 15' Grid Spacing



ELECTRICAL CHARACTERISTICS

Lumen Pack- age	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
2,500	26	120	50/60	0.2	0.1	0.1	0.1	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
3,500	40			0.3	0.1	0.1	0.1							
4,500	52			0.4	0.2	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
		15	25	50	60 (TM-21)	100	
4,500	25	95%	94%	90%	89%	83%	>60Khrs.
	40	93%	91%	84%	82%	73%	

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- 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

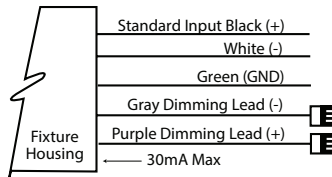
- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister 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
- 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 NFTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- 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 shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- 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 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.
- Occupancy Sensor shall programmable and 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
- The SCP enables any wall mounted luminaire, in excess of 30 watts, to meet California Title 24 requirements with integral 10KA surge protection for added reliability and serviceability.

For more detail: http://www.aal.net/products/sensor_control_programmable

- Hubbell Control Solution's wiSCAPE™ In-Fixture Module is a bi-directional wireless RF device that allows an individual fixture to be managed, monitored and metered. The wiSCAPE In-Fixture Module communicates wirelessly over a robust 2.4GHz ISM (Industrial, Scientific and Medical) certified meshed radio signal. The wiSCAPE Fixture Module drastically simplifies control and automation of projects, especially in retrofit environments, and challenges the legacy world of wired-systems. wiSCAPE wireless control technology easily adapts to complex automation situations for quick, simple and economical commissioning. The On-Fixture Module is compatible with A-25-7H option.

- 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.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

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.

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.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

Five year limited warranty (for more information visit: <http://www.hubbellingighting.com/resources/warranty/>)

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JOB	_____
TYPE	_____
NOTES	_____

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F, E and T are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downlight only, 3000K and warmer CCTs



Downlight only, 3000K and warmer CCTs



ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY1-15	15w, 1500 nominal lumens
CY1-25	25w, 2500 nominal lumens

CCT-CRI

27K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
4	25/25/25/25 Split, Down/Up/Side distributions must match
5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
PB*	Pencil Beam
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
-----	----------

BASE HOUSING FINISH

Standard Colors

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	Metallic Bronze
MG	Medium Grey
TT	Titanium
VBU	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Premium Colors

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM COLOR	Please provide color chip for matching

FASCIA FORM

F	Flat
R	Radius/Curved
T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
OPS	Open Panel Stainless Steel
OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
PPP	Perforated Panel Painted
PPS	Perforated Panel Stainless Steel
PPC	Perforated Panel Copper

Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
-----	---------------------------------------

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277)
DF	Double Fuse (208, 240)

Battery Backup not available with Triangle and Rounded Edge Fascia Forms.



ARCHITECTURAL AREA LIGHTING
17760 Rowland Street | City of Industry | CA 91748
P 626.968.5666 | F 626.369.2695 | www.aal.net
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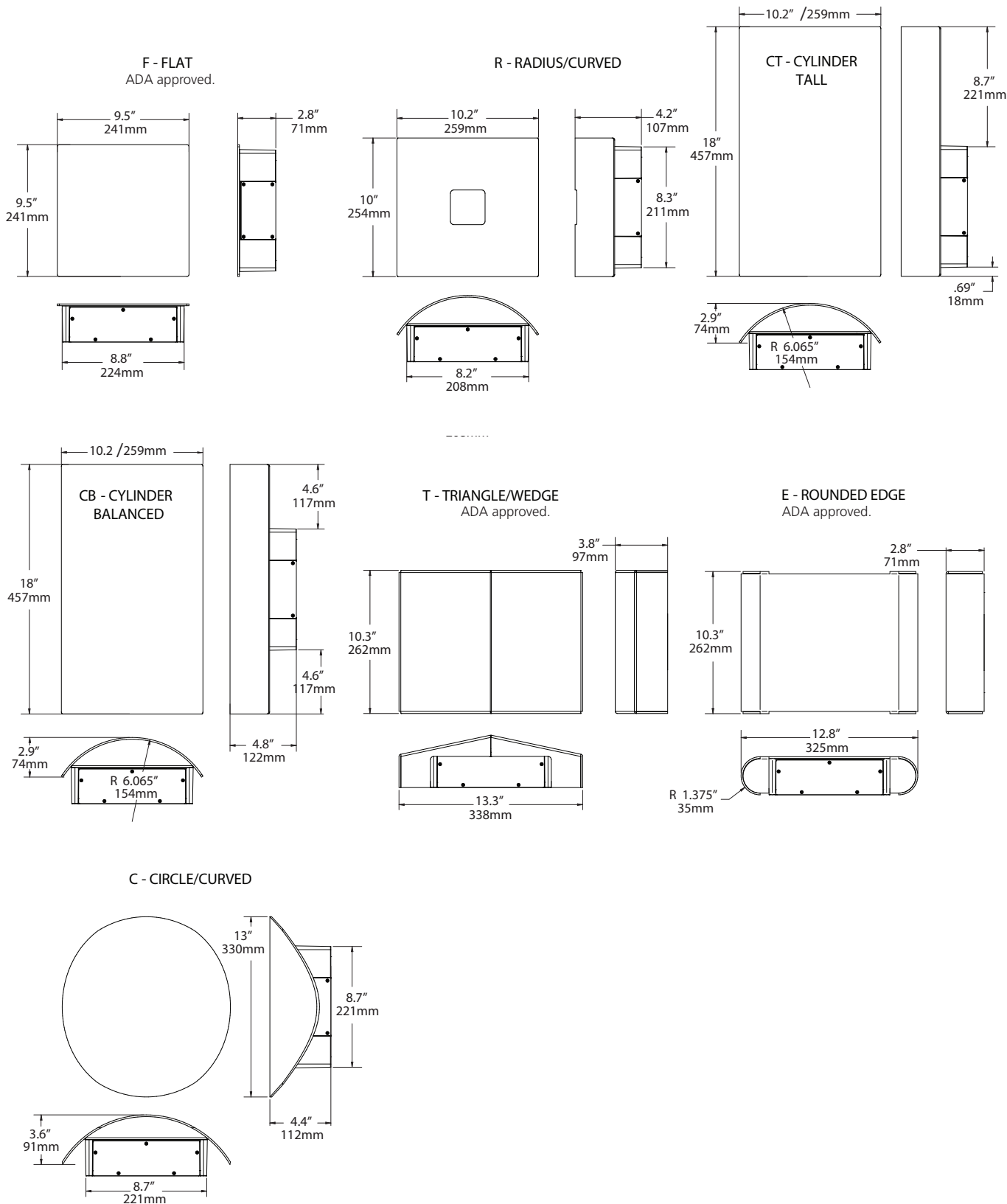
JOB _____
TYPE _____
NOTES _____

Distribution Matrix

FASCIA	DISTRIBUTION				
	1	2	3	4	5
	Down Only	50 Down/50 Up	90 Down/10 Up	25/25/25/25 Split	70 Down 10/10/10 Split
Window/Options Flat* F	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Window/Options Radius R	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Cylinder Balanced CB	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Cylinder Tall CT	I, II, III, IV, SP, WG	SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge* T	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge* E	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/ Curved C	SP, WG	SP, WG	SP/WG/PB SP, WG		
Ghost	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB

* ADA compliant for use in low mounting height applications (80 inches or less)
 2 Down/Up distributions must match
 4 Down/Up/Side distributions must match
 5 Top/Side distributions must match
 Contact factory for custom distributions

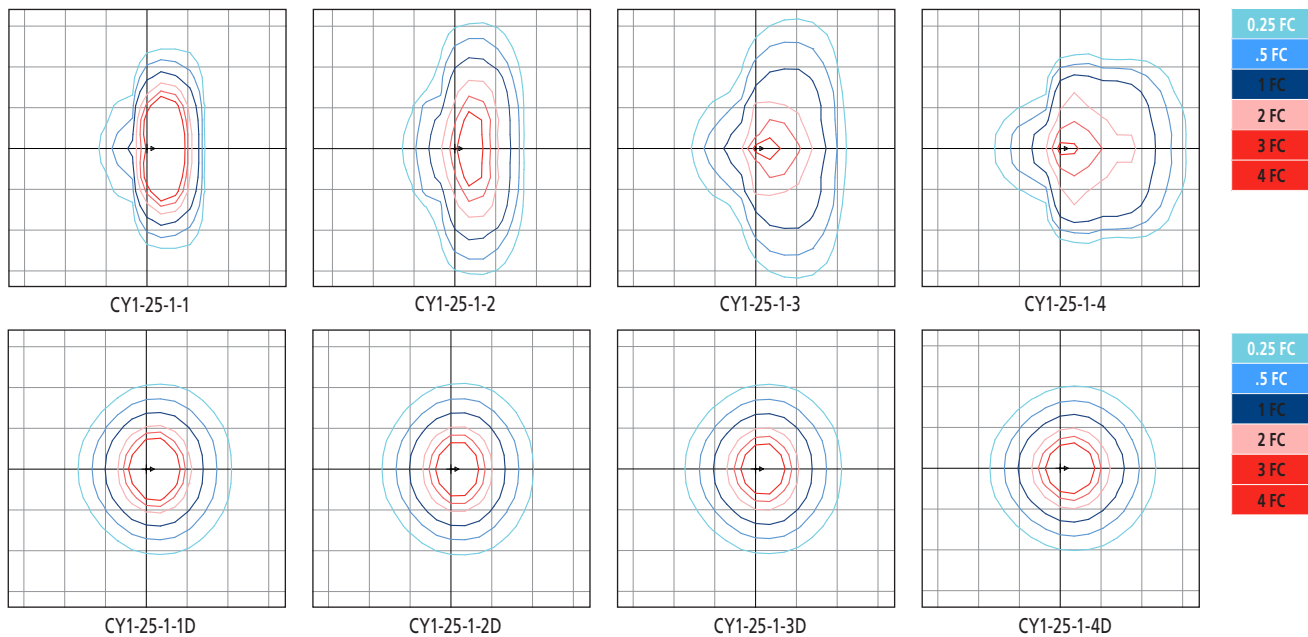
Drawings



LUMINAIRE PERFORMANCE

Downlight only			Configuration														
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)					Neutral White (4000K)					Warm White (3000K)				
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating		
			5000K 70 CRI					4000K 70 CRI					3000K 70 CRI				
1,500	17	Type 1	1923	113	0	0	0	1928	113	0	0	0	1825	107	0	0	0
		Type 2	1726	102	0	0	0	1730	102	0	0	0	1638	96	0	0	0
		Type 3	1750	100	0	0	1	1755	103	0	0	1	1661	98	0	0	1
		Type 4	1757	103	0	0	0	1762	104	0	0	0	1668	98	0	0	0
		Wall Graze	1971	114	1	0	0	1976	116	1	0	0	1871	110	1	0	0
		Spot/Column	1792	103	2	0	0	1797	106	2	0	0	1701	100	2	0	0
		Type 1 Diffused	1629	96	1	0	0	1634	96	1	0	0	1547	91	1	0	0
		Type 2 Diffused	1573	93	1	0	1	1577	93	1	0	0	1493	88	1	0	0
		Type 3 Diffused	1425	84	1	0	0	1429	84	1	0	0	1353	80	1	0	0
Type 4 Diffused	1602	94	1	0	1	1607	95	1	0	0	1521	89	1	0	0		
			5000K 70 CRI					4000K 70 CRI					3000K 70 CRI				
2,500	26	Type 1	2517	96	0	0	0	2524	97	0	0	0	2390	92	0	0	0
		Type 2	2233	85	1	0	1	2239	86	1	0	1	2120	82	1	0	1
		Type 3	2229	85	1	0	1	2236	85	1	0	1	2117	80	1	0	1
		Type 4	2319	88	1	0	1	2325	89	1	0	1	2201	85	1	0	1
		Wall Graze	2744	104	2	0	0	2752	106	2	0	0	2605	100	2	0	0
		Spot/Column	2471	94	2	0	0	2478	95	2	0	0	2346	90	2	0	0
		Type 1 Diffused	2344	89	1	0	1	2350	90	1	0	1	2225	86	1	0	1
		Type 2 Diffused	2062	79	1	0	1	2068	80	1	0	1	1958	75	1	0	1
		Type 3 Diffused	2050	78	1	0	1	2056	79	1	0	1	1946	75	1	0	1
Type 4 Diffused	2123	80	1	0	1	2129	82	1	0	1	2016	78	1	0	1		

ISOLINE TEMPLATES 10' Mounting Height, 10' Grid Spacing



ELECTRICAL CHARACTERISTICS

Lumen Pack- age	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
1,500	17	120	50/60	0.1	0.1	0.0	0.0	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
2,500	26			0.2	0.1	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
		15	25	50	60 (TM-21)	100	
2,500	25	98%	97%	94%	92%	87%	>60Khrs.
	40	95%	93%	89%	87%	80%	

SPECIFICATIONS

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- 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

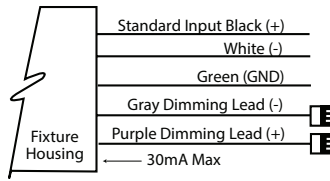
- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister 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
- 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 NFTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- 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 shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Button photocontrol for dusk to dawn energy savings
- PC12 for 120V, PC20 for 208V, PC24 for 240V, PC27 for 277V
- Photocell 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.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate 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.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

Five year limited warranty (for more information visit: [http:// www.hubbellighting.com/resources/warranty/](http://www.hubbellighting.com/resources/warranty/)

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

July 8, 2019

Portland Housing Development Corporation
Attn: Jay Waterman, Development Director
14 Baxter Boulevard
Portland, Maine 04101

Subject: Updated Traffic Evaluation
Front Street Redevelopment Update
Front Street – Portland, Maine

Dear Jay,

Gorrill Palmer (GP) is pleased to submit this summary of updated traffic information for the proposed Front Street Redevelopment project. The project proposes to raze existing affordable housing units and replace them with updated affordable housing units in semi-connected buildings. A “Traffic Forecast, Parking Assessment, and TDM Plan - Front Street Redevelopment – Portland, Maine” was completed in September 2017. It is our understanding the project is just now moving forward and an update to the September study has been requested by the City of Portland. The following summarizes the updated traffic information for the proposed Front Street Redevelopment project.

Site Uses

The existing site of the previous September 2017 study included 50 affordable housing units with a total of 182 bedrooms and 50 off-street parking spaces. In the 2017 study the redeveloped site was proposed to have a total of 100 affordable housing units, 221 bedrooms, and 100 off-street parking spaces, for an increase of 50 dwelling units, 39 bedrooms, and 50 off-street parking spaces.

Based on updated site information provided by the team, the redevelopment is now proposed to result in a total of 113 affordable housing units with 223 bedrooms and 113 off-street parking spaces, for an increase of 63 affordable housing units, 41 bedrooms, and 63 off-street parking spaces.

Trip Generation

The trip generation for the currently proposed site has been calculated using the same methodology as that used in the September 2017 study. The trip generation has been based on the Institute of Transportation Engineers’ (ITE) publication, *Trip Generation*, Ninth Edition, Land Use Code (LUC) 220 – Apartment. The trip generation for the proposed site has been based on 113 affordable housing units and is summarized as follows:

Weekday:	751 trip ends
AM Peak Hour:	58 trip ends
PM Peak Hour:	70 trip ends

A trip end is a trip into or out of the site, thus a round trip is equal to two trip ends.



Similar to the previously approved 2017 study methodology, since affordable housing units typically generate less traffic than market rate apartment units, the trip generation is then reduced by 50% due to previous trip generation counts in the City of Portland. The following summarizes the reduced proposed site trip generation:

Weekday:	376 trip ends
AM Peak Hour:	29 trip ends
PM Peak Hour:	35 trip ends

Trip Generation Credit

Since existing affordable housing units are being razed and they have been occupied within the last 10 years, a credit can be applied to the proposed site trip generation. The credit has been calculated based on 52 affordable housing units. The following summarizes the ITE trip generation for the credit:

Weekday:	346 trip ends
AM Peak Hour:	27 trip ends
PM Peak Hour:	32 trip ends

The same 50% reduction has been applied to the credit, since the existing units are also affordable housing units. The following summarizes the reduced trip generation credit:

Weekday:	173 trip ends
AM Peak Hour:	14 trip ends
PM Peak Hour:	16 trip ends

Net Trip Generation

The net trip generation for the proposed redevelopment is calculating by subtracting the reduced credit from the reduced site trip generation, and is summarized in the following table:

Net Trip Generation Summary

	Weekday	AM Peak Hour	PM Peak Hour
Proposed Trip Generation	376	29	35
Trip Generation Credit	173	14	16
Net Trip Generation	203	15	19

As shown in the table, the net trip generation for the site is forecast to be 15 trip ends during the AM peak hour and 19 trip ends during the PM peak hour. This level of trip generation does not require a MaineDOT Traffic Movement Permit since it is less than the 99 trip end threshold during a peak hour.

The net trip generation increase identified for the September 2017 study was 13 trip ends during the AM peak hour and 16 trip ends during the PM peak hour. **The net trip generation for the currently proposed site is 2 trip ends greater than the 2017 study during the AM peak hour and 3 trip ends greater than the 2017 study during the PM peak hour.** This increase is not anticipated to have a significant impact on the adjacent roadway network.



Crash History

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to classify as an HCL.

1. A critical rate factor of 1.00 or more for a three year period. A Critical Rate Factor (CRF) compares the actual accident rate to the rate for similar intersections in the State. A CRF of less than 1.00 indicates a rate of less than average; **and**
2. A minimum of eight crashes over the same three-year period.

The September 2017 study included an evaluation of MaineDOT crash data for 2014-2016, the most recent three year time period available at that time. Based on that data, there were two High Crash Locations (HCLs) in the vicinity of the site as follows:

- Washington Avenue from Bates to Galvin: 12 crashes, CRF of 1.73
- Washington Avenue from Presumpscot to Cummings: 12 crashes, CRF of 1.51

The crash data in the vicinity of the site has been updated to 2016-2018, the most recent period available. Based on a review of the data, there are three HCLs in the vicinity of the site as follows:

- Washington Avenue from Bates to Galvin: 12 crashes, CRF of 1.69
- Washington Avenue from Presumpscot to Cummings: 11 crashes, CRF of 1.35
- Intersection of Washington Avenue with Bates and Veranda: 37 crashes, CRF of 1.00

As shown, the two roadway segments were also HCLs in the 2014-2016 data. However, the CRF for Washington Avenue from Bates to Galvin has reduced slightly and the number of collisions for Washington Avenue from Presumpscot to Cummings has decreased by one. The intersection of Washington Avenue with Bates and Veranda is an additional HCL compared to the 2017 study and experienced three more collisions than the previous data as well as a CRF increase of 0.06.

As in the September 2017 study, it is our understanding that the City is exploring and completing improvements on the Washington Avenue corridor, which may impact any existing crash patterns. Additionally, due to the low increase in trip generation, the proposed redevelopment is not forecast to impact existing crash patterns.

Parking Evaluation

The forecast parking demand for the proposed redevelopment has been calculated using an existing parking use inventory for East Bayside PHA properties and other relevant studies GP has completed. The details of the inventory and studies are described in detail in the September 2017 study.

The parking inventory at existing PHA properties indicated a parking demand ratio within the off-street lots of 0.49 spaces per unit. The parking occupancy counts for various facilities in Portland indicate an average need for 0.48 parking spaces per apartment unit within the Portland Peninsula.



The September 2017 study identified a recommended parking ratio of 0.75 spaces per unit to achieve 100% capacity based on the parking demand studies and the implementation of the Transportation Demand Management Plan which yields a parking demand of 85 spaces. There are currently 114 off-street parking spaces proposed, which is forecast to satisfy the parking demand.

Neighborhood Concerns

It is the understanding of GP that no additional neighborhood comments on traffic have been received, so no update is required.

TDM Plan

No updates to the September 2017 TDM plan are required based on the currently proposed redevelopment.

Conclusion

Overall, the currently proposed Front Street Redevelopment project involves slightly more units than the September 2017 proposed redevelopment. However, the trip generation from these additional units are not anticipated to have a significant impact on the adjacent roadway network.

Please feel free to contact our office with any questions or to discuss in more detail.

Sincerely,

Gorrill Palmer

A handwritten signature in black ink, appearing to read 'Randy Dunton', written in a cursive style.

Randy Dunton, PE, PTOE
Project Manager

JN:3323.01
Project Description:Front Street Affordable Housing
Project Location:Portland, Maine
Date:6/28/2019

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

Apartment
Land Use Code (LUC) 220

Proposed
Dwelling Units:113

Average Rate								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.65 (X)	88	751	50%	50%	376	375	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	58	20%	80%	12	46	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	70	65%	35%	46	24	N/A
AM Peak Hour of Generator	T = 0.55 (X)	83	62	30%	70%	19	43	N/A
PM Peak Hour of Generator	T = 0.67 (X)	85	76	60%	40%	46	30	N/A
Saturday	T = 6.39 (X)	15	722	50%	50%	361	361	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	59	**	50%	30	29	N/A

* Percentages rounded to nearest 5%
** Not Available (Assumption)

Fitted Curve Equation								
Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.06 (X) + 123.56	88	808	50%	50%	404	404	0.87
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	59	20%	80%	12	47	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	80	65%	35%	52	28	0.77
AM Peak Hour of Generator	T = 0.54 (X) + 2.45	83	63	30%	70%	19	44	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 14.91	85	83	60%	40%	50	33	0.80
Saturday	T = 7.85 (X) - 256.19	15	631	50%	50%	315	316	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	66	**	50%	33	33	0.56

* Percentages rounded to nearest 5%
** Not Available (Assumption)

JN:3323.01
Project Description:Front Street Affordable Housing
Project Location:Portland, Maine
Date:6/28/2019

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

Apartment
Land Use Code (LUC) 220

Existing

Dwelling Units:52

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.65 (X)	88	346	50%	50%	173	173	N/A
AM Peak Hour of Adj. Street Traffic	T = 0.51 (X)	78	27	20%	80%	5	22	N/A
PM Peak Hour of Adj. Street Traffic	T = 0.62 (X)	90	32	65%	35%	21	11	N/A
AM Peak Hour of Generator	T = 0.55 (X)	83	29	30%	70%	9	20	N/A
PM Peak Hour of Generator	T = 0.67 (X)	85	35	60%	40%	21	14	N/A
Saturday	T = 6.39 (X)	15	332	50%	50%	166	166	N/A
Saturday Peak Hour of Gen.	T = 0.52 (X)	14	27	**	50%	14	13	N/A

* Percentages rounded to nearest 5%
** Not Available (Assumption)

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.06 (X) + 123.56	88	439	50%	50%	219	220	0.87
AM Peak Hour of Adj. Street Traffic	T = 0.49 (X) + 3.73	78	29	20%	80%	6	23	0.83
PM Peak Hour of Adj. Street Traffic	T = 0.55 (X) + 17.65	90	46	65%	35%	30	16	0.77
AM Peak Hour of Generator	T = 0.54 (X) + 2.45	83	31	30%	70%	9	22	0.82
PM Peak Hour of Generator	T = 0.60 (X) + 14.91	85	46	60%	40%	28	18	0.80
Saturday	T = 7.85 (X) - 256.19	15	152	50%	50%	76	76	0.85
Saturday Peak Hour of Gen.	T = 0.41 (X) + 19.23	14	41	**	50%	20	21	0.56

* Percentages rounded to nearest 5%
** Not Available (Assumption)



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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: Rte 26, Front St, Johansen St, Illsley St

REPORT PARAMETERS

Year 2016, Start Month 1 through Year 2018 End Month: 12

Route: 0026X	Start Node: 18737 End Node: 17040	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560302	Start Node: 13534 End Node: 13537	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560391	Start Node: 13538 End Node: 13552	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 0560403	Start Node: 13537 End Node: 13547	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560176	Start Node: 13551 End Node: 17039	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560599	Start Node: 13536 End Node: 13550	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560599	Start Node: 13550 End Node: 17038	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560609	Start Node: 13553 End Node: 13535	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0560609	Start Node: 13535 End Node: 13549	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560609	Start Node: 13549 End Node: 17037	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560307	Start Node: 13534	Start Offset: 0	☒ Exclude First Node

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: Rte 26, Front St, Johansen St, Illsley St

REPORT PARAMETERS

Year 2016, Start Month 1 through Year 2018 End Month: 12

	End Node: 13538	End Offset: 0	☒ Exclude Last Node
Route: 0560307	Start Node: 13538	Start Offset: 0	☒ Exclude First Node
	End Node: 17036	End Offset: 0	☒ Exclude Last Node

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Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
13535	13549	188333 Int of FRONT ST RANDALL ST	0 - 0.08	0560609 - 0.07 RD INV 05 60609	0.08	2	1	0	0	0	0	1	0.0	0.00006	5595.85 Statewide Crash Rate: 405.09	1485.58 405.09	3.77
13549	17037	188356 0503963 POR,ILLSLEY,RANDALL ST.	0 - 0.04	0560609 - 0.15 RD INV 05 60609	0.04	2	0	0	0	0	0	0	0.0	0.00005	0.00 Statewide Crash Rate: 405.09	1225.62 405.09	0.00
13534	13538	188331 Int of FRONT ST GALVIN ST	0 - 0.08	0560307 - 0 RD INV 05 60307	0.08	2	2	0	0	0	0	0	0.0	0.00004	15637.71 Statewide Crash Rate: 405.09	1080.18 405.09	14.48
13538	17036	188339 0503952 POR,ILLSLEY,GALVIN ST.	0 - 0.04	0560307 - 0.08 RD INV 05 60307	0.04	2	1	0	0	0	0	1	0.0	0.00003	10668.72 Statewide Crash Rate: 405.09	425.96 405.09	25.05
Study Years:		3.00		Section Totals:	1.54		53	0	0	2	8	38	18.9	0.02900	609.10	318.72	1.91
				Grand Totals:	1.54		139	0	2	6	26	100	24.5	0.02900	1597.44	443.71	3.60

July 9, 2019

Mr. Christian Roadman, Planner
City of Portland Planning Division
389 Congress Street, 4th Floor
Portland, ME 04101

RE: 95 Front Street Apartments- # PL-000672-2019
Response to Staff Comments

Dear Christian,

We are in receipt of your initial Staff Comments regarding the 95 Front Street Redevelopment project, and offer the following responses:

DPW Engineering (Mike Tremblay)

1. *(General): The bump-outs proposed for this project are not recommended by DPW. Bump-outs create additional maintenance that must be taken on by DPW, and represent challenges to turning vehicles. The Applicant should fill out curb extension applications (Christian R to provide) for each location (multiple curb extensions in a single location can be combined into one application). Curb extensions should be reserved for locations where pedestrian safety can be significantly improved; ADA ramps can be provided where they would not otherwise fit; at signalized intersections where pedestrian crossing distances can be significantly reduced; and where identified as part of a larger transportation plan. The Applicant is welcome to list any other reasons for wanting to provide bump-outs at each location. The Applicant is encouraged to submit a site plan with bump-outs removed, so ADA ramps within the sidewalk footprint can be evaluated.*

RESPONSE: The Applicant has completed and submitted a Curb Extension Application for three extension locations and continues to believe the extensions provide great benefit for the residents and neighbors in the Front Street neighborhood. As requested, the revised plans have eliminated all extensions except the midblock extension on the east side of West Presumpscot Street in front of the Community Center, where the proposed extension is critical to providing ADA access to this facility and also allows the existing power pole to remain in its current location. PHA's two most recent projects, Bayside Anchor and 58 Boyd Street, each with less pedestrian traffic than Front Street, have bump-outs at key crossing locations. Front Street residents deserve the same condition for their pedestrian safety.

- 2. (General): If any bump-outs are approved for this project, they should be properly sized. Bump-outs within a parking lane should extend no more than six (6) feet from the extension of the curb line; this frames the parking lane such that the bump-out does not extend as far as parked cars, adequately protecting the parking lane without constricting the travel lanes. Bump-outs at intersections should have appropriate radii such that the appropriate design vehicle (typically a large box truck) can make turns without crossing the centerline, and where a fire truck can make turns using the entire street width. The bump-outs on Front Street appear to protrude about 9 feet from the curb line.*

RESPONSE: We agree and if approved the bump-outs will meet this City Standard.

- 3. (General): The plans appear to show a raised crosswalk across West Presumpscot Street. DPW does not support the use of raised crosswalks on local streets.*

RESPONSE: We believe the raised crosswalk provides better visibility and safety for the pedestrian and acts as a traffic calming measure along West Presumpscot Street. We would propose a design that is compatible with emergency vehicle maneuvering. As requested, we have removed the raised portion from the revised

plans but would advocate for that improvement, or other surface treatment to highlight the mid-block pedestrian crossing for motorists.

4. *(Site Plan): Sidewalks are shown as 6 feet, with ~2 feet between the back of sidewalk and the property line. Sidewalks should be built for the entire width of the right-of-way, or should be designed as 5 feet wide with an esplanade between the sidewalk and curb (2 feet minimum, 4 feet preferred).*

RESPONSE: Agreed, we have shifted the sidewalk to the property line and added a landscaped esplanade between the sidewalk and curblane. We have made the correction on the revised Site Plans.

5. *(Site Plan): Parking signage on public streets shall be city standard.*

RESPONSE: We agree, and have noted such on the revised Site Plans.

6. *(Site Plan): At the small driveway leading to the 8-space parking area between Buildings 6 and 7 should be designed with the ADA sidewalk continuing through the driveway, and a driveway apron (10% max slope). Note that the sidewalk will need to be widened to the ROW line in order to provide an apron and a 5-foot pedestrian walkway. The pedestrian walkway should be no more than 2% cross-slope through the driveway.*

RESPONSE: We agree and have made the correction on the revised Site Plans.

7. *(Site Plan): New curb ramps are shown at the intersection of West Presumpscot and Issley streets. Where new curb ramps are proposed, the opposite curb ramps need to be reconstructed if they are not in compliance or in good condition.*

RESPONSE: We have revised the Site Plan to provide a new curb ramp at West Presumpscot Street only, as the sidewalk extension to Washington Avenue is only on the west side of West Presumpscot Street.

8. *(Site plan): The stabilized turf driveway between parking areas is not necessary, per PFD. This should be removed in favor of additional landscaping/screening.*

RESPONSE: We agree and have removed the stabilized turf area and bollards, and added additional landscape/ screening as requested.

9. *(Site plan): While 20% of spaces are permitted to be compact spaces, use of 8-foot compact spaces is discouraged.*

RESPONSE: The use of 8-foot wide compact spaces is allowed in the Technical Standards and we believe is appropriate for the compact spaces indicated on the Site Plan. Note, these will be signed and managed for compact vehicles.

10. *(Utilities): The extent of utility connections into West Presumpscot Street appear to be substantial. The Applicant should show the extent of roadway trenches and repair.*

RESPONSE: Extents of roadway trenches have been added to the utility plans, sheets C-4.1 and C-4.2

11. *(Utilities): There is a sewer easement on the east parcel, where light fixtures are proposed. Water Resources should confirm that light fixtures are not an issue in a sewer easement.*

RESPONSE: We have removed the light poles from within the sewer easement on the revised Site Plans.

12. *(Utilities): Some utility structures are located within the wheel path of vehicles. This should be avoided; if possible, utility structures should be placed along the curb line, within the centerline, or in the center of travel lanes so that they may be avoided by motorists, especially when the roadway is milled and utility structures are raised.*

RESPONSE: The proposed drain manhole at the intersection of West Presumpscot St and Front St has been shifted to the west to avoid the wheel path of turning vehicles. Other proposed structures are either catch basins located in the gutter or are proposed in-line with existing utilities, such as the sewer manhole on the centerline of West Presumpscot St.

13. *(Utilities): Verify that proposed storm drain sizes are appropriate. Note that the system currently drains to a CSO, so "oversizing" storm drain inlets is not necessarily inappropriate. Verify that utility crossings are possible given pipe sizes.*

RESPONSE: Storm drain sizes are currently based on engineering judgement and best practices; final sizes will be verified during final design. Test pits of existing utilities in the locations of proposed crossings will be completed during final design or in the very early stage of construction, before structures are ordered. The design will be adjusted/adapted based on test pit results. See plans for proposed test pit locations.

14. *(Utilities): If bump-outs are removed or altered, reconsider catch basin locations.*

RESPONSE: Proposed catch basins upstream of the raised crossing on West Presumpscot St have been removed.

15. *(Grading): Spot grades are required to verify drainage, driveway dimensions, and ADA conditions. Please provide spot grades at high and low points, points of inflection, the top and base of curbs at regular intervals (including at inflection points at tipdowns and ramps), and anywhere else where they may be helpful.*

RESPONSE: Spot grades have been added to the plans to clarify conceptual grading and drainage. We recognize the importance of providing detailed grading to achieve ADA-compliance at ramps and driveway crossings, and will provide additional spot grades during final design

16. *(Grading): Are any curbs being removed and reset? If so, curbs should be reset in a concrete foundation; DPW can provide detail if necessary.*

RESPONSE: Curbing will be mostly new because the area currently has bituminous curbing. New and reset curbing will be set in concrete

FIRE DEPARTMENT (Robert Thompson)

1. *The main entrance of each building must be the address for the property as approved by the City E-911 Addressing Officer.*

RESPONSE: We are working with the City E-911 Addressing Officer on designated addresses for all buildings and apartments.

2. *Please verify on-street parking will be limited to the North side of Front Street. Parking on both sides of the street would greatly impede, if not eliminate, access to emergency apparatus.*

RESPONSE: We would propose to leave on-street parking on both sides of Front Street as currently exists, but work with the City on eliminating some parking at the intersection of Front and West Presumpscot Streets to allow adequate emergency vehicle maneuvering. The proposed new entrance to Payson Park will need parking on the South side of Front Street.

INCLUSIONARY ZONING CONDITIONAL USE (Victoria Volent)

1. *The applicant has satisfied the Inclusionary Zoning requirement that all developments of ten or more units comply with the requirements set forth in Division 30, Section 14-487 of the Zoning Ordinance.*

RESPONSE: No response required.

CIVIL PEER REVIEW (Lauren Swett)

1. *The Applicant has provided a stormwater narrative, but has not yet provided their calculations for stormwater quality/quantity analysis. The design will be reviewed when the information is provided. One specific design item that I'll be reviewing with the calculations is the method of overflow from each of the individual stormwater treatment areas. Surface overflow to neighboring properties, sidewalks, etc. is not generally acceptable. I'll review the grading relative to their stormwater design.*

RESPONSE: The revised stormwater narrative contains Hydro CAD peak flow calculations for pre and post development conditions. All Focal Point and bioretention cell systems will overflow to field inlets or catch basins with beehive grates. For a 25-year storm, the watershed with the highest runoff rate has a peak runoff rate of 2.6 cfs. The beehive inlet grates will be Neenah Foundry R-2561 grates or similar, which have a capacity of nearly 6 cfs with 6" of head. All Focal Point and bio-retention areas will have 6" of freeboard between the catch basin rim and spillway/overflow. Overflow from the pervious pavers will be directed towards the grate of the adjacent Focal Point (#4).

2. *The plans should provide additional clarity on the types of stormwater treatment used throughout the site, distinguishing between Focal Points and other under-drained soil filters. The plan should show the location and size of the R-Tanks, locations of all access structures, and the extent of the Focal Point versus rain garden should also be shown. I think that some of the terminology (rain garden, under-drained soil filters, bioretention, Focal Point) is used interchangeably, and the specific systems should be clarified.*

RESPONSE: These terms have been clarified in the stormwater narrative and on the plans. The R-Tanks are shown schematically; final design plans will depict the final configuration of the R-tanks, as well as the limits of Focal Point material and conventional bio-retention cell material.

3. *Roof drains are shown daylighting into the stormwater treatment areas. Erosion protection should be provided at these locations.*

RESPONSE: Agreed - stone energy dissipation areas have been shown at all roof drain outlets.

4. *The Applicant noted in their narrative that they will be increasing flow from the pre-development condition to the post-development condition, and has noted in the narrative that a waiver of the Flooding Standard will be required. This waiver request should be added to the waiver form. Once the calculations are provided, we'll review the acceptability of the waiver relative to size of infrastructure between the project and the Back Cove outfall.*

RESPONSE: The revised stormwater management narrative includes pre and post development stormwater calculations.

5. *It is my understanding that the Applicant has been discussing the proposed separated storm drain infrastructure directly with the Department of Public Works, and what is shown is in conformance with what the City has reviewed.*

RESPONSE: That is correct. We will continue to refine the design to best meet the City of Portland's needs and standards

TRAFFIC REVIEW (Tom Errico)

1. *The Applicant has reissued the 2017 traffic impact study prepared for the previous project. I would suggest the Applicant provide a letter update as it relates to Crash History, Trip Generation and Parking, and any other changes that should be included from a traffic review perspective (driveway compliance – sight distance/location/number; Neighborhood Traffic Management; etc.). This does not need to be a full redo of the report, just updating information to reflect current information and conditions. If the Applicant needs further guidance, please have them contact me.*

RESPONSE: An updated letter from Gorrill-Palmer has been prepared and will be submitted as part of this Application.

CITY ARBORIST (Jeff Tarling)

1. *Street trees @ landscape - We can work with the project team as the project evolves to make sure the location and types of street trees are in the best location in respect to their grow site and the overhead utilities. From the landscape plan view this looks good as shown in regards to planting location and species selection before the final plan we would want to take a close look in regards to any other changes that might affect the proposed tree & landscape plantings. A site walk would be recommended.*

RESPONSE: We agree and will continue to work with Jeff on the final tree selection and location.

2. *Off Site Improvements - The project location across the street from Payson Park makes this site an ideal location. Historically, the Front Street frontage and entrance to the park along with easy access is underdeveloped. Portland Parks & Recreation is interested in partnering with the project team to improve the front street access into to the park and expand the community garden to better connect the residents of the project to the park. Items might include - generating a concept plan for the Front Street edge, sidewalk or walkway improvements to better facilitate all season access. A hard surface path connecting to the nearby playground path for example would be beneficial.*

RESPONSE: We are continuing to work with the City Parks and Recreation Department on defining an entrance to Payson Park from Front Street, as well as access to the Community Garden and other Park amenities. Our understanding is that these improvements will be funded and undertaken by the Parks Department, not as part of this project.

URBAN PLANNER (Caitlin Cameron)

Standard (1) b. Internal Design Character and Relationship to the Surrounding Neighborhood

1. *Form and Scale: The project strategically varies the massing of the multi-family buildings between three and two-story units and roof form variations to break the larger buildings into a scale similar to the surrounding residential forms. The standard calls for variation in roof and façade character which these designs successfully deliver. **What rationale determines the placement of the three-story masses and the two-story masses? Staff are still trying to evaluate whether the specific massing placement is successful in relationship with the overall streetscape. Is the rhythm and pattern of massing appropriate? Some images that render the proposal in the context (aerial or street view) might be helpful.** In some cases, the massing variate appears to replicate the proportions and rhythm of multi-family buildings nearby (triple-deckers and double triples). This is most successful at West Presumpscot and Illsley Streets.*

RESPONSE: The team looked carefully at the surrounding neighborhood and landed on a massing strategy that we believe is most responsive to the scale variation in the neighborhood while keeping our density at the level it needs to be. In the attached submission we have provided a bird's-eye view of the neighborhood with call outs to explain the massing logic. In essence we have developed all three phases differently based on their relative location in the context. Phase 1 is proximate to much of the existing neighborhood fabric which varies between 2 and 3 stories. The design is responsive to this existing scale and attempts to place the three story massings in locations that either have similar adjacent height, such as at the corner of Illsley and West Presumpscot, or have generous tree buffers/open space directly adjacent. Phase 2, senior housing, is our largest building and is placed strategically along Front Street where it is furthest from the existing homes on Illsley and closer to the larger scaled existing senior housing and Payson Park. The Phase 3 townhomes are all two stories in height and very similar to the existing Kiley home (to be removed). We feel the townhomes are the best scale to share a "back yard" with the existing Illsley residences.

2. *Character: The overall design character is cohesive. Multi-family buildings should not be expected to mimic single-family homes, however, **some cues or references from the surrounding vernacular could be better incorporated into the design - the buildings do not feel very residential in character.** Though the buildings in the context vary quite a bit in style, scale, form, and era, there are certain features that add a fine-grain texture to generally simple buildings – simple material palette with clapboard/shingle, porch and railing details, overhanging cornice lines and trim – that add articulation and a residential character that is currently lacking in the Phase I and Phase III designs. Some suggestions: reconsider the window proportions and treatment, add detail/articulation to the stoops, articulate the rooflines or windows.*

RESPONSE: The project does not attempt to recreate the existing neighborhood, rather it aims to be a thoughtful compliment to it through a contemporary version of simple Maine vernacular and regionally appropriate material systems. The team has carefully adopted many cues from the existing neighborhood as well as the greater Portland region. The existing neighborhood currently uses a wide variety of materials, forms, colors and accents. Primary materials in the neighborhood are generally made up of clapboard siding, shingle siding and the occasional outlier of board and batten siding on ancillary shed or outbuildings. The project deploys each of these material strategies in a way that breaks down the perceived scale of the project while also relating back to the neighborhood's general material qualities. Details such as primary window proportions and covered porches at residential entries all recall the existing attributes of the existing neighborhood. Accent materials and colors adjacent to windows also recreate the façade composition of traditional shutters without the pitfalls of plastic replicas. We do occasionally depart from neighborhood norms in accent areas intended to help maximize project variation and richness. This most typically occurs at the three-story bump ups in Phase 1 where we use board and batten siding (more common to the region than the neighborhood) and window proportions intended to lighten the form of those volumes while allowing generous ventilation and daylighting to those units. In the submission we have provided a survey of the existing neighborhood scale materiality and details which reinforce the project uses of each.

3. *Façade Composition: Two- and three-story heights are an appropriate scale for this neighborhood. The proportion of the three story and two-story masses are very different in height – the three-story forms feel top-heavy. More information is requested regarding the design decision about window size, proportion, and placement– again, are these window types, sizes, proportions found in the neighboring context?*

RESPONSE: Since our last submission we have addressed this issue through a study of color and its effect on general massing and the relative weight of each part of the building. We feel that by grounding the base of the building in a more saturated color and using a more recessive color as well as supplemental accent colors on the three-story masses we have successfully lightened the effect of these volumes.

Standard (1) c. Recreation and Open Space

1. *External buffers: To some extent, the project provides landscaping buffers between surface parking areas and neighboring properties with fence, trees, and arborvitae. The applicant does not extend the screening for the whole stretch of the property line and instead relies on meadow plantings for this buffer. Staff suggest additional screening may be needed between the surface parking areas and the neighboring residential properties.*

RESPONSE: We will continue to review the landscape buffers between the development and adjacent residential neighborhood. We have indicated screening and/or fencing in areas where the parking lots are directly adjacent to the neighboring properties to provide screening from headlights on the revised Landscape Plans.

2. *Internal buffers: Units have a front yard buffer with setback, stoops, and plantings between living space and walkways/streets. A street tree is provided in front of some units between the building and the street. In most cases there is a landscape buffer or street between each building. Buildings 6 and 7 do not have the required privacy between the back of the units and the surface drive and parking. Staff request the Planning Board weigh in on whether additional efforts should be made to provide internal buffers between these units and the parking area.*

RESPONSE: The driveway between Bldgs 6-7 does not allow significant separation and buffering between the drive aisle and buildings, however the driveway has been located such that a 4 ft landscaped area exists at Building #6 and a 5 ft landscape separation is proposed between the driveway and Building #7.

3. *Passive recreational open space: Lawn, tree bosque, and some landscape seating areas at the community centers are provided throughout the site. However, staff suggest the standard would be better met if more amenities for passive use are provided and in multiple locations/conditions. For*

example, seating in both sun and shade in the corner open space which currently is only designed to walk through. Gardens would be another alternative.

RESPONSE: We believe appropriate levels of active and passive recreation space have been provided throughout the project. Passive seating areas are located at both Community Centers as well as the playground area. The open space corner at Front/ West Presumpscot is left open to allow a variety of uses to be programmed in this space, including art shows, music concerts, and picnics. Community Gardens exist directly across Front Street, and we have discussed working with the City on expansion of this facility with some guaranteed availability for Front Street residents.

4. *Active recreational open space: A playground and recreation lawn areas are provided. There will also be a pedestrian connection to the neighboring Payson Park.*

RESPONSE: Agree, no response required.

5. *Private open spaces: Most units have stoops and small planted areas adjacent to their frontage. Staff suggest that some design features could be added to these stoops to make them more enclosed and comfortable for use – side partitions, railing, trellis, etc.*

RESPONSE: The team reviewed the stoops along the ground floor and added design features to encourage them feel more enclosed and private. A trellis was added to the planter which holds the edge of each stoop. Columns have also been added to support the roof over the entries to enhance the sense of enclosure. A perspective view of the ground floor unit entries has been updated to reflect our intent.

Please review the responses and supplemental information and contact me if you have any questions or need additional information. We continue to believe in working together towards a successful project, and look forward to your final comments and presentation to the Planning board.

Regards,
CARROLL ASSOCIATES



Patrick J Carroll, Principal

Att.

CC: Jay Waterman, PHA
Michael LeBlanc/ Evan Parkinson, Utile
John Mahoney, Ransom Consulting

**Construction Management Plan
Front Street Housing Redevelopment, LP
95 Front Street Apartments
July 9, 2019**

A construction management Site Plan will be prepared by the Project Construction Manager once selected and submitted for approval prior to issuance of a Building Permit.

The Construction Management narrative and plan depict the overall planning, coordination, and control of a construction site, including phases as applicable, from beginning to completion. The goal for the plan is to support a safe construction site and protect the public safety, accessibility (including preserving accessible pedestrian, bicycle, and vehicular modes of transport throughout the city), and welfare during construction. In addition, the construction management plan shall minimize construction impacts in their duration and magnitude to the surrounding area and develop an effective communication process for resolving concerns and conflicts.

A. Construction Management Principles

The following narrative provides an overview of the construction management principles that Front Street Housing Redevelopment, LP and its contractor have identified to minimize impacts from the construction, such as noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding building and communities.

The following details define the intended approach to the successful management of the project construction and the construction management plan will address the general conditions contained below.

B. Development Review of Construction Management Plan

Front Street Housing Redevelopment, LP and its contractor shall submit a construction management plan that provides a comprehensive logistics and safety program for the construction project, which will be reviewed and approved as part of the site plan review process. Minimizing impacts to areas surrounding the building/construction site will be primary considerations in the process.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, Front Street Housing Redevelopment, LP and its contractor shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General requirements and enforcement of Portland's Land Use Code.

Other permits, as applicable, include:

1. **Street Opening Permits:** A street opening permit will be required for all subsurface utility connections within Front and West Presumpscot Streets (including water, sewer, gas, electric/communications, storm drainage, and curb extensions). Schedule and duration of work are unknown at this time.
2. **Blasting:** No blasting is anticipated for this project.

D. Construction Administration and Communication

Front Street Housing Redevelopment, LP and its contractor will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager 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.

1. Contact Person and contact information for the Front Street Housing Redevelopment, LP and its contractor and who is available 24 hours.
Contractor and contact person: TBD
Developer/owner contact person: - Front Street Housing Redevelopment, LP
Jay Waterman 207-221-8009
2. Contractor will have a project sign with the contact information.
3. Phone numbers will on sign and available for issues at all times of day during the construction period
4. All construction site signage is temporary and shall be removed at project completion.

E. Construction Schedule

1. The contractor shall submit a schedule or time line for the construction project, including any Phasing.
Construction schedule TBD pending available funding.
2. Hours of Construction: **7:00 AM – 7:00 PM Monday – Friday. Construction activities shall start no earlier than 8:00 AM on Saturdays, Sundays or Holidays.** Construction may occur during the daytime hours as defined in Section 17-18.
3. There is no anticipation of night work on this project.
4. All deliveries for materials will comply with the noise requirements listed above or will be restricted to the hours allowed for construction.
5. Material Deliveries: Schedule and designated location for delivery of materials and boxed goods.
Deliveries may only occur during normal hours of construction and must be taken on-site.

F. Security & Public Safety

1. The site construction fence will be placed either on the property line, at back of curb, on adjacent land (where licensed) as depicted on the plan to allow for construction equipment to access the exterior walls of the building and for adjacent site work.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16.
3. Demolition of the existing buildings and other associated site items will occur. A demolition fire safety program is needed and will be prepared and supplied when a contractor is selected.
4. Front Street Housing Redevelopment, LP and its contractor shall develop a fire safety and emergency protocol plan and contact the nearest Fire Station to advise them of the ongoing construction project.
5. 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.
6. Any proposed temporary security lighting shall be shown on CMP and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. **Construction Activity in Public Streets:** Will only occur when making connection to utilities within the adjacent street and when new curbing is set and curb extension constructed. All required permits will be obtained at the responsibility of the general contractor. Traffic and bicycle flow will be maintained and controlled as necessary for this work to occur.
2. **Sewer and Stormwater:** All sewer and stormwater water system connections will be per the City's requirements/standards and 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.

Other utilities: All other utilities (gas, water, underground electric/communications) will be per the utility provider requirements/standards. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works.

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. Projects that will occur along arterial and or collector streets are required to submit a satisfactory 'maintenance of traffic' (MOT) plan prior to any site plan, subdivision, or street opening permit approval. MOT plans may be required for projects that have impacts on local streets.

Maintenance of Traffic (MOT) plans shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, applicants may be allowed to close a street and/or detour a mode of traffic when absolutely necessary for safety. 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 are an obstruction to bicycles or pedestrians.
- Flaggers will be used during utility connection within the adjacent streets.
- No police detail or lighted intersections are anticipated for this project.

All existing modes of travel in 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 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.

- Front, Illsley and West Presumpscot Streets: Both bicycles and pedestrians will be alerted that the sidewalks along the project frontage will be closed for close to the duration of the construction.
- When the sidewalks along the project frontage are demolished, then there will be no sidewalks on the Phase 1 side of Front, Illsley and West Presumpscot Streets. Therefore no additional signage is proposed. It is proposed that at least one lane of traffic will be kept open at all times during work hours and two lanes will be kept open during non-work hours/overnight. When traffic is reduced to one lane, flaggers will be onsite to direct traffic.
- Typical construction fencing will be used to secure the site. Alternate sidewalks are available on the other side of the adjacent streets.
- ADA compliance 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. Front Street Housing Redevelopment, LP and its contractor shall apply for the necessary permits.

H. Site Management and Controls

The final Construction Management Plan will address maintaining the site in a safe condition and will include the following:

1. Regular trash and debris removal
2. Street cleaning and damage controls
3. Dust controls: The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 2).
4. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code (Attachment 1) and Section 25-129 on Noise, dust and debris Attachment 2).
5. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - 1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
 - 2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or site lines with the piles of snow.
 - 3) Clear all walks & ramps with the work zone
 - 4) Sand or Salt as needed
 - 5) Clear all basin or drainage to help snow melt
 - 6) This would include Monday-Friday Sat/Sunday/Holidays

I. Erosion Control and Preservation of Trees

1. Front Street Housing Redevelopment, LP's selected contractor shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan 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 significant storm events, and maintain any installed temporary or permanent stormwater management systems in 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 or the U.S. Environmental Protection Agency upon request.
2. Front Street Housing Redevelopment, LP's selected contractor shall maintain all tree and landscaping preservation measures as depicted on the landscaping plan within the area of construction.
3. The storage of materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Construction Management Plan depicts locations of the material staging areas, the location on onsite temporary construction job trailers, the location on onsite truck delivery/holding areas, the location onsite parking, the general location of the construction security fence, temporary toilets and their enclosure, and the general location of temporary construction dumpsters.
2. Delivery Truck Holding Areas: The delivery holding area is shown on the plan and shall not be blocked during construction. 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 the trucks until they can be unloaded. Once at the site all vehicles

well be brought within the fence line and will make every attempt to avoid queuing on public streets.

3. Delivery Truck Holding Areas Off-Site: In the event that adequate on-site area for holding of trucks is not available, an off-site marshaling area will be utilized for trucking. Any designated off-site location will be identified in the construction management plan.

K. Parking During Construction

1. Construction Parking: Parking for construction workers is provided on site. If it is found that more parking is required separate arrangements for off-street parking at an off-site location shall be provided (at one of the many nearby garages or public parking lots).
2. Parking: Any existing paved parking area is being demolished and falls within the proposed new building footprints.
3. Truck Routes and Volumes: The Construction Management Plan shall address the designated truck routes and expected truck volumes. All deliveries to the site shall be via West Presumpscot Street. All deliveries will be made on site within the secure construction fence. Delivery volumes will vary depending on construction sequencing but will only occur during allowable hours of operation.

L. Special Measures as Necessary

For construction work that will take place over a long period (e.g. 12 months or more), involve major demolition/deep excavation/ piling and/or special construction techniques, or are located near sensitive uses e.g. medical care facilities, schools), the Construction Management Plan should provide details and demonstrate that all appropriate special measures have been taken to avoid, minimize, or possibly compensate for potential impacts. This may include taking baseline measurements before construction, such as arranging to photograph the foundations of nearby properties upon consent of the owners, in order to assess any future impacts of vibration, noise, etc.

No special measures of construction are anticipated for this project.



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14 Baxter Boulevard
Portland, ME 04101

Office: 207-773-4753
Fax: 207-761-5886

April 11, 2019

Christian Roadman, Planner
Planning Division
389 Congress Street
Portland ME 04101

Subject: Neighborhood Meeting Certification

I, Jay Waterman, Director of Real Estate Development for the Portland Housing Authority, hereby certify that a neighborhood meeting was held on April 11, 2019 at 34 West Presumpscot Street in the Front Street Community Center at 6:30 PM for proposed project located at 95 Front Street in Portland's East Deering neighborhood.

I also certify that on April 3, 2019, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division. This included all property owners within 500 feet of the proposed development.
2. Residents on the 'interested parties' list.

Invitations were also emailed to all those that have signed up for the Front Street Redevelopment interested parties list at the four other neighborhood meetings.

Sincerely,

Jay Waterman
Director of Real Estate Development

Attached to this certification are:

1. Copy of invitation sent
2. Sign-in sheet
3. Meeting minutes

NOTICE OF INTENT TO FILE

Portland Housing Authority is intending to submit an Application for Level III Site Plan and Subdivision Review for the City of Portland on or about May 11, 2019.



For more information please contact:

The proposed project envisions replacement of the Front Street Development in three distinct phases resulting in approximately 105 new apartments ranging from 1-BR to 5-BR in size, 12 condominiums, a multi-purpose community center, and major site improvements including off-street parking and dedicated open space.

Jay Waterman
Portland Housing Authority
jwaterman@porthouse.org
207-221-8009

or City of Portland Planning Authority
Department of Planning and Urban Development
<http://portlandmaine.gov/314/Planning-urban-development>

Front Street Neighborhood Meeting Sign-In

April 11, 2019 6:30PM

	Name	Street Address	email
1	Chayla Serna	PNA	
2	Kadiatu Moriba	24 Prampsct St	sowabady@yahoo.com
3	ALLAN DREW	26 JOHANSEN ST.	AKDREW@Gai.NET
4	Khalil Mohamed	49 Front Street	yazankhailhorse@yahoo.com
5	Raad Almorab	47 FRONT ST	
6	Nyambach Lia	57 front st	
7	Shama Harjeen	56 Illsely St	albudrimarwah@gmail.com
8	Alsha Ali	interpreter	-
9	John Weisman	22 Galvin St	email.
10	Ubah Abdi	44 CUMMINGS ST	
11	Thanna Gato	39 Front st.	thannagato@gmail.com
12	Mike Pomerleau	25 Galvin St	micheal.pomerleau@hotmail.com
13	Shukri Adam	42 cummings st	adan.shukri40@gmail.com
14	Erica Klein	14 Oakley St	
15	Chris W. Padomiro	93 Front St.	
16	Regina Gato		
17	Susan Cole	77 Randall	scole001@hotmail.com
18			
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Front Street Neighborhood Meeting Sign-In

April 11, 2019 6:30PM

	Name	Street Address	email
1	Nancy Habimana	42 Illsley St	
2	Tahseen	53 Front Street	
3	Clifford Murrell	36 ILLSLEY ST	PORT
4	Carleigh Boston	14 Baxter Blvd	createchange.wcar@gmail.com
5	MARYANNE FAPI	581 WASHINGTON AVE	
6	D Barker	32 John Peter St.	
7	Ralph Adams	19 Johansen St	
8	Mary Ben	48 Illsley St	
9	Fadumo Hassan	43 W Presumpscot	
10	Justin Lamontagne	922 Baxter Blvd. Portland	
11	Crystal Gault	33 Pembroke St.	rouseportland@gmail.com
12	Jamie Harden	" "	
13			
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Present

Jay Waterman (JW), Cheryl Sessions (CS)—Portland Housing Authority
Michael Leblanc (ML), Evan Parkinson (EP) — Utile
Pat Carroll (PC) — Carroll Associates

Distribution

All present

Front Street Development
Community Meeting

Overview of Project and Redevelopment Proposal

JW presents

- Gives overview of PHA as an organization, states Front Street property's physical needs and explains the property is at the end of its useful life.
- PHA is currently applying to grants from HUD
- Currently considering the project to be completed in 3 phases
- Phase 1 to house family-style units, intended to house the needs of current residents, 60 units
- Phase 2 for senior-living, 45 units
- Phase 3 affordable home ownership units, 8 units

PC presents

- Gives overview of site organization; providing street frontage or pedestrian-way frontage for units to have sense of address
- Describes different types of outdoor spaces organized around the project intended for varying uses
- Team is aiming to work with parks department to improve pedestrian connection to Payson Park
- Traffic calming on West Presumpscot Street – strong pedestrian connection between the two lots

ML presents

- Emphasizes importance of organization to provide safe spaces that will welcome the adjacent community
- Describes façade and massing strategies of different buildings throughout the project through perspective views

Project Schedule and Relocation

JW presents

- Submitting site plan application in May
- Planning board workshop in 2-3 weeks

- Another public meeting will be announced where PHA will present comments from the planning board
- Planning Board public hearing tentatively in August
- Explains project phases – all residents on east parcel will be temporarily relocated while phase 1 is constructed (section 8 voucher); will have choice to come back after construction is complete or use section 8 voucher to live elsewhere
- Explains development becomes private entity, allowing for choice mobility

Comments/Feedback

- (didn't hear name) Confusion in explanation of number of bedrooms vs number of units data
 - JW explains PHA is adding smaller units to meet demand; team will clarify data better in future meetings
 - Audience member: "Portland's greatest need is for more affordable housing."
 - Audience member questions why some units are market-rate.
- (didn't hear name) Would like more details of large units. Are there multiple levels and where are the bedrooms?
 - ML – explains that most large units will be duplex units, with internal stair. Bedrooms located on upper level of unit
- (didn't hear name) How many large units will be built (in Phase 1)? How many are there now?
 - EP – (4) 4-bedroom units & (4) 5-bedroom units are proposed. There are (18) 4-bedroom units and (7) 5-bedroom units on site now.
- (didn't hear name) Are units accessible?

Architecture
& Planning

115 Kingston St.
Boston, MA 02111
(617)423-7200
utiledesign.com

- JW – PHA is providing the required number of accessible units through ground floor units
- (didn't hear name; works as teacher at Presumpscot Elementary) In temporary relocation, can children stay at their school?
 - JW – PHA is working with schools for kids to stay in the same schools throughout redevelopment. PHA responsible for transportation costs.
 - Audience member expresses concern that there are a lot of children in neighborhood who will be affected by relocation.
- (didn't hear name) Expresses concern that there will not be enough large units in redevelopment.
 - JW – PHA did study of how units were used 1 year ago and determined the mix of units
 - Audience member thinks PHA should revisit study as family situations could have changed in that time.
- (didn't hear name) Concern for residents being relocated to stay part of neighborhood
 - JW – PHA will reach out to landlords to keep families within the same neighborhood. PHA looking into hiring relocation specialist.
- Questions regarding relocation
 - JW – reiterates phasing process. If you live on east parcel, you will be temporarily relocated.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

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14 Baxter Boulevard
Portland, ME 04101

Office: 207-773-4753
Fax: 207-761-5886

July 3, 2019

Christian Roadman, Planner
Planning Division
389 Congress Street
Portland ME 04101

Subject: Neighborhood Meeting Certification

I, Jay Waterman, Director of Real Estate Development for the Portland Housing Authority, hereby certify that a neighborhood meeting was held on July 2nd, 2019 at 34 West Presumpscot Street in the Front Street Community Center at 6:30 PM for proposed project located at 95 Front Street in Portland's East Deering neighborhood.

I also certify that on June 21, 2019, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division through this project's Citizen Self Service application website. This included all property owners within 500 feet of the proposed development.
2. Residents on the 'interested parties' list.

Invitations were also emailed to all those that have signed up for the Front Street Redevelopment interested parties list at the five other neighborhood meetings.

Sincerely,

A handwritten signature in black ink, appearing to be "Jay Waterman".

Jay Waterman
Director of Real Estate Development

Attached to this certification are:

1. Copy of invitation sent
2. Sign-in sheet
3. Meeting minutes



Neighborhood Update Meeting Front Street Re-Development

You are encouraged to join us for this important meeting and presentation regarding:

- Conversion of Front Street Public Housing to the Section 8 Program
- Re-development of Front Street and addition of new affordable units
- Revised design
- Temporary relocation of residents during construction
- Schedule for the project

*We encourage Front Street public housing residents **and** area neighbors to attend.*

We have submitted a Level III site plan application to the planning board

When: Tuesday July 2nd 2019 at 6:30 PM

**Where: Front Street Community Room
34 W. Presumpscot Street**

- *Snacks provided
- *Interpreters available
- *Ask about child care

For more information or questions
Please call Jay Waterman
at 207.221.8009



Front Street Neighborhood Meeting Sign-In

July 2, 2019 6:30PM

	Name	Street Address	
1	SUSAN ABST	454 RANDALL	
2	Vicki Dillingham	77 Randall St #2	
3	Kadiatu Moriba	28 W Presumpscot St	
4	Cheryl Keeman	EDNA 37 Savoy St	ca14162@yahoo.com
5	Kielic Duffin	65 B RANDALL	
6	Paul Okot		Interpreter
7	Mohammed Hoss		
8	Picky to	—	Interpreter
9	Akad Al Hilween	57 Fern	
10	Thanna Gato	39 Front St	
11	Haloum Sulizan	46 Illsey St	
12	Mary Ben	48 Illsley St.	
13	Kerna Wane	904 Baxter Blvd.	
14	Sheyna Rincon	43 Front St	
15	Regina Okot	50 Illsley	
16	Rania Dikah	47 Front ST	
17	Regina		
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Meeting Minutes
Front Street Neighborhood Meeting
July 2nd , 2019 6:30 PM
34 West Presumpscot Street, Portland

The meeting started at 6:38 PM

Jay Waterman Introduced the PHA staff:
Trevor Nugent, Director of Public Housing
Tyler Plante, Development Officer
Cheryl Sessions, Deputy Executive Director
Latoya Hunder, Resident Transition Specialist

Jay introduced design team members:
Michael LeBlanc – Architect with Utile
Pat Carroll – Landscape Architect

Jay gave a status update on where the project is in the planning board process; talked about the opportunity to redevelop this housing and make it better and connect with the neighborhood better through community centers and pedestrian paths.

Pat Carroll gave an overview of site plan, overall phasing of family housing, senior housing and homeownership housing, layout, parking, open spaces, connectivity, new entrance to Payson Park, addresses on the street or the pedestrian spine.

Michael LeBlanc described the latest design that was presented to the planning board. Orientation to the street; all units with “an address;” context of the neighborhood is important for scale and materials; not trying to re-create same housing types; this project is bigger than most buildings in area; but trying to compliment the neighborhood with well designed modern building that have a feel of the neighborhood.

Michael showed various perspective views and renderings of the project showing each phase and the community centers.

Area neighbor had concern about about the building on the corner of Illsley and Presumpscot Streets being too tall. Michael talked about scale of different sections of each building, the materials being clapboard and board and batten and the up-and-down rooflines of each building that matches the other neighborhood streets.

Area neighbor had concern about not enough off-street parking. Jay responded that Gorrill Palmer did a parking and traffic study. The volume of traffic can be handled by current infrastructure. Parking will be a 1:1 ratio off-street.

Area neighbor question regarding unit mix and are we providing enough bedrooms and units to satisfy all our current residents. Jay responded that we interviewed all current residents, did a survey of their family needs and “right-sized” the unit mix to meet our pledge of 100% Right of Return for all Front Street residents. PHA’s waiting list shows a demand for 4-5BR units (about 50 units) but 0BR and 1BR units have thousands of people on the waiting list. So we are helping many more families and understanding the trend of smaller family sizes.

Jay provided the following information on unit mix and parking:

	Units	BR	parking
Existing	50	182	50
Last meeting	113	209	119
Now	113	223	113

Family

	0BR	1BR	2BR	3BR	4BR	5BR	total
Last mtg	0	18	16	18	4	4	60 units
Now	2	12	12	22	10	2	60

Senior

	0BR	1BR	2BR
Then/Now	0	39	6

Resident asked if they can have a second parking space. It was noted that all current residents have only one parking space and that will not change. The project is proposing a 1:1 parking ratio.

Jay presented information on relocation and introduced Latoya Hunder as our new Resident Transition Specialist.

Public Housing is converting to a MaineHousing financed development

- “Project-Based Voucher” (Section 8 Voucher that stays with the Unit)
- Residents pay 30% of their income now and will still pay 30% of their income

Temporary Relocation

- PHA will help you find a temporary home
- PHA will have staff dedicated to help residents
- Tenant Protection Vouchers are like a Section 8 Voucher
- If you do NOT want to RETURN - you keep your voucher
- If you want to RETURN - your voucher becomes a Project Based Voucher

After 1 year of returning, you can request a Section 8 voucher to move if you want

Next Steps and the schedule was shown for the upcoming meetings and relocation and construction for Phase 1. There is a Public Hearing on July 23rd at City Hall Council chambers that is tentatively scheduled and all were encouraged to attend.

The meeting adjourned at 7:58 PM

95 Front Street

Renee Russell <reneepatn@gmail.com>

Jun 12, 2019 4:07 PM

Posted in group: **Planning Board**

Hello,

Thank you for the notice regarding your proposed project. And thank you for the opportunity to comment.

The only comment my husband and I have, is that 114 parking spaces does not seem nearly enough for 113 apartments.

Good luck with it all,

Renée Russell

43 Galvin St.

Front Street Redevelopment Project

Cheryl Leeman <cal4161@yahoo.com>

Thu, Jun 27, 2019 at 1:58 PM

Reply-To: Cheryl Leeman <cal4161@yahoo.com>

To: "croadman@portlandmaine.gov" <croadman@portlandmaine.gov>

Hello, Christian. In the way of introduction, I am President of the East Deering Neighborhood Association. We have been following the process of the above referenced project and working with the immediate surrounding neighborhood.

As you may know, the East Deering neighborhood is predominately R-3 and R-5 zoning, moderate density in well-established neighborhoods with mostly single family homes, some duplexes and small number of three units. When PRUDs were introduced to these zones many years ago, its intent was to provide higher density developments on larger tracts of land with thoughtful guidance concern given to the context in which they would affect abutting highly residential neighborhood. And it worked successfully for many years until changes were made to PRUDs to accommodate the PHA redevelopment plan for Front Street allowing for increased density and reduction in setbacks, bonuses for height, etc. Unfortunately, these changes have given way to more of an R-6 type of development, designed for the peninsula not off-peninsula neighborhoods as evidenced by the Front Street redevelopment project.

Concerning Front Street redevelopment, the neighborhood continues to have concerns and questions that I will outline below:

- 1.) Massing, height and scale of project in relationship does **not** complement the surrounding neighborhood.
- 2.) Exterior treatment has an "institutional" look and feel a opposed to the clapboard or aluminum siding that currently exists on most of the houses in that neighborhood.
- 3.) Rising sea water is an issue of great concern given that the proposed buildings will be on cement slabs. The existing Front Street housing has a problem with wet basements. History of the area is one fraught with problems of flooding, water drainage, and storm water.
- 4.) **No** to changing status of Cummings Street and the other unaccepted street because the current forestry and foliage is a critical buffer to the abutting homeowners. Neither of these unaccepted streets have ever been put on the list of recommended streets to be removed from the unaccepted street list for a reason.
- 5.) **No** to bump outs as they are not necessary given the low traffic volumes on these streets. HOWEVER, the proposed crosswalks could be designed with different texture similar to rumble strips. The neighborhood strongly suggested a **4 way stop** at the intersection of West Presumpscot and Illsley Streets.
- 6.) No parking restrictions on the street as it is well used by neighborhood and residents of Front Street. PHS currently charges for parking. If they intend to continue that practice, it will affect street parking. If not, the size of development will affect street parking.
- 7.) Does the "recreational" open space meet PRUD standards? Or is it simply another open space area?
- 8.) The displacement of families, most of whom are immigrant families with children, is of grave concern given the recent influx of immigrants and the stress being put on the need for housing. It is not enough to say that the current residents will be given section 8 vouchers? With lack of available housing, will they end up in our homeless shelter?
- 9.) In September of 2017 (9-7-17) the city council voted to strengthened design standards??? And indicated a desire to have appropriate design standards if height, density bonuses are going to be increased.

Please be sure this email is forwarded to the Planning Board members. Thank you. Cheryl Leeman

Consultants:

OWNER:

PORTLAND HOUSING AUTHORITY
14 Baxter Blvd.
Portland, ME 04101
(207) 773.4753

APPLICANT:

FRONT STREET REDEVELOPMENT, LP
14 Baxter Blvd.
Portland, ME 04101
(207) 773.4753

ARCHITECT:

UTILE INC.
115 Kingston St
Boston, MA 02111
(617) 423-7200

LANDSCAPE ARCHITECT:

CARROLL ASSOCIATES
217 Commercial Street, Suite 200
Portland, ME 04101
(207) 772-1552

ENGINEER:

RANSOM ENGINEERS, INC.
400 Commercial Street, Suite 404
Portland, ME 04101
(207) 772.2891

SURVEYOR:

OWEN HASKELL, INC.
390 US Route One, Unit 10
Falmouth, ME 04105
(207) 774.0424

FRONT STREET HOUSING REDEVELOPMENT

FRONT STREET ILLSELY STREET AND PRESUMPCOT STREET PORTLAND, ME

TAX MAP 166
BLOCK B, LOT 1

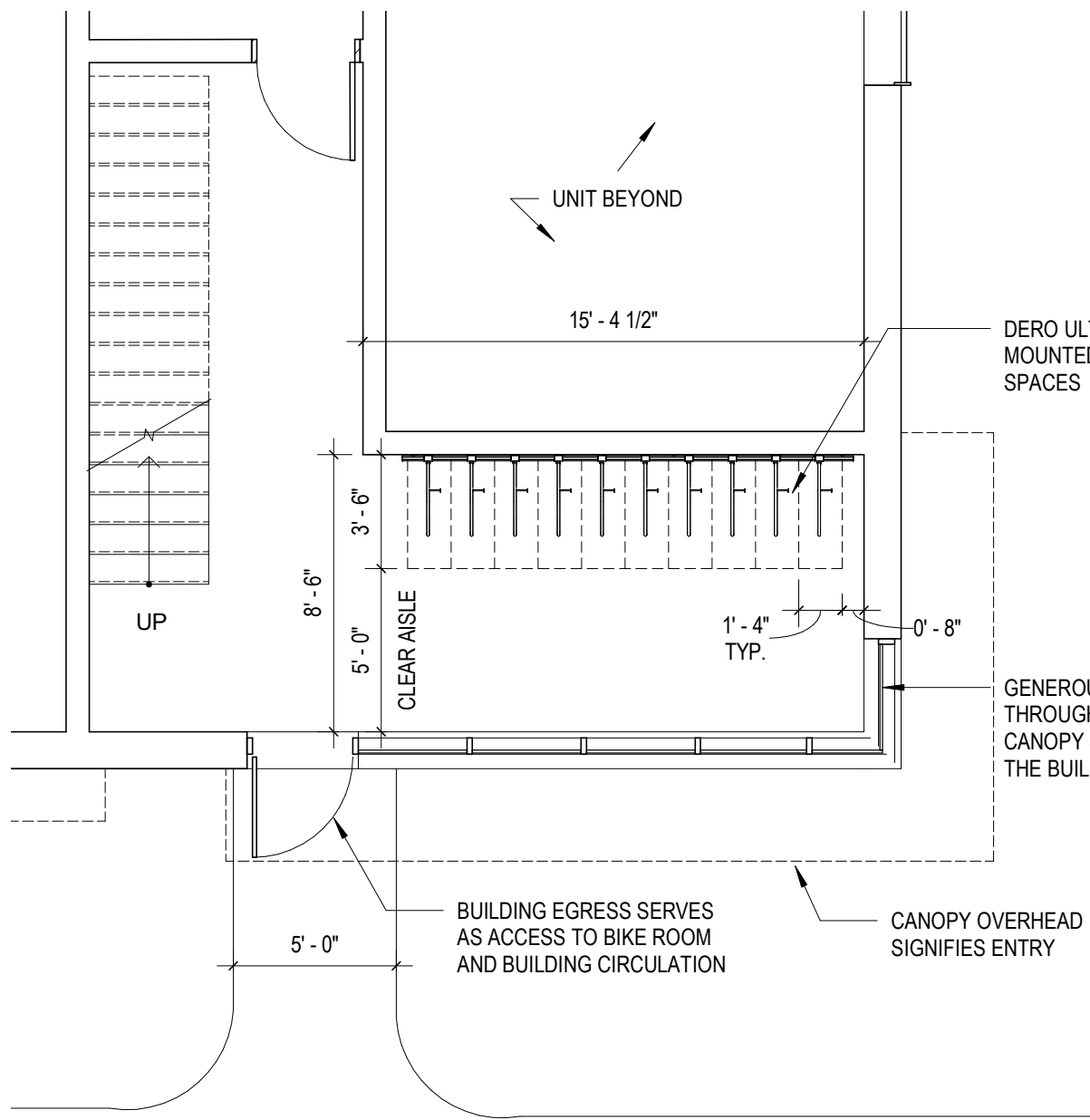
TAX MAP 167
BLOCK E, LOT 1, 9 + 10



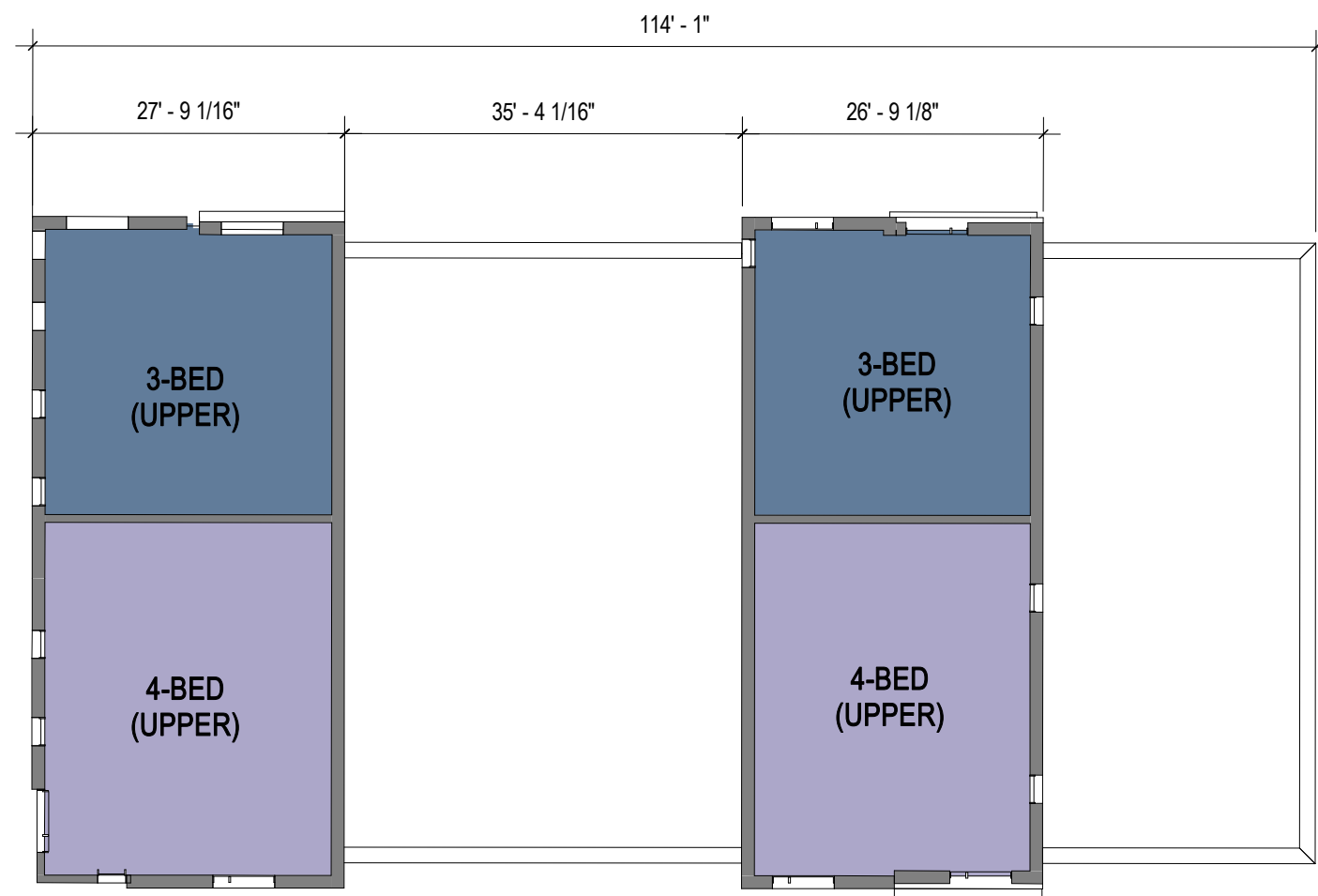
Plan Index :

- 1B BOUNDARY & TOPOGRAPHIC SURVEY
- C-1.0 DEMOLITION AND SITE PREP PLAN
- C-2.0 SITE PLAN
- C-2.1 PHASING PLAN
- C-3.0 SUBDIVISION PLAN
- C-3.1 GRADING & DRAINAGE WEST PARCEL
- C-3.2 GRADING & DRAINAGE EAST PARCEL
- C-4.1 UTILITY PLAN WEST PARCEL
- C-4.2 UTILITY PLAN EAST PARCEL
- C-5.0 STORMWATER & EROSION CONTROL PLAN
- C-6.0 CIVIL DETAILS
- C-7.0 CIVIL DETAILS
- C-8.0 EROSION & SEDIMENTATION CONTROL NOTES
- L-1.0 LANDSCAPE AND LIGHTING PLAN
- L-2.0 PHOTOMETRIC PLAN
- L-3.0 SITE DETAILS
- L-3.1 SITE DETAILS
- L-3.2 SITE DETAILS
- A1.01 PLANS BUILDINGS 1 & 2
- A1.02 PLANS BUILDINGS 3 & 4
- A1.03 PLANS BUILDING 5
- A1.04 PLANS BUILDINGS 6 & 7
- A2.01 MASSING LOGICS
- A2.02 CONTEXTUAL LOGICS
- A2.03 PERSPECTIVE VIEWS
- A3.01 ELEVATIONS BUILDING 1
- A3.02 ELEVATIONS BUILDING 2
- A3.03 ELEVATIONS BUILDING 3
- A3.04 ELEVATIONS BUILDING 4
- A3.05 ELEVATIONS BUILDING 5
- A3.06 ELEVATIONS BUILDINGS 6 & 7

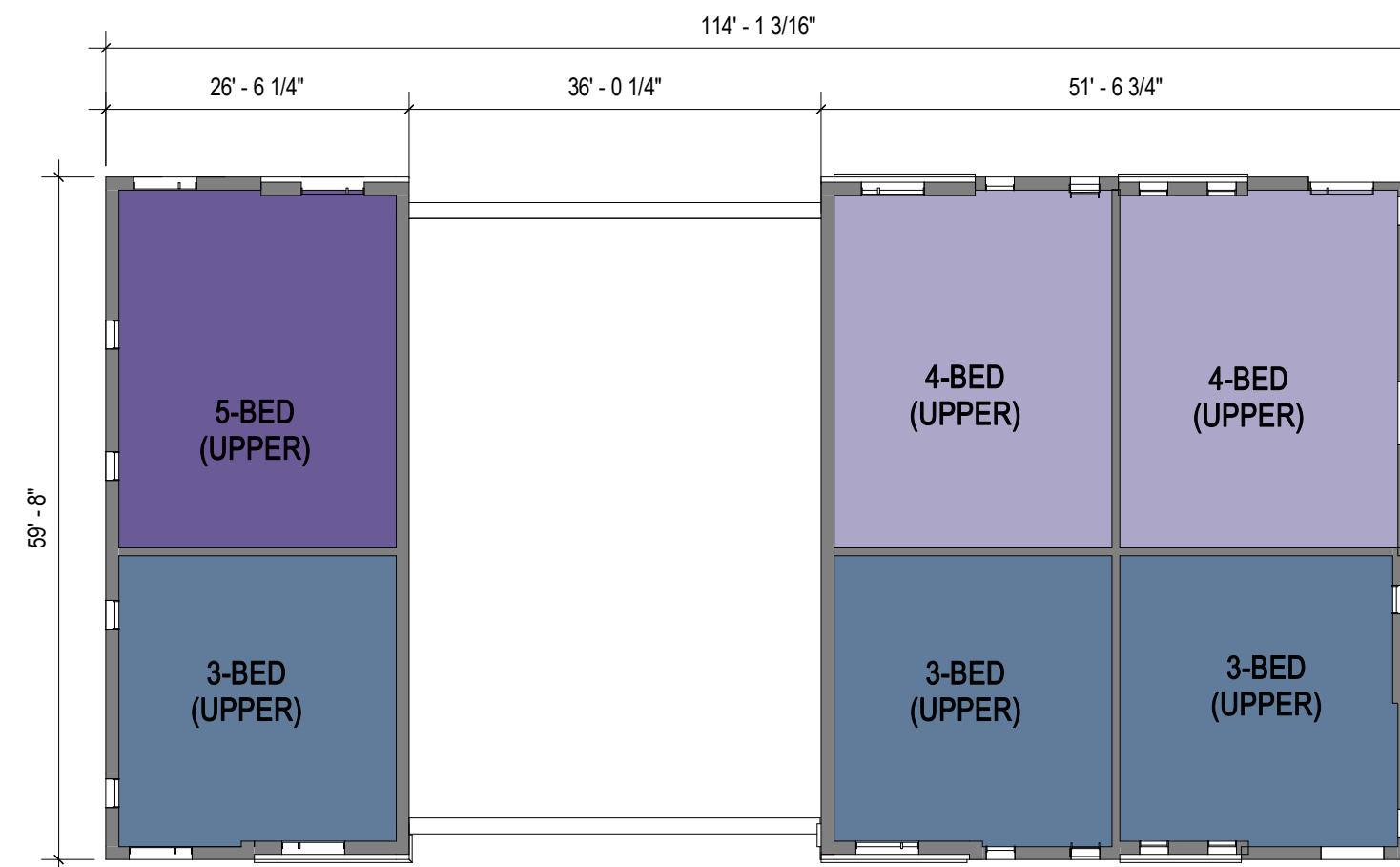
ISSUED FOR: LEVEL III - SITE PLAN APPLICATION
ISSUE DATE: MAY 24, 2019
REVISION DATE: JULY 9, 2019



7 TYPICAL BIKE ROOM DETAIL
3/16" = 1'-0"



6 B2 - LEVEL 3
1/16" = 1'-0"
NOTE: ALL DUPLEX UNITS HAVE INTERNAL STAIR. ASSUME 36" WIDE AND WOOD FRAMED.



3 B1 - LEVEL 3
1/16" = 1'-0"
NOTE: ALL DUPLEX UNITS HAVE INTERNAL STAIR. ASSUME 36" WIDE AND WOOD FRAMED.

BUILDING 1 - SUMMARY

UNIT MIX

0-BED:	00
1-BED:	03
2-BED:	03
3-BED:	04
4-BED:	03
5-BED:	01
TOTAL:	14

GROSS AREA

GROUND FLOOR:	8,858 SF
LEVEL 2:	6,665 SF
LEVEL 3:	4,663 SF
TOTAL:	20,186 SF

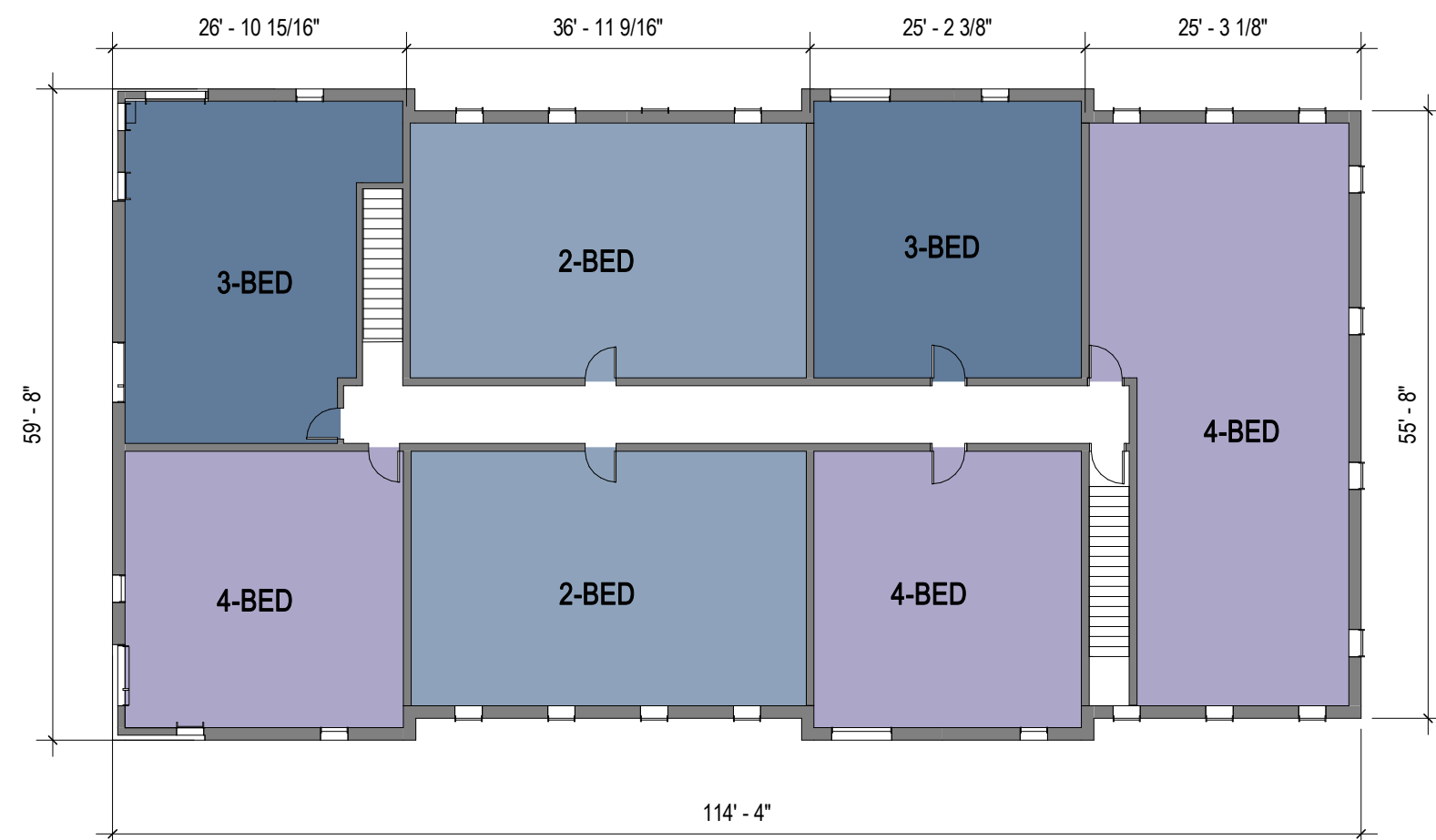
BUILDING 2 - SUMMARY

UNIT MIX

0-BED:	00
1-BED:	03
2-BED:	04
3-BED:	03
4-BED:	03
5-BED:	00
TOTAL:	13

GROSS AREA

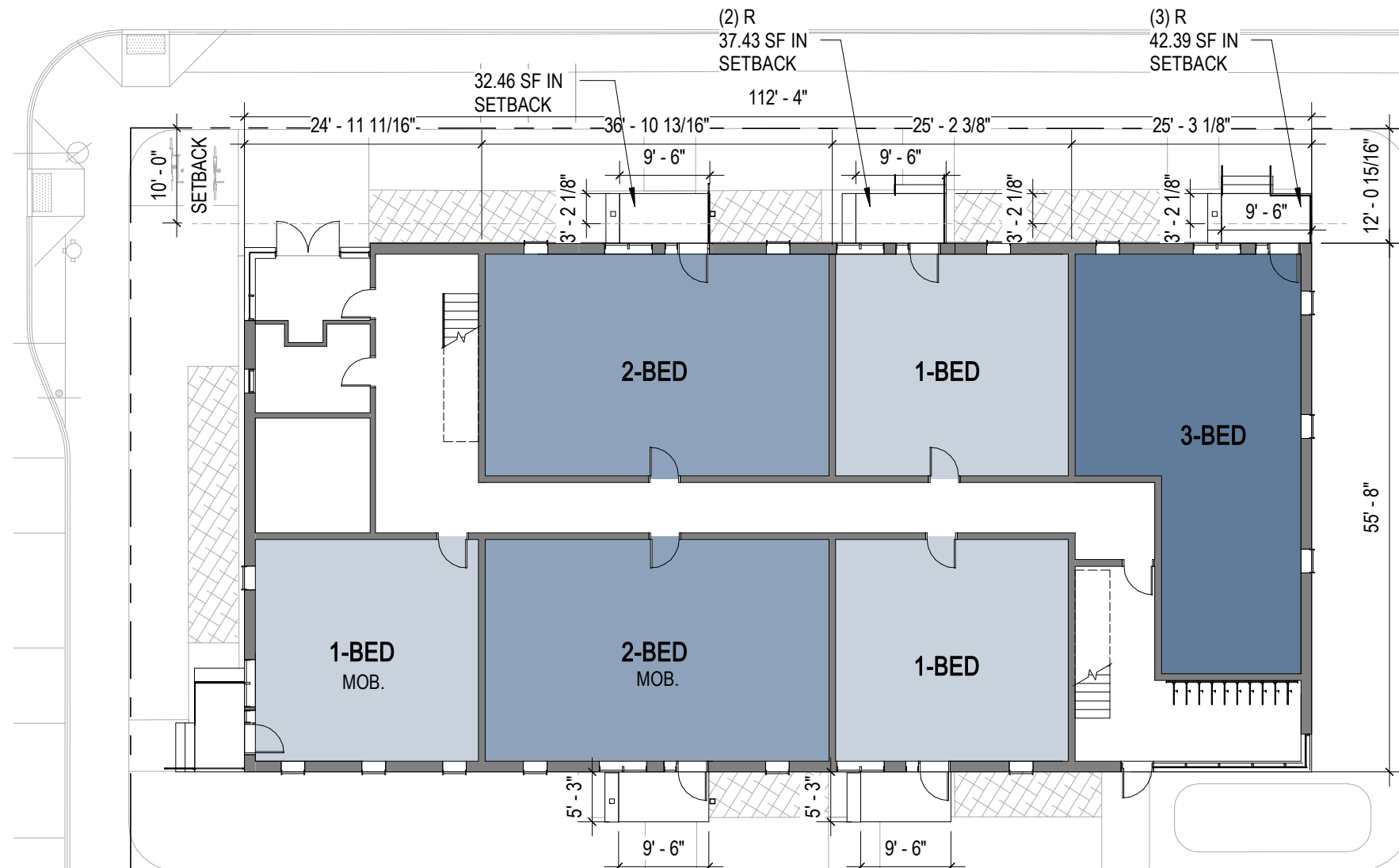
GROUND FLOOR:	6,227 SF
LEVEL 2:	6,582 SF
LEVEL 3:	3,253 SF
TOTAL:	16,062 SF



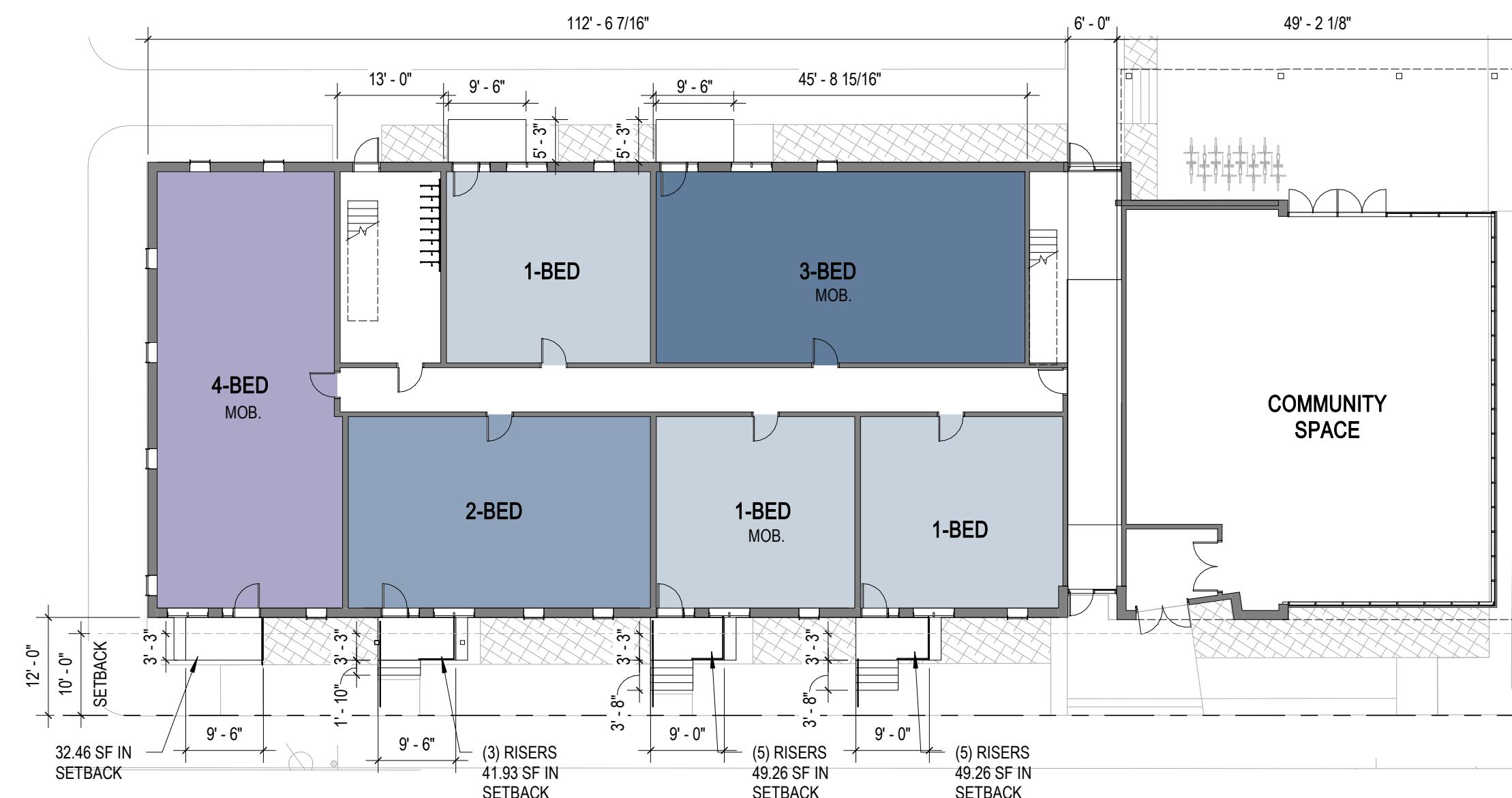
5 B2 - LEVEL 2
1/16" = 1'-0"



2 B1 - LEVEL 2
1/16" = 1'-0"



4 B2 - GROUND FLOOR
1/16" = 1'-0"



1 B1 - GROUND FLOOR
1/16" = 1'-0"

PHA FRONT STREET DEVELOPMENT

37 & 63 Front Street
Portland, Maine 04103

PROJECT

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LANDSCAPE

STAMP

DATE REVISION

07/10/2019 MAINE HOUSING PRE-APP

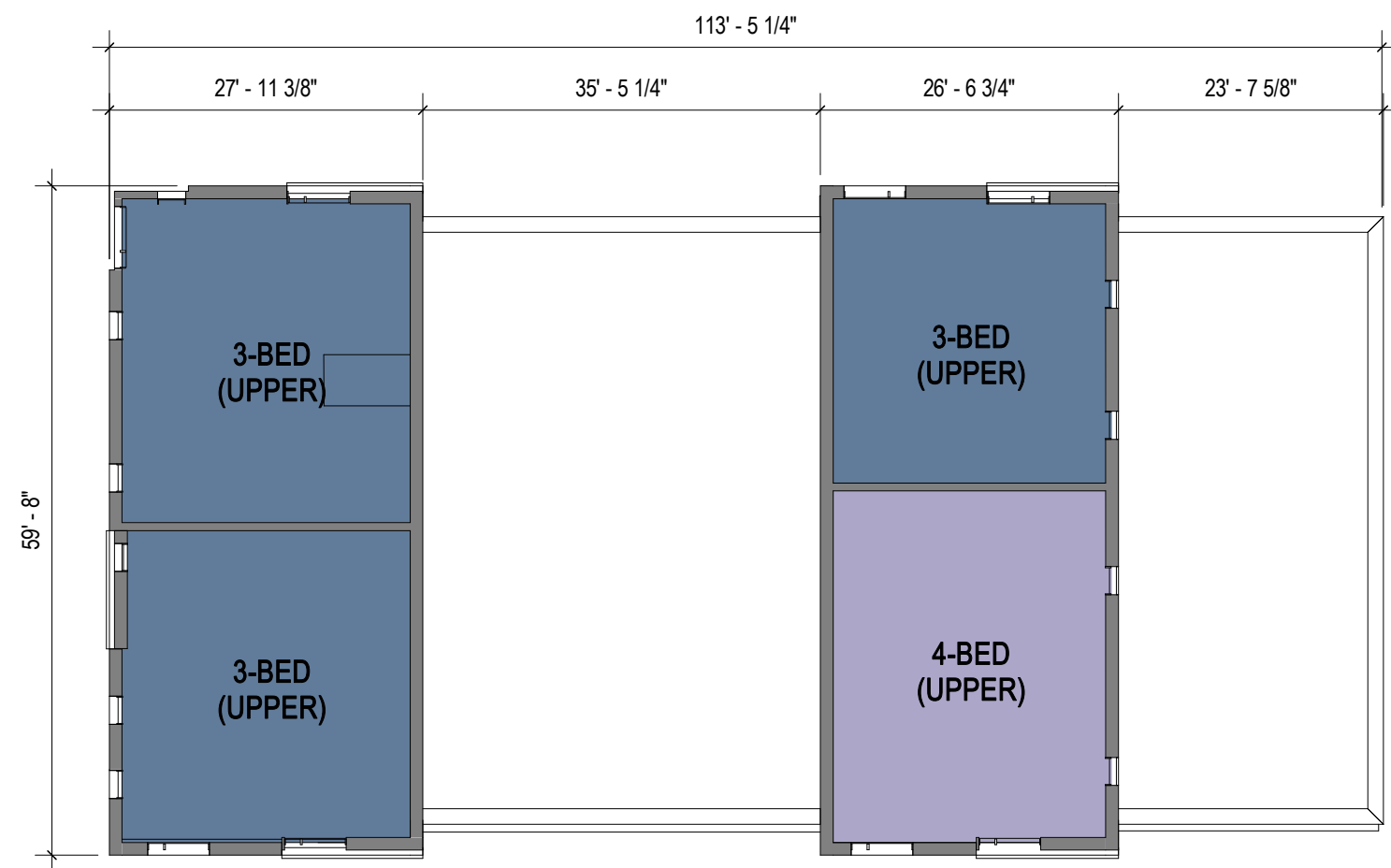
REVISIONS ON SHEET

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SCALE UTILE PROJECT NUMBER
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PLANS - BUILDINGS 1 & 2

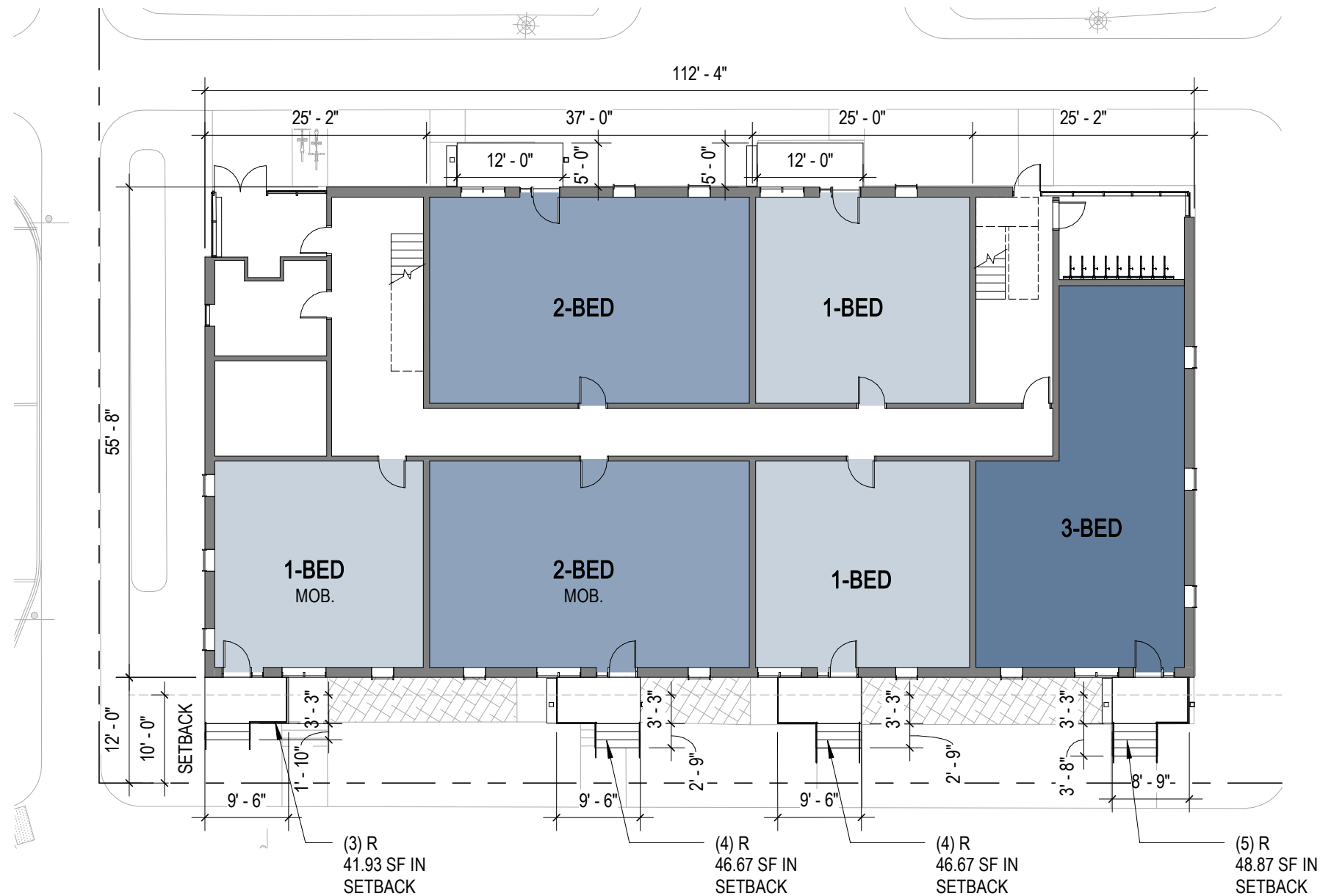
A1.01



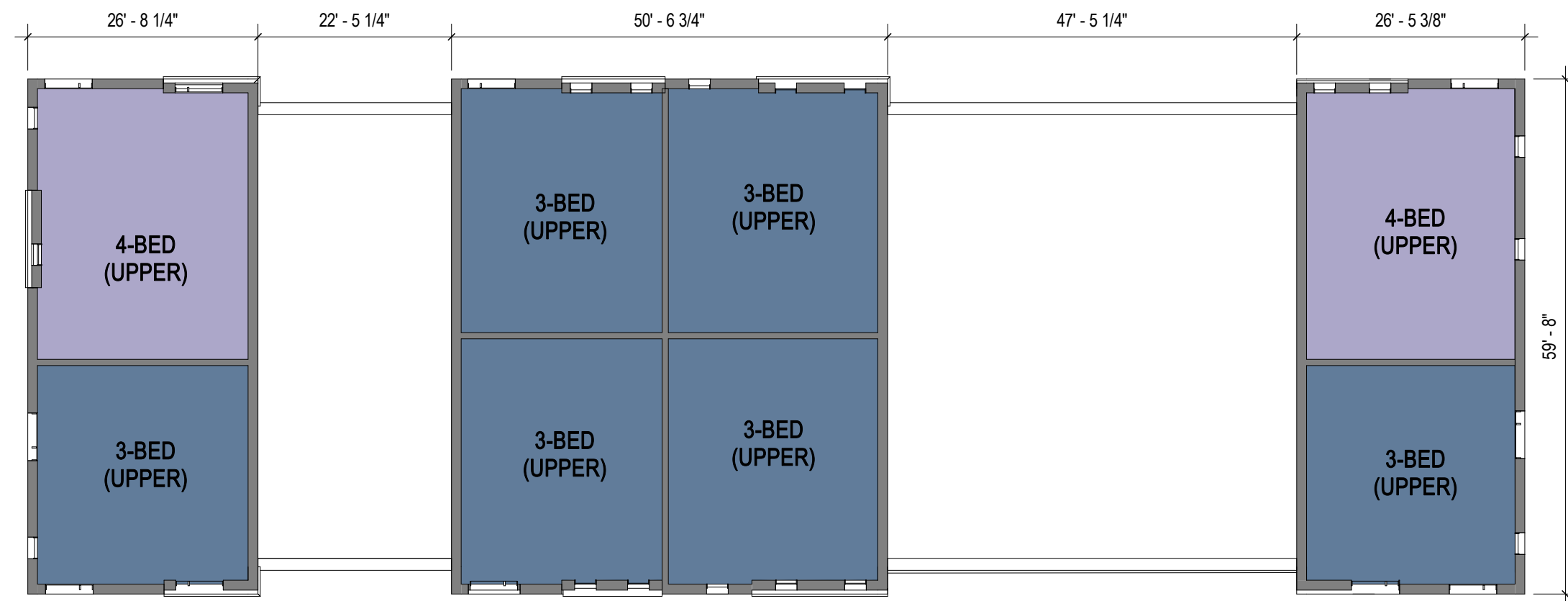
6 B4 - LEVEL 3
1/16" = 1'-0"



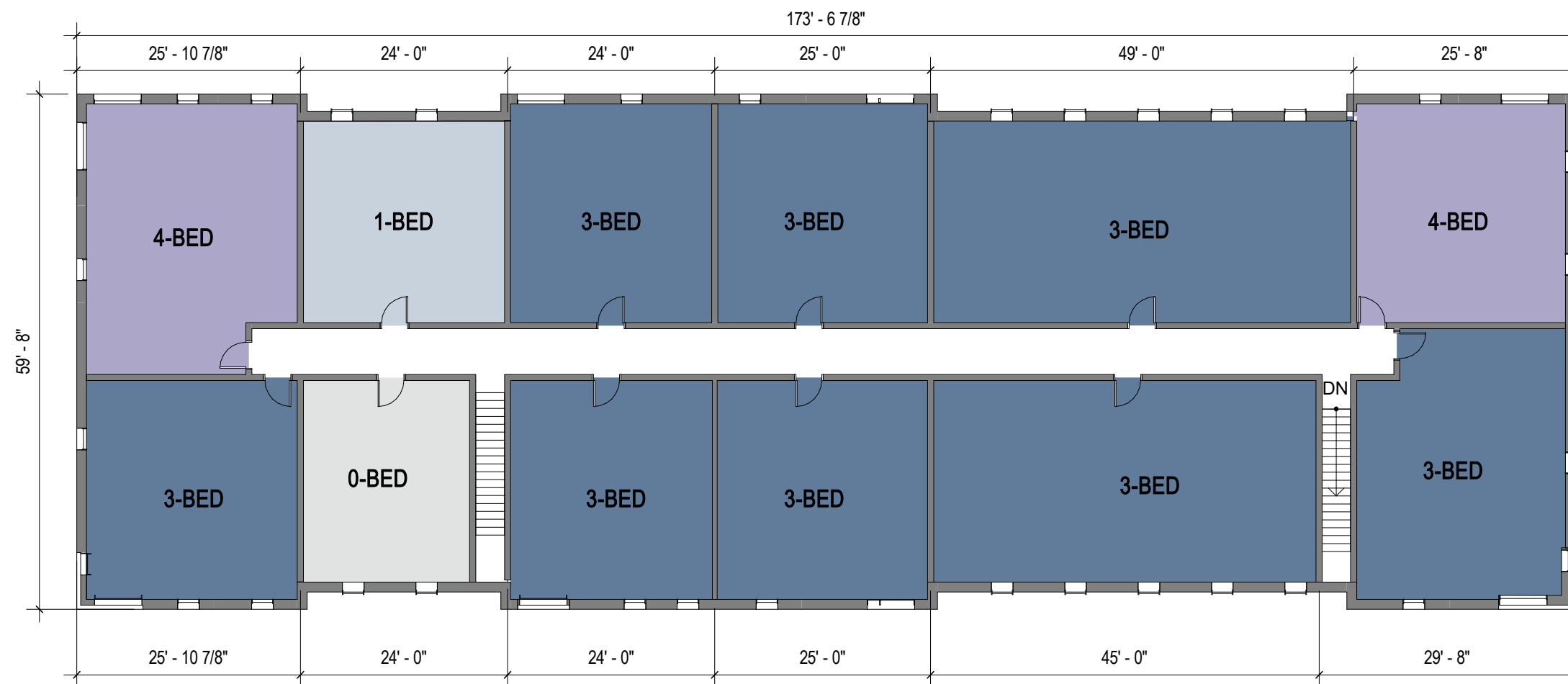
5 B4 - LEVEL 2
1/16" = 1'-0"



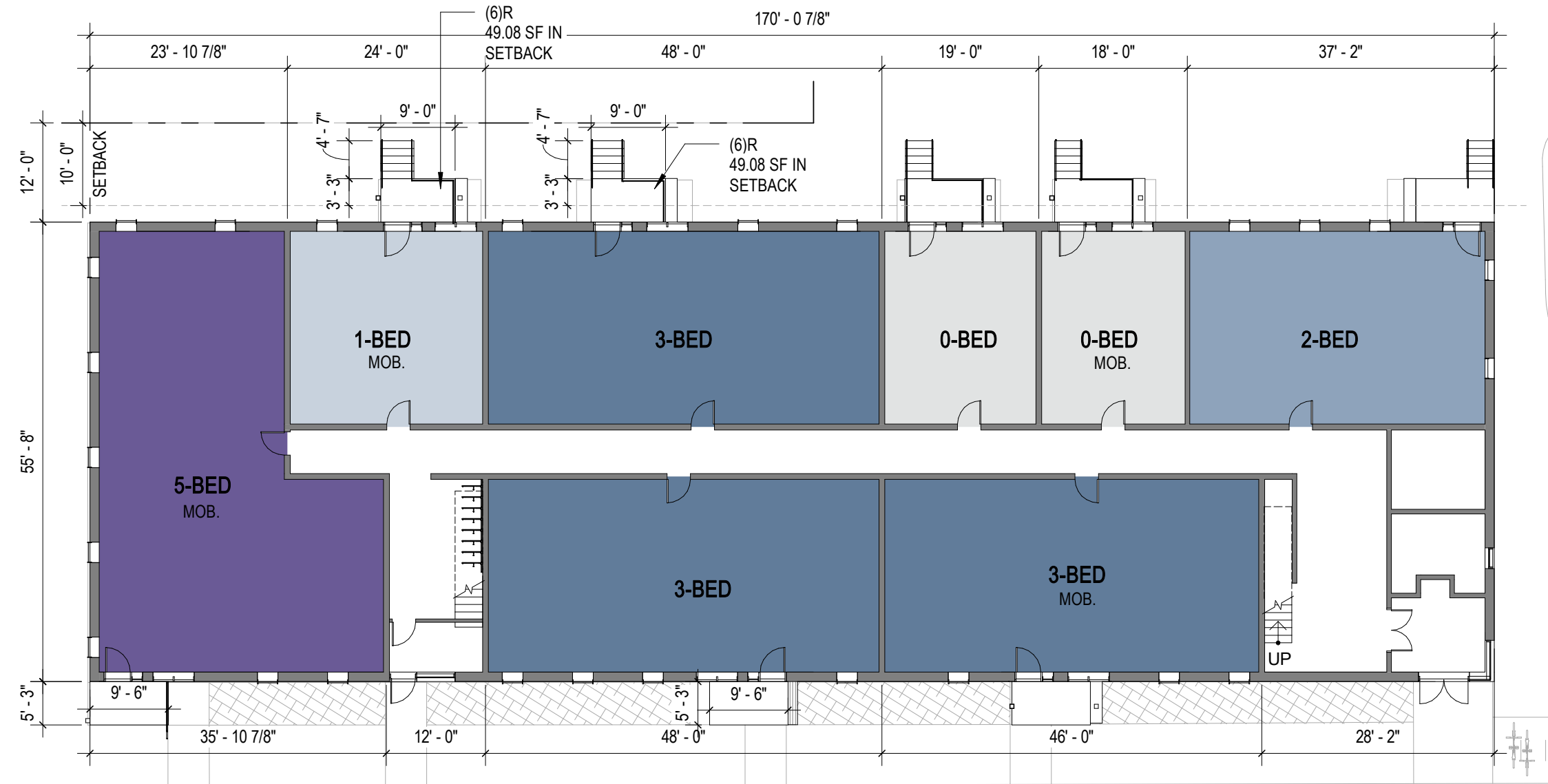
4 B4 - GROUND FLOOR
1/16" = 1'-0"



3 B3 - LEVEL 3
1/16" = 1'-0"



2 B3 - LEVEL 2
1/16" = 1'-0"



1 B3 - GROUND FLOOR
1/16" = 1'-0"

BUILDING 3 - SUMMARY

UNIT MIX	
0-BED:	02
1-BED:	03
2-BED:	01
3-BED:	11
4-BED:	02
5-BED:	01
TOTAL:	20

GROSS AREA	
GROUND FLOOR:	9,467 SF
LEVEL 2:	10,077 SF
LEVEL 3:	6,164 SF
TOTAL:	25,709 SF

BUILDING 4 - SUMMARY

UNIT MIX	
0-BED:	00
1-BED:	03
2-BED:	04
3-BED:	04
4-BED:	02
5-BED:	00
TOTAL:	13

GROSS AREA	
GROUND FLOOR:	6,242 SF
LEVEL 2:	6,583 SF
LEVEL 3:	3,253 SF
TOTAL:	16,078 SF

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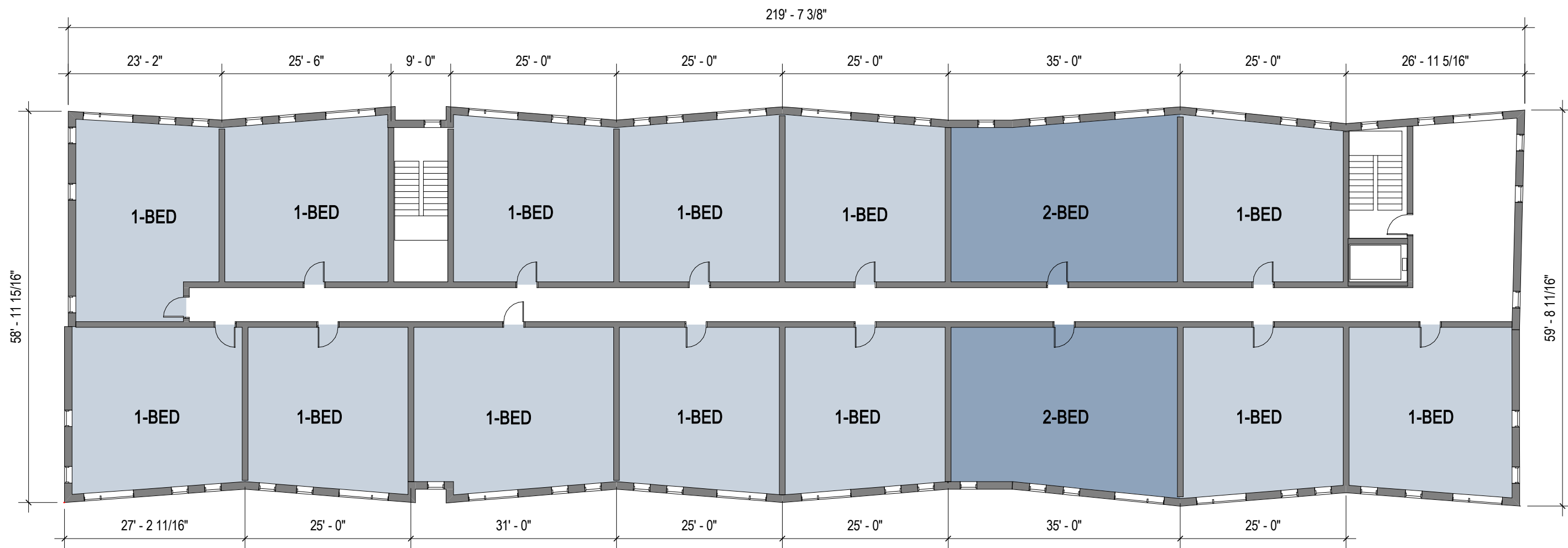
REVISIONS ON SHEET

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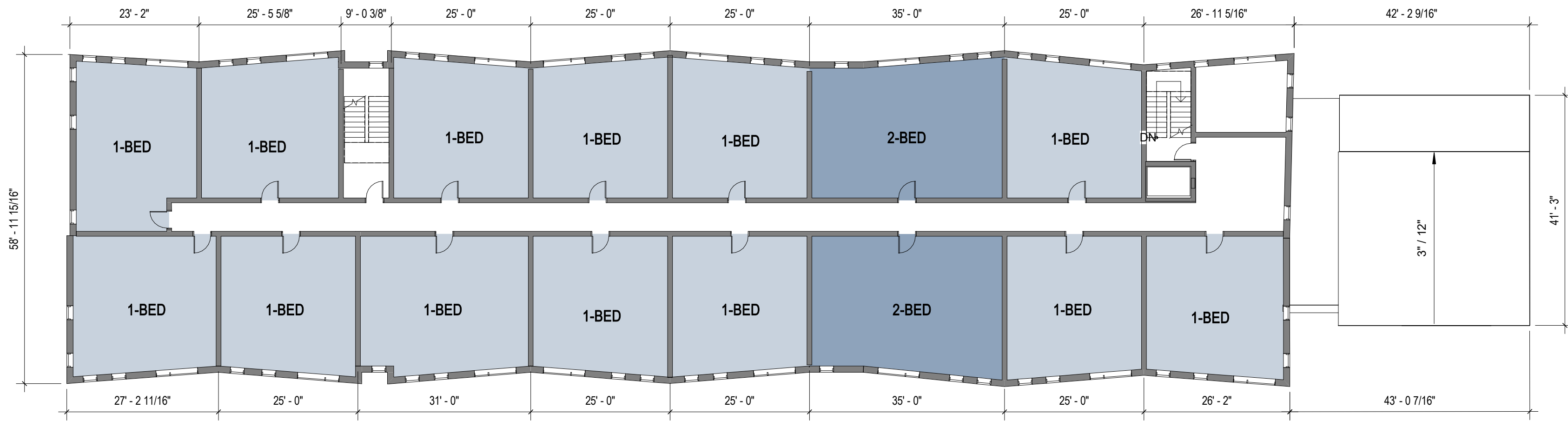
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1/16" = 1'-0"	1514.5

PLANS - BUILDINGS 3 & 4

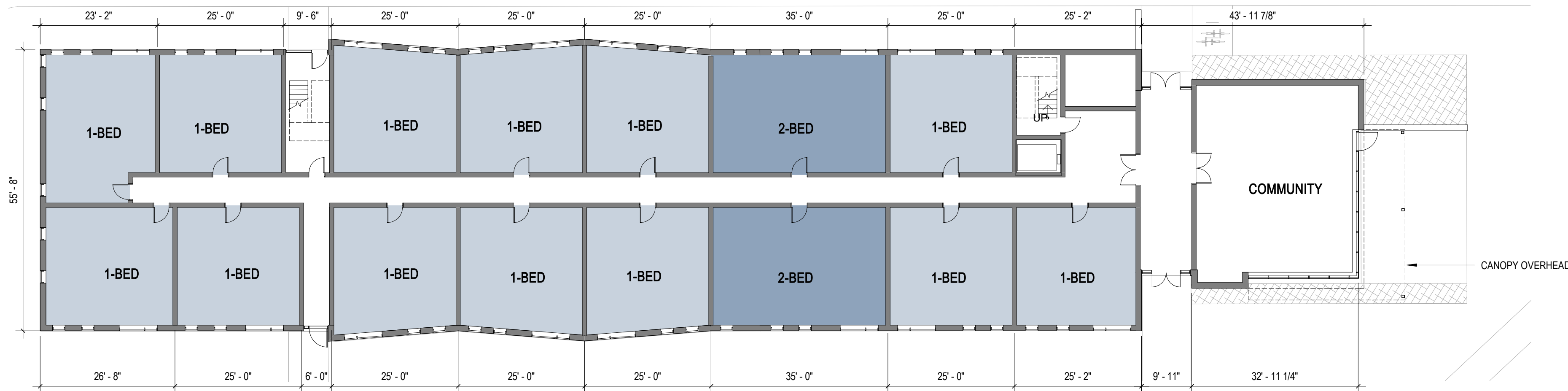
A1.02



3 B5 - LEVEL 3
1/16" = 1'-0"



2 B5 - LEVEL 2
1/16" = 1'-0"



1 B5 - GROUND FLOOR
1/16" = 1'-0"

BUILDING 5 - SUMMARY

UNIT MIX

0-BED:	00
1-BED:	39
2-BED:	06
3-BED:	00
4-BED:	00
5-BED:	00
TOTAL:	45

GROSS AREA

GROUND FLOOR:	13,996 SF
LEVEL 2:	12,640 SF
LEVEL 3:	12,640 SF
TOTAL:	39,276 SF

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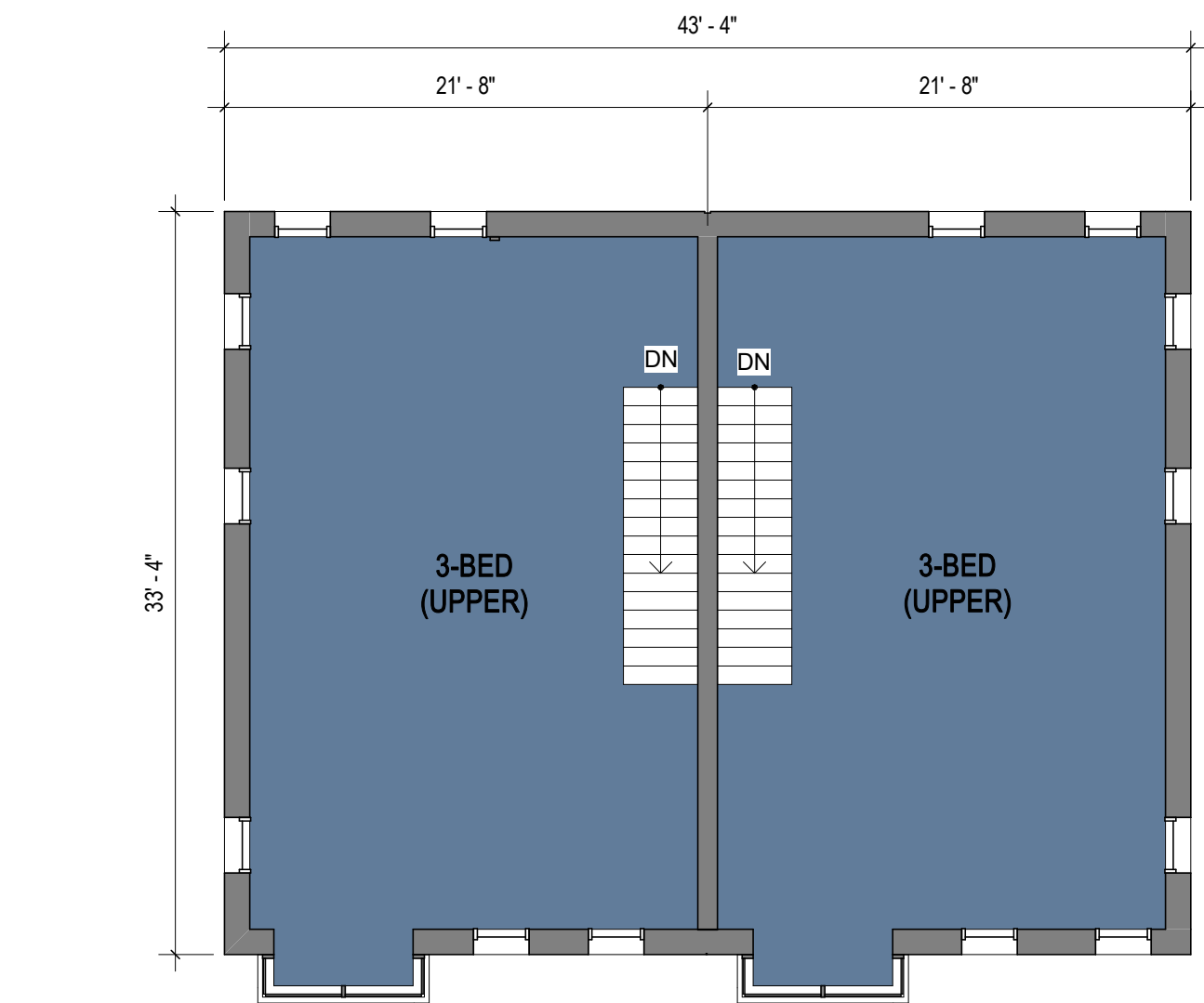
1/16" = 1'-0"

UTILITE PROJECT NUMBER

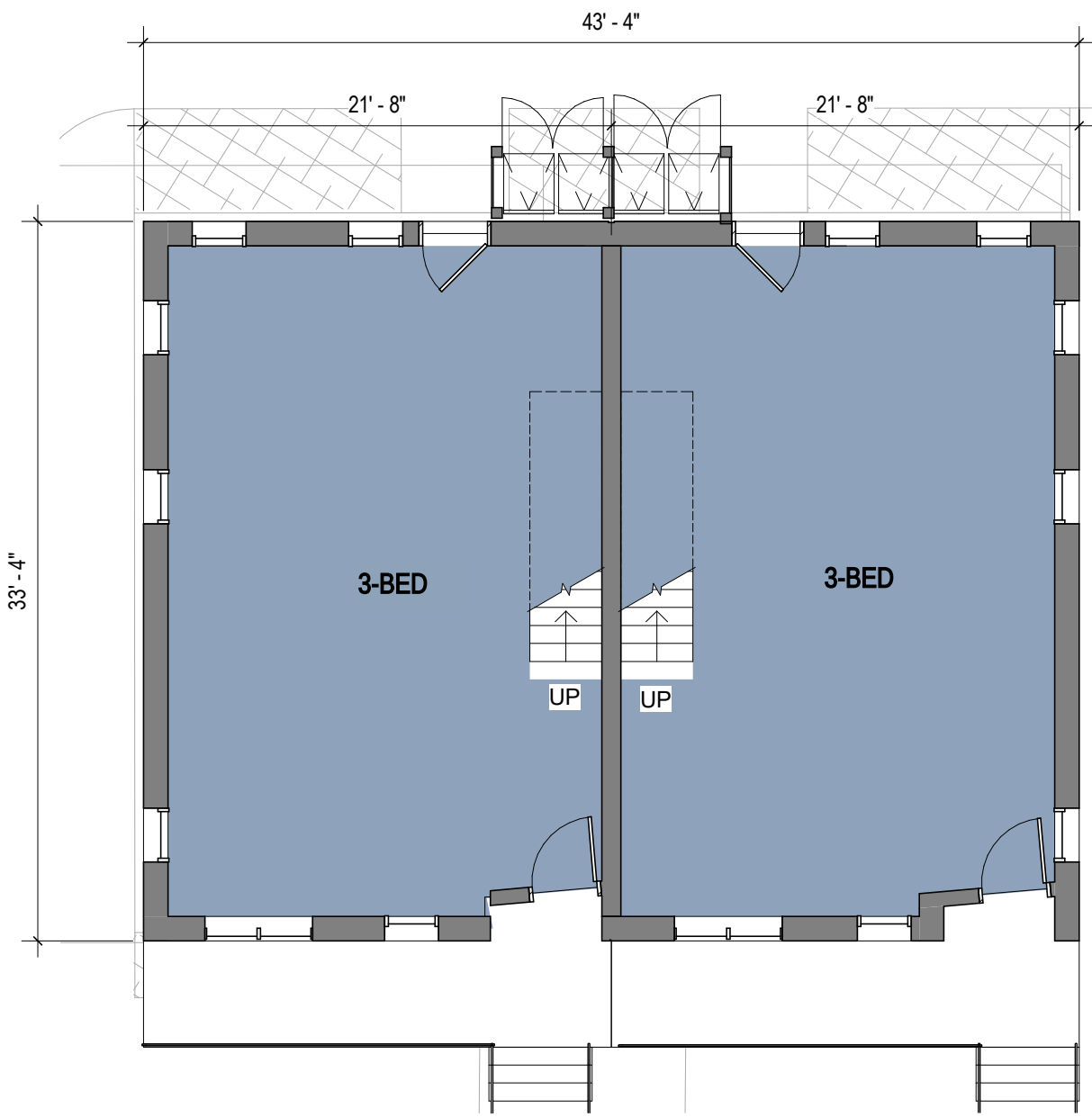
1514.5

PLANS - BUILDING 5

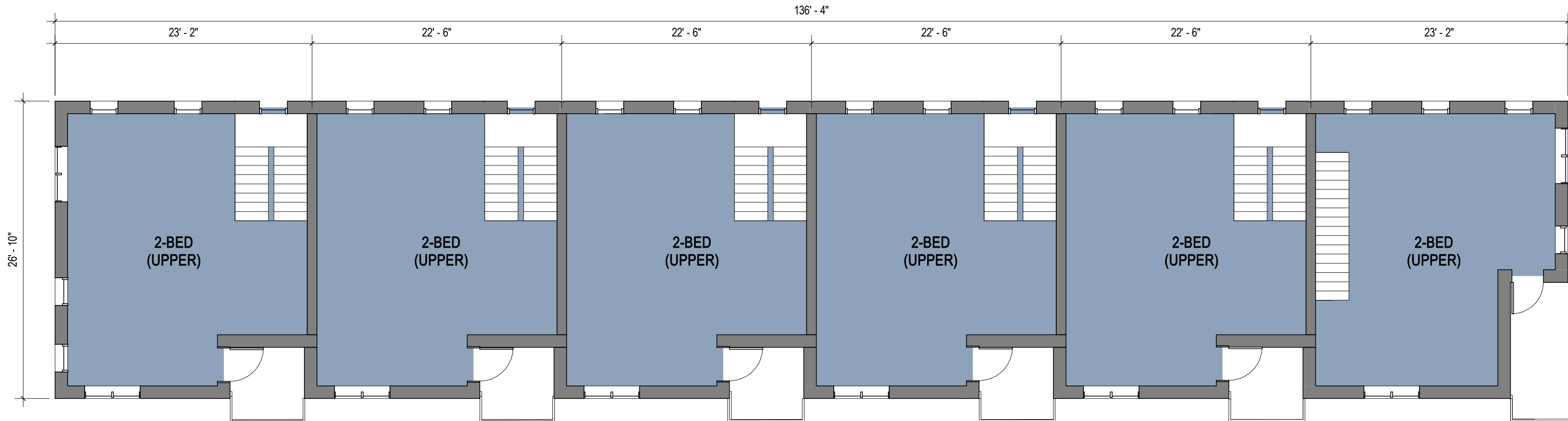
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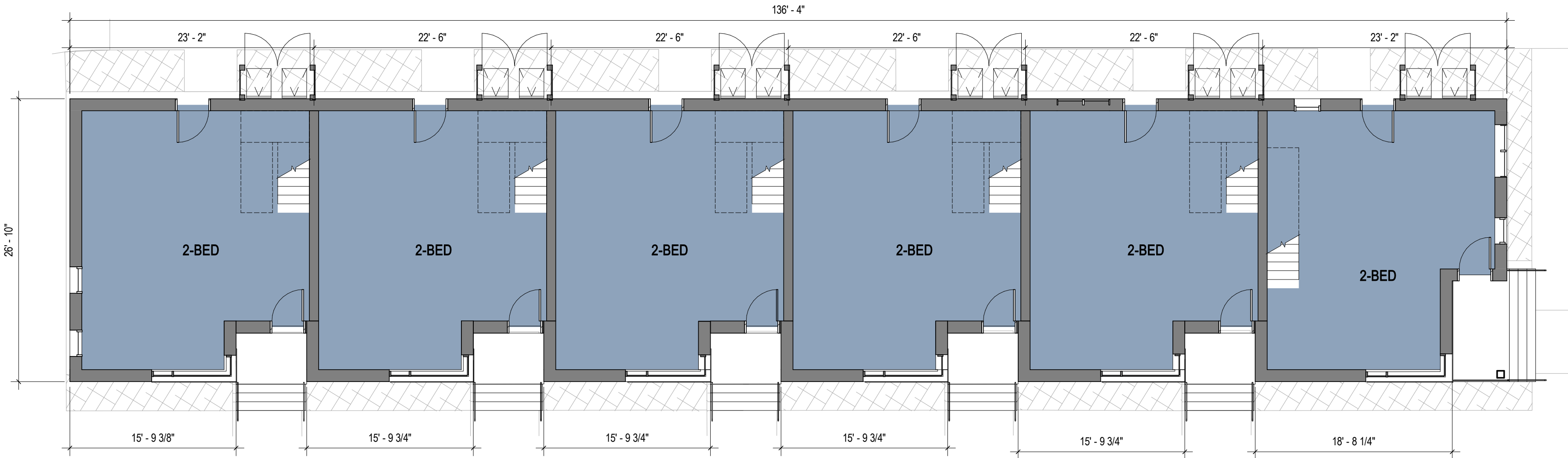
4 B7 - LEVEL 2
1/8" = 1'-0"



3 B7 - GROUND FLOOR
1/8" = 1'-0"



2 B6 - LEVEL 2
1/8" = 1'-0"



1 B6 - GROUND FLOOR
1/8" = 1'-0"

BUILDING 6 - SUMMARY

UNIT MIX	
0-BED:	00
1-BED:	00
2-BED:	06
3-BED:	00
4-BED:	00
5-BED:	00
TOTAL:	06

GROSS AREA	
GROUND FLOOR:	3,447 SF
LEVEL 2:	3,449 SF
TOTAL:	6,896 SF

BUILDING 7 - SUMMARY

UNIT MIX	
0-BED:	00
1-BED:	00
2-BED:	00
3-BED:	02
4-BED:	00
5-BED:	00
TOTAL:	02

GROSS AREA	
GROUND FLOOR:	1,444 SF
LEVEL 2:	1,444 SF
TOTAL:	2,888 SF

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SCALE

1/8" = 1'-0"

UTILITE PROJECT NUMBER

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PLANS - BUILDINGS 6 & 7

A1.04



6 PERSPECTIVE VIEW - W. PRESUMPCOT AT ILLSLEY STREET - SOUTH
1 1/2" = 1'-0"



3 PERSPECTIVE VIEW - W. PRESUMPCOT STREET AT BUILDING 6
1 1/2" = 1'-0"



5 PERSPECTIVE VIEW - COMMUNITY BUILDING AT FRONT STREET
1 1/2" = 1'-0"



2 PERSPECTIVE VIEW - UNIT PATIO
1 1/2" = 1'-0"



4 PERSPECTIVE VIEW - BUILDING 5 AT FRONT STREET
1 1/2" = 1'-0"



1 PERSPECTIVE VIEW - BUILDING 2 ENTRY
1 1/2" = 1'-0"

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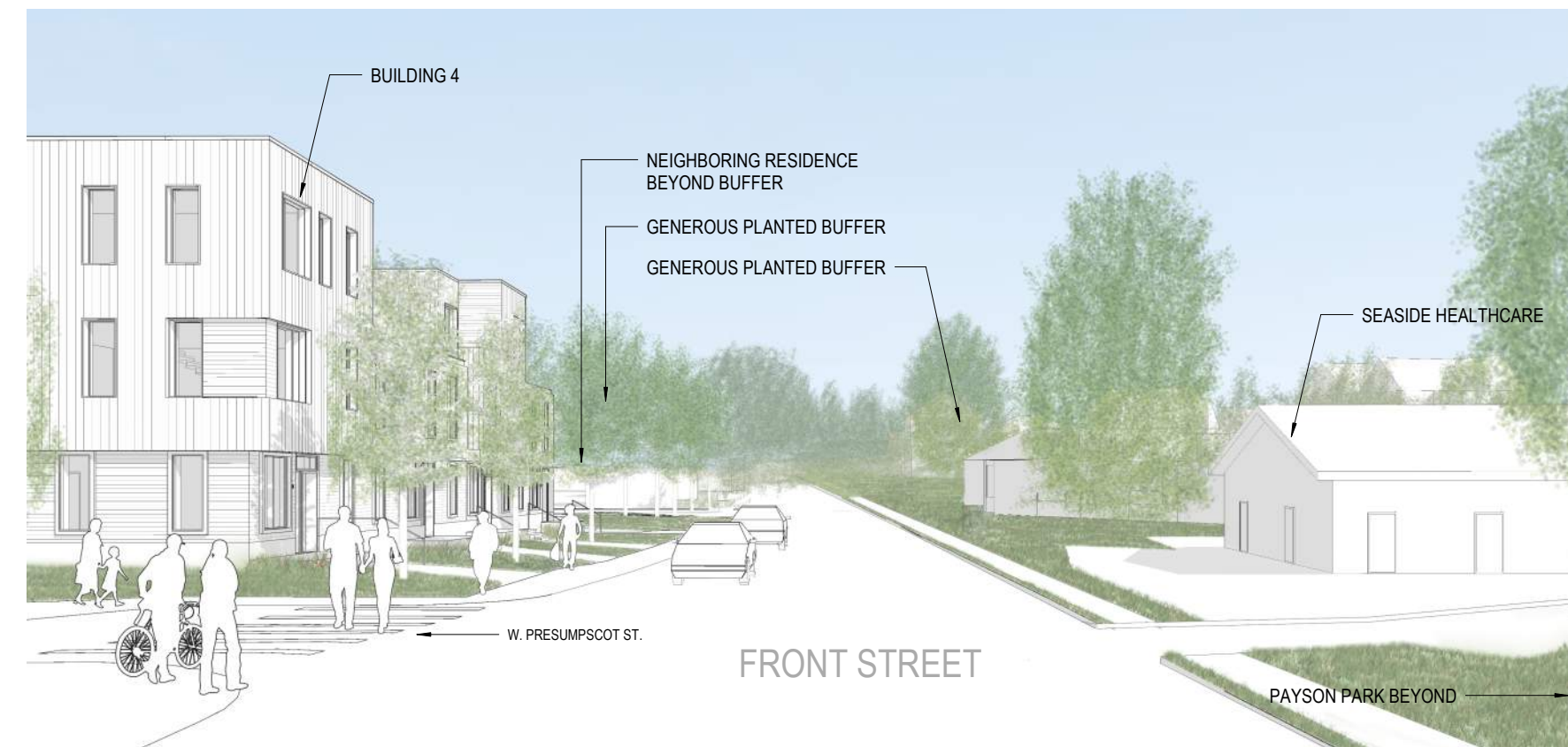
PERSPECTIVE VIEWS

A2.01

NEIGHBORHOOD CONTEXTUAL MASSING



2_PERSPECTIVE VIEW - W. PRESUMPCOT ST LOOKING SOUTH



1_PERSPECTIVE VIEW - FRONT STREET LOOKING EAST

MATERIAL PRECEDENTS

THE PROJECT AIMS TO COMPLIMENT THE NEIGHBORHOOD WITH THE USE OF MATERIALS COMMON TO THE NEIGHBORHOOD AND THE MAINE REGION THROUGH A CONTEMPORARY VERSION OF SIMPLE MAINE VERNACULAR



EXAMPLE OF BOARD AND BATTEN SIDING
ESTES TWOMBLY



EXAMPLE OF CONTEMPORARY USE OF SHINGLE SIDING
DESAI CHAI



EXAMPLE OF CONTEMPORARY USE OF WINDOW
SCALING AND PROPORTIONS
CALEB JOHNSON



EXAMPLE OF CONTEMPORARY USE OF VERTICAL SIDING AND ACCENT WINDOWS
STUDIO MA



EXAMPLE OF CONTEMPORARY USE OF CLAPBOARD SIDING
CAROL WILSON

NEIGHBORHOOD CONTEXTUAL PRECEDENTS

THE FRONT STREET NEIGHBORHOOD USES A WIDE VARIETY OF MATERIALS, FORMS, COLORS AND ACCENTS. THE PROPOSED PROJECT DOES NOT AIM TO REPLICATE THE DESIGN OF THE IMMEDIATE NEIGHBORHOOD, BUT AIMS TO BE A THOUGHTFUL COMPLIMENT BY ADOPTING THE VARIOUS CUES OF THE SURROUNDING CONTEXT.



EXAMPLE OF CLAPBOARD SIDING WITH FACADE INFLECTIONS
FRONT STREET



EXAMPLE OF THREE-STORY MASSING W/ FACADE INFLECTIONS AND TYPICAL
WINDOW TREATMENT
W. PRESUMPCOT STREET



EXAMPLE CONTEMPORARY WINDOW SCALING AND PROPORTIONS
RANDALL STREET



EXAMPLE OF TYPICAL PORCH CONDITIONS
ILLSLEY STREET



EXAMPLE OF BOARD AND BATTEN SIDING USED AS AN ACCENT



EXAMPLE OF CLAPBOARD SIDING WITH TWO-TONE COLOR SCHEME
WASHINGTON STREET



EXAMPLE OF SHINGLE SIDING WITH TYPICAL WINDOW ARRANGEMENTS
FRONT STREET



EXAMPLE OF TYPICAL PORCH CONDITION
ILLSLEY STREET



EXAMPLE OF BOARD AND BATTEN SIDING USED AS AN ACCENT

PHA FRONT
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DEVELOPMENT

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SCALE
1 1/2" = 1'-0"

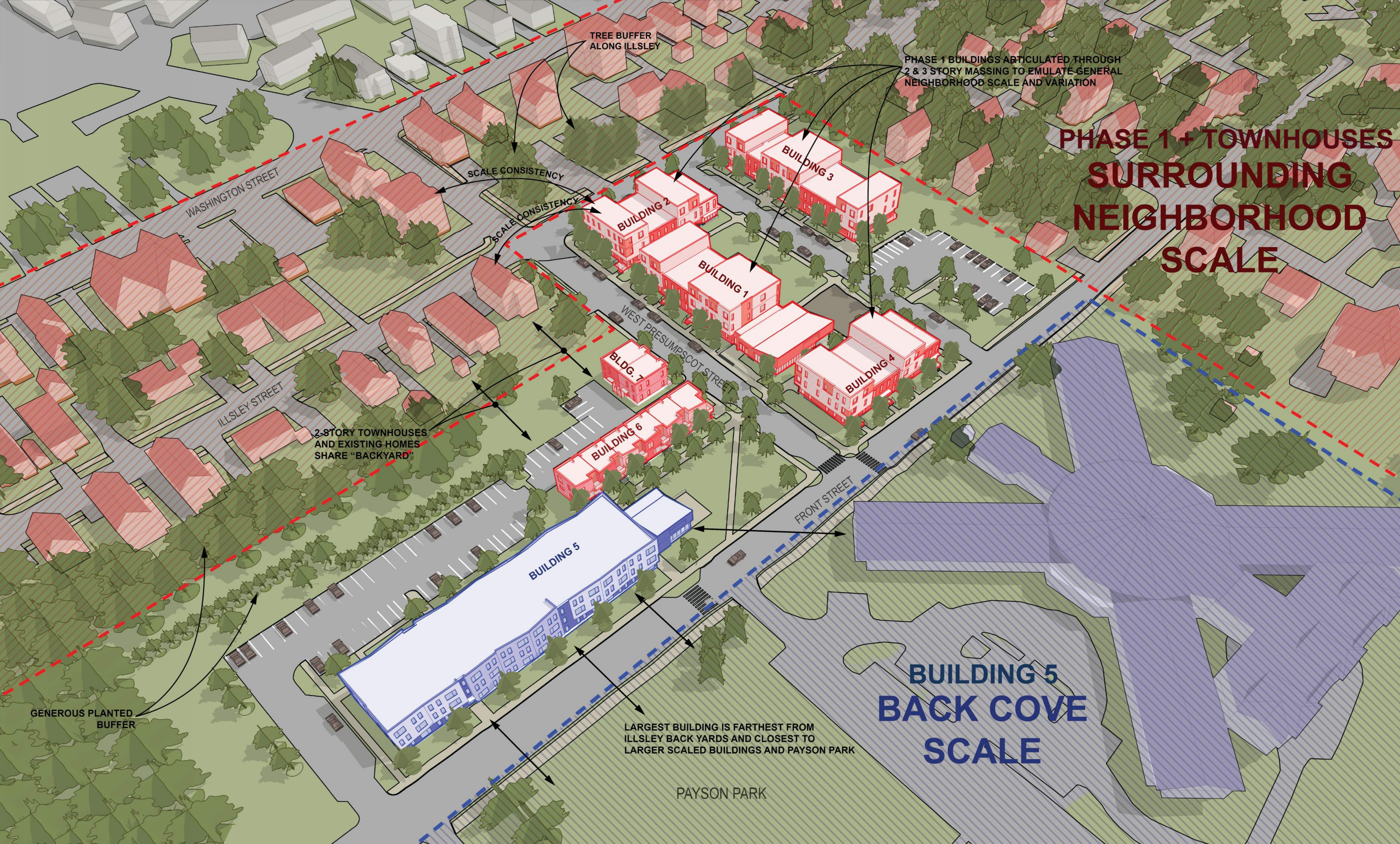
UTILITE PROJECT NUMBER
1514.5

CONTEXTUAL LOGICS

A2.02

MASSING LOGICS

THE MASSING THROUGHOUT THE PROJECT WAS DEVELOPED TO RESPOND TO ADJACENT CONTEXT. THE PHASE 1 (BUILDINGS 1 THRU 4) MULTI-FAMILY BUILDINGS ARE MOST PROXIMATE TO THE EXISTING 2 & 3-STORY NEIGHBORHOOD FABRIC. THE DESIGN IS RESPONSIVE TO THE EXISTING SCALE AND ATTEMPTS TO PLACE 3-STORY MASSES IN PLACES THAT HAVE SIMILAR ADJACENT HEIGHT, OR HAVE GENEROUS PLANTING BUFFERS. BUILDING 5 IS PLACED ALONG FRONT STREET FURTHEST FROM THE EXISTING HOMES AND CLOSER TO THE LARGER SCALED SENIOR HOUSING AND PAYSON PARK. THE TOWNHOUSES IN BUILDINGS 6 & 7 ARE ALL 2-STORIES IN HEIGHT AND WE FEEL ARE THE BEST SCALE TO SHARE A "BACKYARD" WITH THE EXISTING ILLSLEY RESIDENCES.



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SCALE 1 1/2" = 1'-0"	UTILITE PROJECT NUMBER 1514.5

MASSING LOGICS

A2.01

- 3A CAST-IN-PLACE CONCRETE STEM WALL W/ STUCCO FINISH, COLOR TBD.
- 3B CAST-IN-PLACE CONCRETE LANDING
- 3C CAST-IN-PLACE CONCRETE STEPS, AS REQ'D
- 3D PRECAST CONCRETE COLUMNS
- 5A PTD GALV. STEEL METAL GUARDS & HAND RAILS, COLOR TBD
- 5B PTD GALV. STEEL FORMED METAL RAILING
- 5C PERFORATED STEEL PANEL GUARDRAIL, CUSTOM COLOR
- 7A 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "A"
- 7B 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "B"
- 7C PTD CEMENTITIOUS PANELS W/ PAINTED PVC OR POLY-ASH BATTENS, SPACING TBD, CUSTOM COLOR "C"
- 7D 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "D" (SIM. TO COLOR "C")
- 7E 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "E"
- 7F 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "F"
- 7G 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "G"
- 7H 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "H"
- 7J 1X4 T&G V-JOINT EV'IS A CLEAR GRADE, W/ 2-COAT TRANSPARENT ALKYD-OIL FINISH
- 7K PTD PVC OR POLY-ASH TRIM, COLOR OPTIONS TO CORRESPOND WITH SURROUNDING SIDING
- 7L WOOD SHINGLE WITH SOLID STAIN, CUSTOM COLOR
- 7M FACTORY FINISHED ALUMINUM FLASHING, TYP. AT RESIDENTIAL BUILDINGS
- 7N ZCC FLASHING, TYP. AT COMMUNITY BUILDING
- 7P STANDING SEAM ALUM. ROOFING
- 7R PVC ROOFING, TYP. AT RESIDENTIAL BUILDINGS
- 7S CEMENTITIOUS SIDING-CLAD FENCE W/ OPERABLE GATES
- 8A VINYL HIGH PERFORMANCE WINDOWS, CASEMENT & FIXED, TBD.
- 8B PTD FIBERGLASS DOOR W/ TRANSOM & SIDELITE
- 8C THERMALLY BROKEN ALUM. STOREFRONT SYSTEM W/ 1" LOW-E IGU'S
- 10 PVDF COATED ALUM. SIGNAGE
- 23 ROOF MOUNTED CONDENSERS BEYOND



6 PERSPECTIVE VIEW - W. PRESUMPCOT AT ILLSLEY STREET - SOUTH
1 1/2" = 1'-0"



5 PERSPECTIVE VIEW - COMMUNITY BUILDING AT FRONT STREET
1 1/2" = 1'-0"



4 PERSPECTIVE VIEW - UNIT PATIO
1 1/2" = 1'-0"



3 PERSPECTIVE VIEW - W. PRESUMPCOT STREET AT BUILDING 6
1 1/2" = 1'-0"



2 PERSPECTIVE VIEW - BUILDING 5 AT FRONT STREET
1 1/2" = 1'-0"



1 PERSPECTIVE VIEW - BUILDING 2 ENTRY
1 1/2" = 1'-0"

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PERSPECTIVE VIEWS

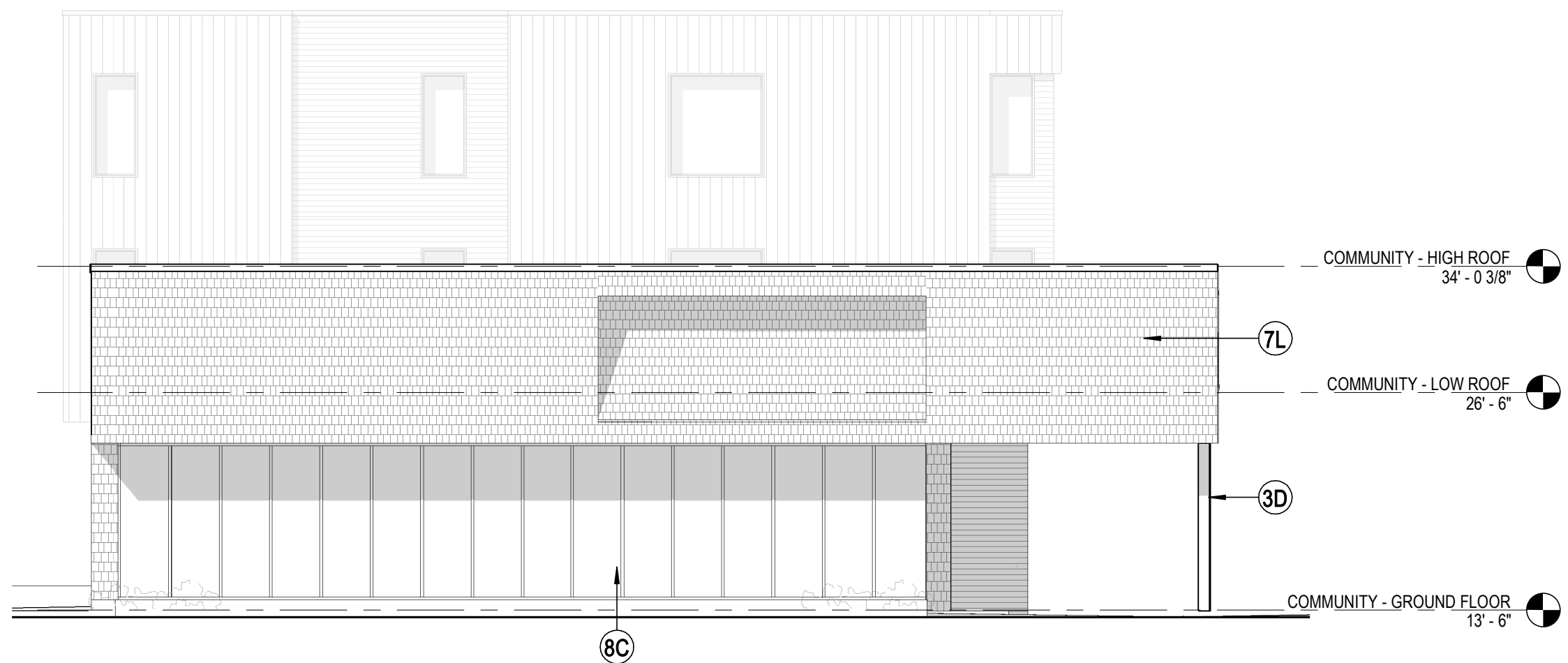
A2.03



4 BUILDING 1 - EAST ELEVATION
1/8" = 1'-0"



3 BUILDING 1 - NORTH ELEVATION
1/8" = 1'-0"



2 BUILDING 1 - SOUTH ELEVATION
1/8" = 1'-0"



1 BUILDING 1 - WEST ELEVATION
1/8" = 1'-0"

BUILDING 1 - SUMMARY

UNIT MIX

0-BED:	00
1-BED:	03
2-BED:	03
3-BED:	04
4-BED:	03
5-BED:	01
TOTAL:	14

GROSS AREA

GROUND FLOOR:	8,858 SF
LEVEL 2:	6,665 SF
LEVEL 3:	4,663 SF
TOTAL:	20,186 SF

ELEVATION KEY NOTES

- (3A) CAST-IN-PLACE CONCRETE STEM WALL W/ STUCCO FINISH, COLOR TBD.
- (3B) CAST-IN-PLACE CONCRETE LANDING
- (3C) CAST-IN-PLACE CONCRETE STEPS, AS REQ'D
- (3D) PRECAST CONCRETE COLUMNS
- (5A) PTD GALV. STEEL METAL GUARDS & HAND RAILS, COLOR TBD
- (5B) PTD GALV. STEEL FORMED METAL RAILING
- (5C) PERFORATED STEEL PANEL GUARDRAIL, CUSTOM COLOR
- (7A) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "A"
- (7B) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "B"
- (7C) PTD CEMENTITIOUS PANELS W/ PAINTED PVC OR POLY-ASH BATTENS, SPACING TBD, CUSTOM COLOR "C"
- (7D) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "D" (SIM. TO COLOR "C")
- (7E) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "E"
- (7F) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "F"
- (7G) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "G"
- (7H) 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "H"
- (7J) 1X4 T&G V-JOINT EV1S A CLEAR GRADE, W/ 2-COAT TRANSPARENT ALKYD-OIL FINISH
- (7K) PTD PVC OR POLY-ASH TRIM, COLOR OPTIONS TO CORRESPOND WITH SURROUNDING SIDING
- (7L) WOOD SHINGLE WITH SOLID STAIN, CUSTOM COLOR
- (7M) FACTORY FINISHED ALUMINUM FLASHING, TYP. AT RESIDENTIAL BUILDINGS
- (7N) ZCC FLASHING, TYP. AT COMMUNITY BUILDING
- (7P) STANDING SEAM ALUM. ROOFING
- (7R) PVC ROOFING, TYP. AT RESIDENTIAL BUILDINGS
- (7S) CEMENTITIOUS SIDING-CLAD FENCE W/ OPERABLE GATES
- (8A) VINYL HIGH PERFORMANCE WINDOWS, CASEMENT & FIXED, TBD.
- (8B) PTD FIBERGLASS DOOR W/ TRANSOM & SIDELITE
- (8C) THERMALLY BROKEN ALUM. STOREFRONT SYSTEM W/ 1" LOW-E IGUS
- (10) PVDF COATED ALUM. SIGNAGE
- (23) ROOF MOUNTED CONDENSERS BEYOND

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ARCHITECT

Ransom Consulting, Inc.

400 Commercial Street, Suite 404
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P 207 772.2891 F 207 772.3284

CIVIL & GEOTECHNICAL

Carroll Associates

217 Commercial Street, Suite 200
Portland, Maine 04101
P 207 772.1552 F 207 772.0712

LANDSCAPE

STAMP

DATE	REVISION
07/10/2019	MAINE HOUSING PRE-APP

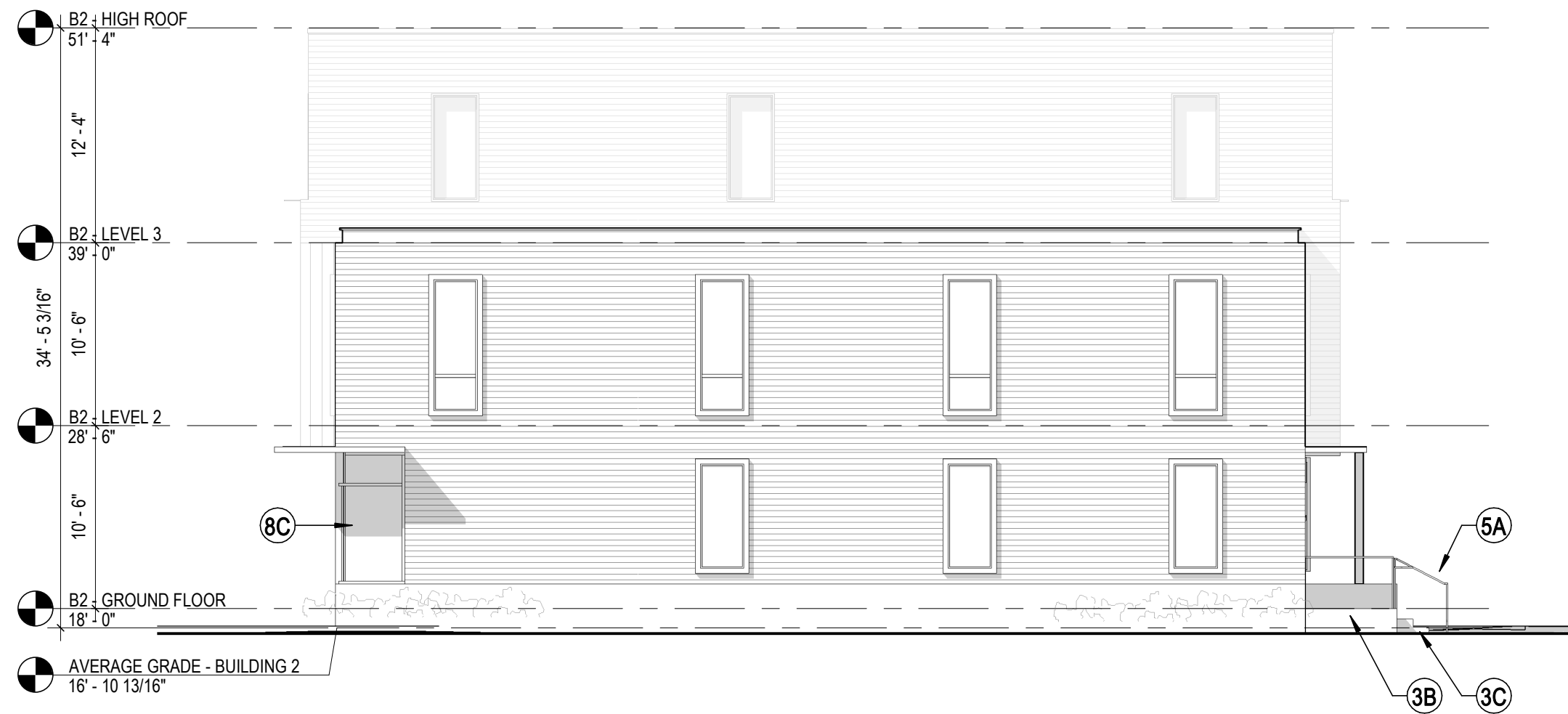
REVISIONS ON SHEET

DRAFT
NOT FOR
CONSTRUCTION

SCALE As Indicated	UTILITE PROJECT NUMBER 1514.5
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BUILDING ELEVATIONS - BUILDING 1

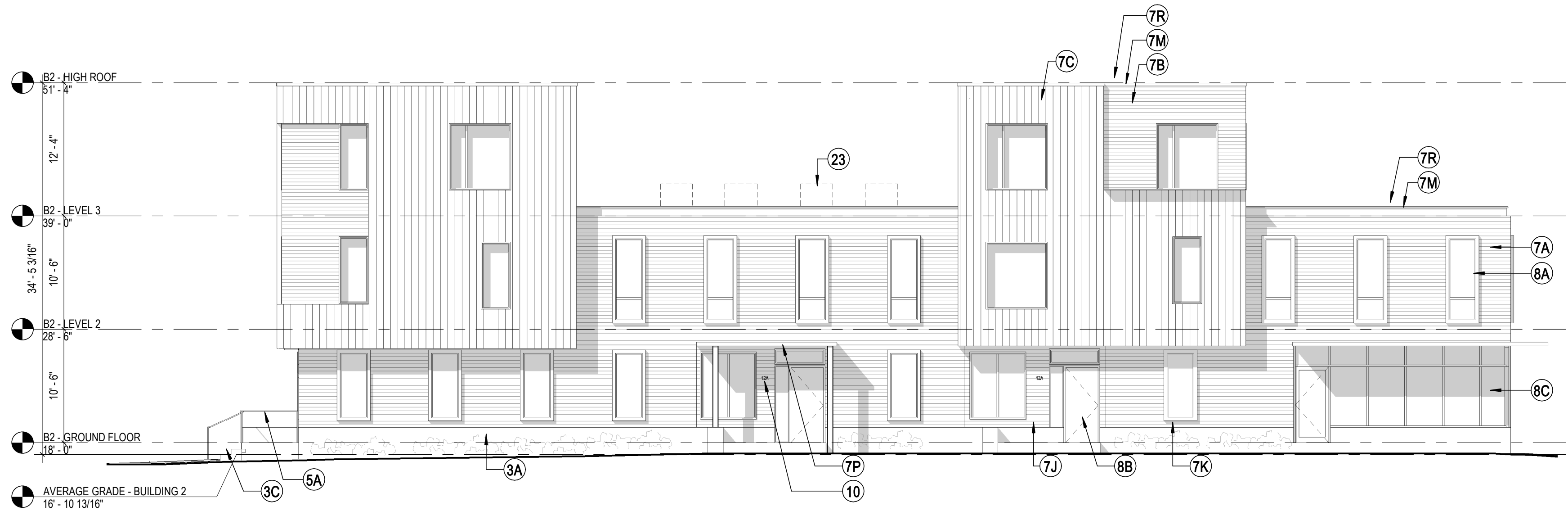
A3.01



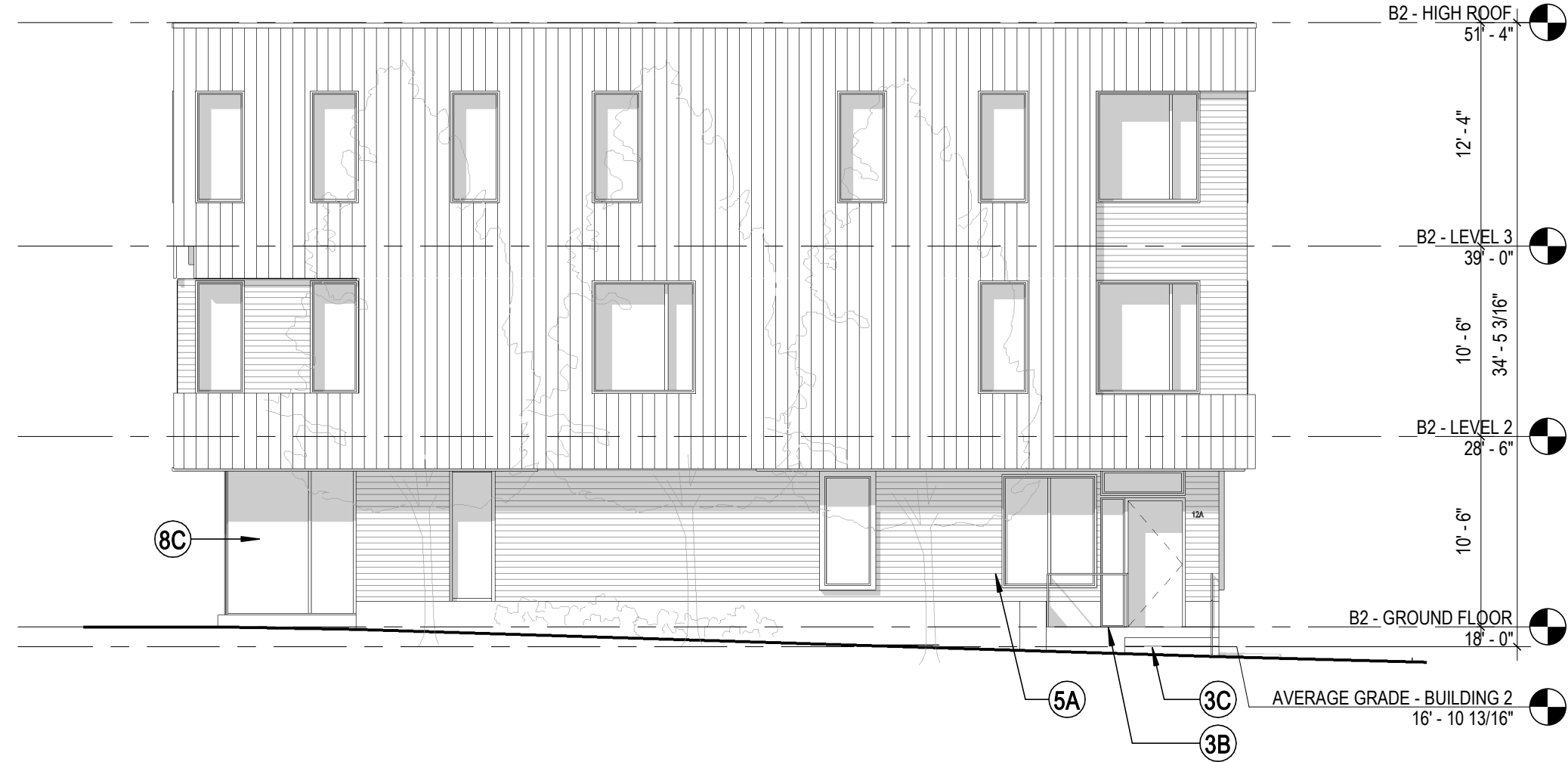
4 BUILDING 2 - EAST ELEVATION
1/8" = 1'-0"



3 BUILDING 2 - NORTH ELEVATION
1/8" = 1'-0"



2 BUILDING 2 - SOUTH ELEVATION
1/8" = 1'-0"



1 BUILDING 2 - WEST ELEVATION
1/8" = 1'-0"

BUILDING 2 - SUMMARY

UNIT MIX

0-BED:	00
1-BED:	03
2-BED:	04
3-BED:	03
4-BED:	03
5-BED:	00
TOTAL:	13

GROSS AREA

GROUND FLOOR:	6,227 SF
LEVEL 2:	6,582 SF
LEVEL 3:	3,253 SF
TOTAL:	16,062 SF

ELEVATION KEY NOTES

- 3A CAST-IN-PLACE CONCRETE STEM WALL W/ STUCCO FINISH, COLOR TBD.
- 3B CAST-IN-PLACE CONCRETE LANDING
- 3C CAST-IN-PLACE CONCRETE STEPS, AS REQ'D
- 3D PRECAST CONCRETE COLUMNS
- 5A PTD GALV. STEEL METAL GUARDS & HAND RAILS, COLOR TBD
- 5B PTD GALV. STEEL FORMED METAL RAILING
- 5C PERFORATED STEEL PANEL GUARDRAIL, CUSTOM COLOR
- 7A 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "A"
- 7B 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "B"
- 7C PTD CEMENTITIOUS PANELS W/ PAINTED PVC OR POLY-ASH BATTENS, SPACING TBD, CUSTOM COLOR "C"
- 7D 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "D" (SIM. TO COLOR "C")
- 7E 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "E"
- 7F 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "F"
- 7G 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "G"
- 7H 4" PTD. CEMENTITIOUS CLAPBOARD, CUSTOM COLOR "H"
- 7J 1X4 T&G V-JOINT EVIS A CLEAR GRADE, W/ 2-COAT TRANSPARENT ALKYD-OIL FINISH
- 7K PTD PVC OR POLY-ASH TRIM, COLOR OPTIONS TO CORRESPOND WITH SURROUNDING SIDING
- 7L WOOD SHINGLE WITH SOLID STAIN, CUSTOM COLOR
- 7M FACTORY FINISHED ALUMINUM FLASHING, TYP. AT RESIDENTIAL BUILDINGS
- 7N ZOC FLASHING, TYP. AT COMMUNITY BUILDING
- 7P STANDING SEAM ALUM. ROOFING
- 7R PVC ROOFING, TYP. AT RESIDENTIAL BUILDINGS
- 7S CEMENTITIOUS SIDING-CLAD FENCE W/ OPERABLE GATES
- 8A VINYL HIGH PERFORMANCE WINDOWS, CASEMENT & FIXED, TBD.
- 8B PTD FIBERGLASS DOOR W/ TRANSOM & SIDELITE
- 8C THERMALLY BROKEN ALUM. STOREFRONT SYSTEM W/ 1" LOW-E IGUS
- 10 PVDF COATED ALUM. SIGNAGE
- 23 ROOF MOUNTED CONDENSERS BEYOND

PHA FRONT STREET DEVELOPMENT

37 & 63 Front Street
Portland, Maine 04103

PROJECT

FRONT STREET
REDEVELOPMENT, LP

14 Baxter Boulevard
Portland, Maine 04101
P 207 773.4753

OWNER

utile
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CIVIL &
GEOTECHNICAL

Carroll Associates

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LANDSCAPE

STAMP

DATE REVISION

07/10/2019 MAINE HOUSING PRE-APP

REVISIONS ON SHEET

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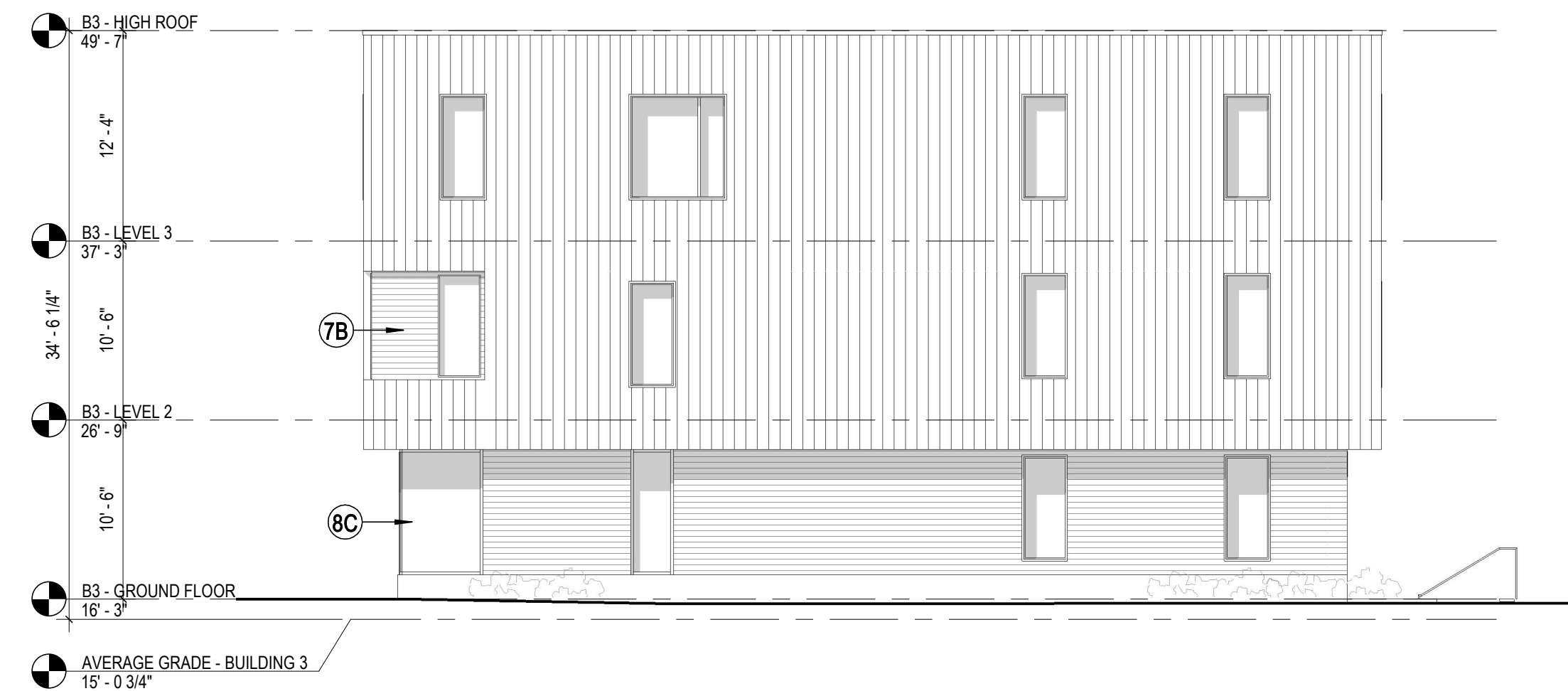
SCALE UTILITE PROJECT NUMBER
As Indicated 1514.5

BUILDING ELEVATIONS -
BUILDING 2

A3.02



4 BUILDING 3 - EAST ELEVATION
1/8" = 1'-0"



3 BUILDING 3 - SOUTH ELEVATION
1/8" = 1'-0"



2 BUILDING 3 - NORTH ELEVATION
1/8" = 1'-0"



1 BUILDING 3 - WEST ELEVATION
1/8" = 1'-0"

BUILDING 3 - SUMMARY

UNIT MIX	
0-BED:	02
1-BED:	03
2-BED:	01
3-BED:	11
4-BED:	02
5-BED:	01
TOTAL:	20

GROSS AREA	
GROUND FLOOR:	9,467 SF
LEVEL 2:	10,077 SF
LEVEL 3:	6,164 SF
TOTAL:	25,709 SF

ELEVATION KEY NOTES

- 3A CAST-IN-PLACE CONCRETE STEM WALL W/ STUCCO FINISH, COLOR TBD.
- 3B CAST-IN-PLACE CONCRETE LANDING
- 3C CAST-IN-PLACE CONCRETE STEPS, AS REQ'D
- 3D PRECAST CONCRETE COLUMNS
- 5A PTD GALV. STEEL METAL GUARDS & HAND RAILS; COLOR TBD
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- 8C THERMALLY BROKEN ALUM. STOREFRONT SYSTEM W/ 1" LOW-E IGUS
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LANDSCAPE

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SCALE As Indicated	UTILITE PROJECT NUMBER 1514.5
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**BUILDING ELEVATIONS -
BUILDING 3**

A3.03



4-BUILDING 4 - EAST ELEVATION

1/8" = 1'-0"



3-BUILDING 4 - NORTH ELEVATION

1/8" = 1'-0"



2-BUILDING 4 - SOUTH ELEVATION

1/8" = 1'-0"



1-BUILDING 4 - WEST ELEVATION

1/8" = 1'-0"

BUILDING 4 - SUMMARY

UNIT MIX

0-BED:	00
1-BED:	03
2-BED:	04
3-BED:	04
4-BED:	02
5-BED:	00
TOTAL:	13

GROSS AREA

GROUND FLOOR:	6,242 SF
LEVEL 2:	6,583 SF
LEVEL 3:	3,253 SF
TOTAL:	16,078 SF

ELEVATION KEY NOTES

- 3A CAST-IN-PLACE CONCRETE STEM WALL W/ STUCCO FINISH, COLOR TBD.
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LANDSCAPE

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SCALE UTILE PROJECT NUMBER
As Indicated 1514.5

BUILDING ELEVATIONS -
BUILDING 4

A3.04

1 BUILDING 5 - SOUTH ELEVATION

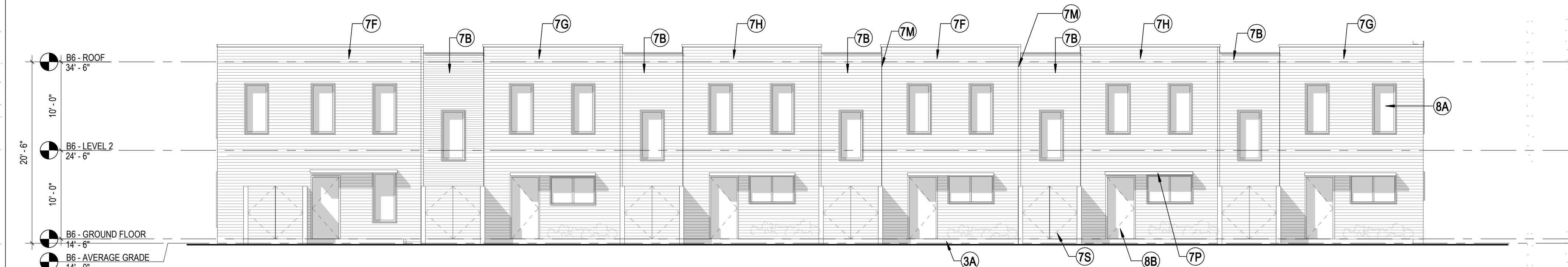


8 BUILDING 7 - NORTH ELEVATION
1/8" = 1'-0"

7 BUILDING 7 - WEST ELEVATION
1/8" = 1'-0"

6 BUILDING 7 - SOUTH ELEVATION
1/8" = 1'-0"

5 BUILDING 7 - EAST ELEVATION
1/8" = 1'-0"



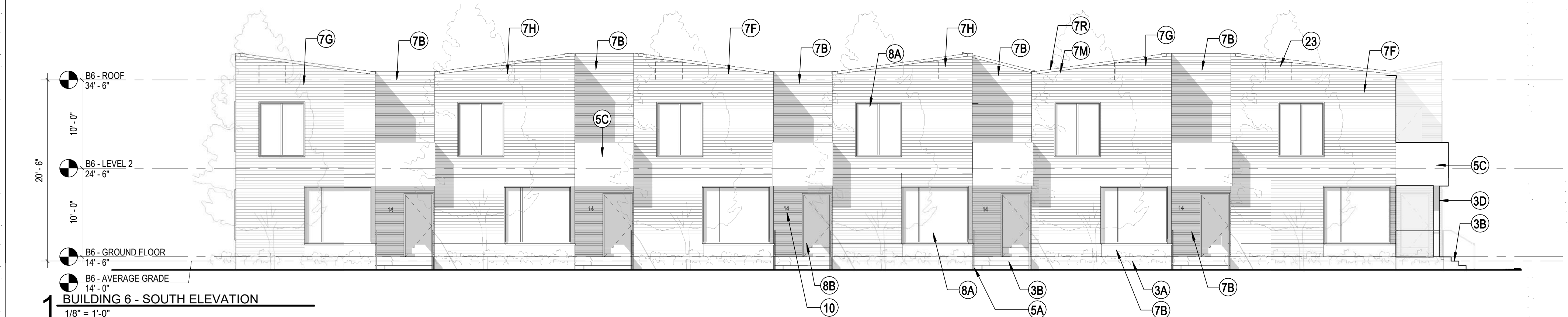
4 BUILDING 6 - NORTH ELEVATION
1/8" = 1'-0"



3 BUILDING 6 - WEST ELEVATION
1/8" = 1'-0"



2 BUILDING 6 - EAST ELEVATION
1/8" = 1'-0"



1 BUILDING 6 - SOUTH ELEVATION
1/8" = 1'-0"

BUILDING 6 - SUMMARY	
UNIT MIX	
0-BED:	00
1-BED:	00
2-BED:	06
3-BED:	00
4-BED:	00
5-BED:	00
TOTAL:	06
GROSS AREA	
GROUND FLOOR:	3,447 SF
LEVEL 2:	3,449 SF
TOTAL:	6,896 SF

BUILDING 7 - SUMMARY	
UNIT MIX	
0-BED:	00
1-BED:	00
2-BED:	00
3-BED:	02
4-BED:	00
5-BED:	00
TOTAL:	02
GROSS AREA	
GROUND FLOOR:	1,444 SF
LEVEL 2:	1,444 SF
TOTAL:	2,888 SF

ELEVATION KEY NOTES

- 3A CAST-IN-PLACE CONCRETE STEM WALL W/ STUCCO FINISH, COLOR TBD.
- 3B CAST-IN-PLACE CONCRETE LANDING
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LANDSCAPE

STAMP

DATE	REVISION
07/09/2019	SITE PLAN APPLICATION

REVISIONS ON SHEET

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NOT FOR
CONSTRUCTION

SCALE As indicated	UTILE PROJECT NUMBER 1514.5
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BUILDING ELEVATIONS -
BUILDINGS 6 & 7

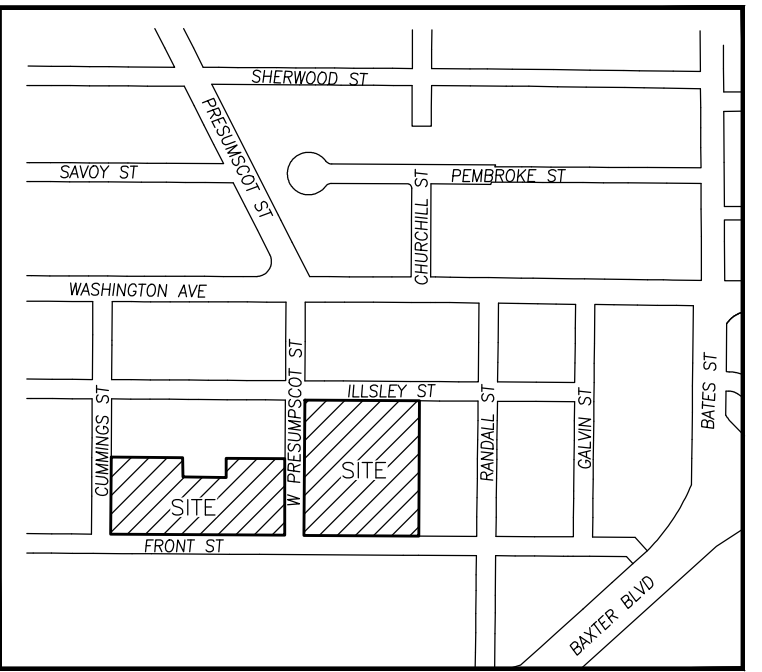
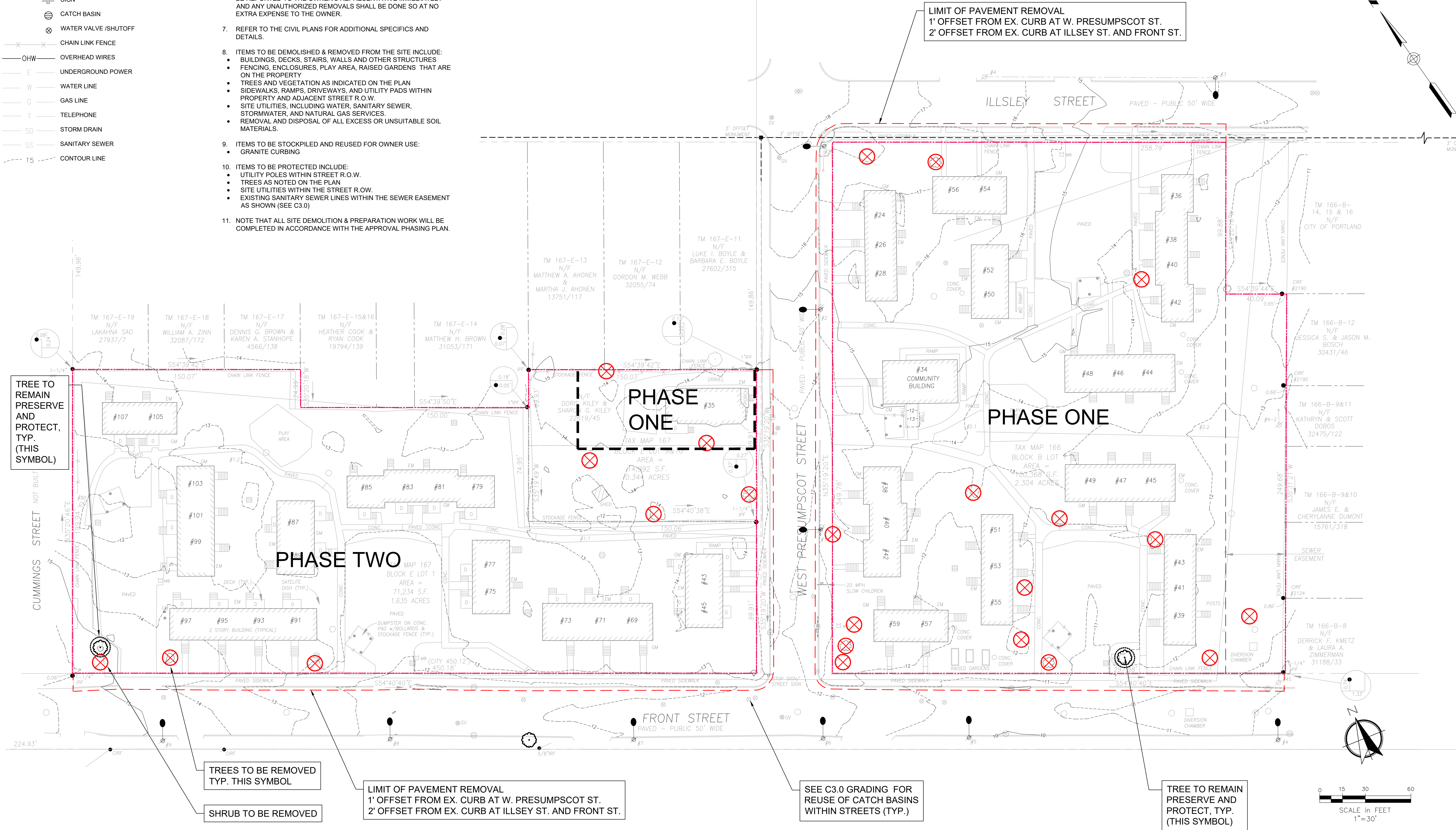
A3.06

EXISTING

- PROPERTY LINE
- ⊗ DECIDUOUS TREE (preserved)
- ⊗ DECIDUOUS TREE (to be removed)
- CURB
- EDGE OF PAVING
- BUILDING OUTLINE
- ☼ POLE LIGHT
- ☼ FIRE HYDRANT
- MANHOLE
- EM/GM ELEC / GAS METER
- UTILITY POLE
- STREET LIGHT
- SIGN
- ⊗ CATCH BASIN
- ⊗ WATER VALVE / SHUTOFF
- CHAIN LINK FENCE
- OHW OVERHEAD WIRES
- E UNDERGROUND POWER
- W WATER LINE
- G GAS LINE
- T TELEPHONE
- SD STORM DRAIN
- SS SANITARY SEWER
- 15 CONTOUR LINE

DEMO + SITE PREP NOTES:

- ALL TREES TO BE PRESERVED SHALL BE PROTECTED WITHIN APPROVED FENCING OR BARRIERS AT THE EXISTING DRIPLINE. SEE DETAIL 3, SHEET L3.1
- NO EQUIPMENT OR MATERIALS SHALL BE PLACED OR STORED WITHIN THE PROTECTED DRIPLINE AREA OF PRESERVED TREES
- ALL TREES TO BE PRESERVED SHALL BE MONITORED ON A REGULAR BASIS FOR SIGNS OF STRESS OR OTHER IMPACT DUE TO CONSTRUCTION AND APPROPRIATE TREE CARE SHALL BE INITIATED IMMEDIATELY.
- OWNER SHALL RETAIN A LICENSED ARBORIST TO PREPARE A TREE CARE PROGRAM FOR ALL PRESERVED TREES TO INCLUDE PRE, DURING AND POST CONSTRUCTION MANAGEMENT.
- TREE MANAGEMENT SHALL CONSIST OF SELECT PRUNING, WATERING, FERTILIZATION, AND AERATION AS REQUIRED AND SPECIFIED TO EACH TREE SPECIES.
- THE CONTRACTOR IS ADVISED THAT ANY UNFORESEEN SUBSURFACE CONDITIONS ENCOUNTERED DURING THE COURSE OF WORK SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY AND ANY UNAUTHORIZED REMOVALS SHALL BE DONE SO AT NO EXTRA EXPENSE TO THE OWNER.
- REFER TO THE CIVIL PLANS FOR ADDITIONAL SPECIFICS AND DETAILS.
- ITEMS TO BE DEMOLISHED & REMOVED FROM THE SITE INCLUDE:
 - BUILDINGS, DECKS, STAIRS, WALLS AND OTHER STRUCTURES
 - FENCING, ENCLOSURES, PLAY AREA, RAISED GARDENS THAT ARE ON THE PROPERTY
 - TREES AND VEGETATION AS INDICATED ON THE PLAN
 - SIDEWALKS, RAMPS, DRIVEWAYS, AND UTILITY PADS WITHIN PROPERTY AND ADJACENT STREET R.O.W.
 - SITE UTILITIES, INCLUDING WATER, SANITARY SEWER, STORMWATER, AND NATURAL GAS SERVICES.
 - REMOVAL AND DISPOSAL OF ALL EXCESS OR UNSUITABLE SOIL MATERIALS.
- ITEMS TO BE STOCKPILED AND REUSED FOR OWNER USE:
 - GRANITE CURBING
- ITEMS TO BE PROTECTED INCLUDE:
 - UTILITY POLES WITHIN STREET R.O.W.
 - TREES AS NOTED ON THE PLAN
 - SITE UTILITIES WITHIN THE STREET R.O.W.
 - EXISTING SANITARY SEWER LINES WITHIN THE SEWER EASEMENT AS SHOWN (SEE C3.0)
- NOTE THAT ALL SITE DEMOLITION & PREPARATION WORK WILL BE COMPLETED IN ACCORDANCE WITH THE APPROVAL PHASING PLAN.



LOCATION MAP
SCALE: NTS

APPLICANT:

FRONT STREET
REDEVELOPMENT, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

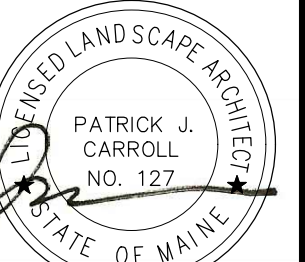
OWNER:

PORTLAND HOUSING
AUTHORITY
14 BAXTER BLVD
PORTLAND, MAINE 04101

FRONT STREET DEVELOPMENT

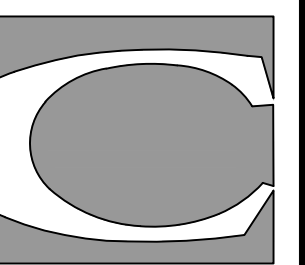
Project:

Revisions	Date	Description
2	07/09/2019	REVISIONS - LEVEL III
1	06/22/2019	LEVEL III SITE PLAN



SITE DEMO AND PREP PLAN

Phase:
PERMITTING



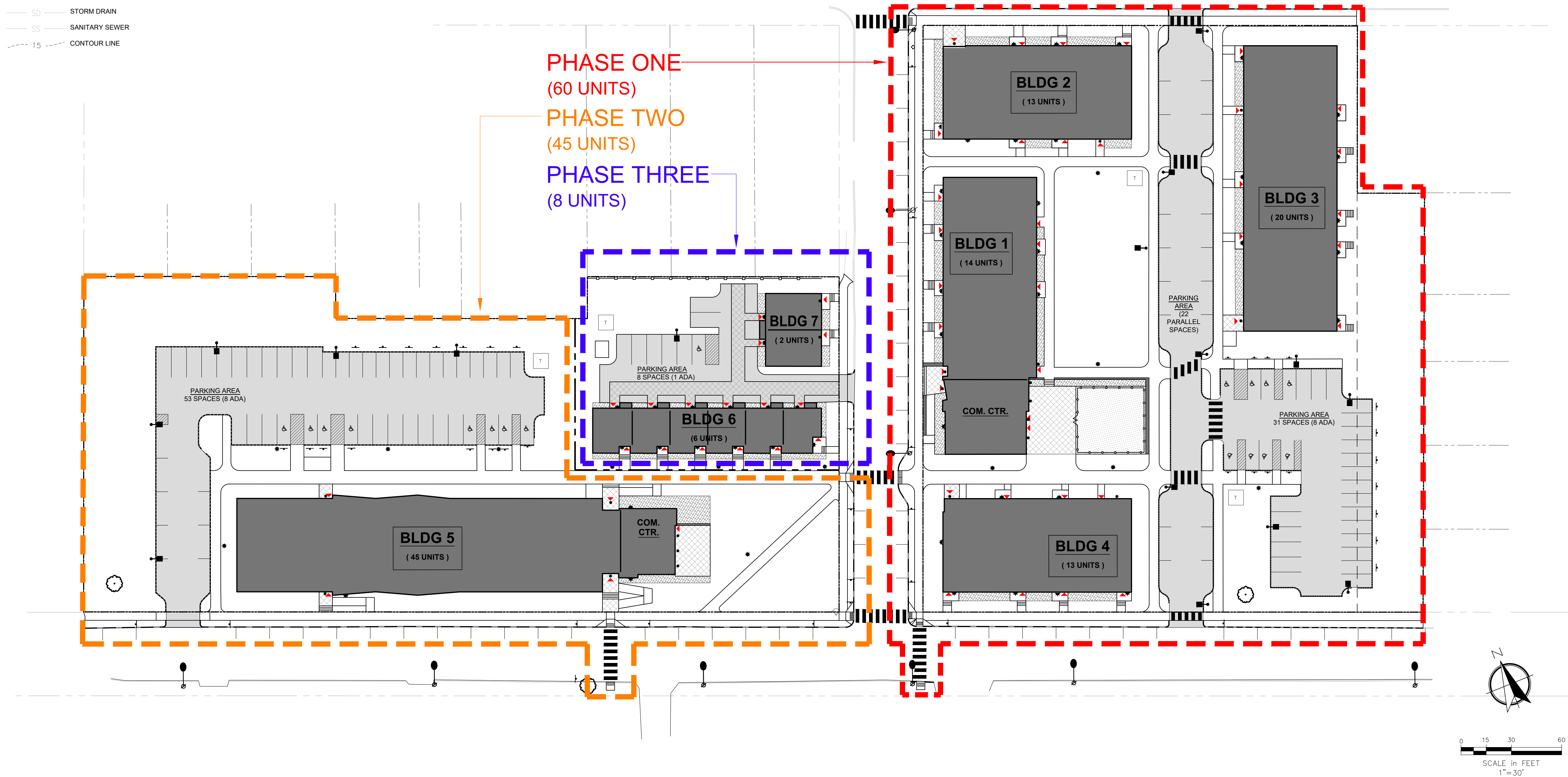
CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1652 V. F. 207.772.0112

Date:
MARCH 14, 2018

Sheet No:

C-1.0

C-2.0



PHASE 1 - INTERIM PARKING PLAN
SCALE: 1"=30'-0"

FRONT STREET DEVELOPMENT

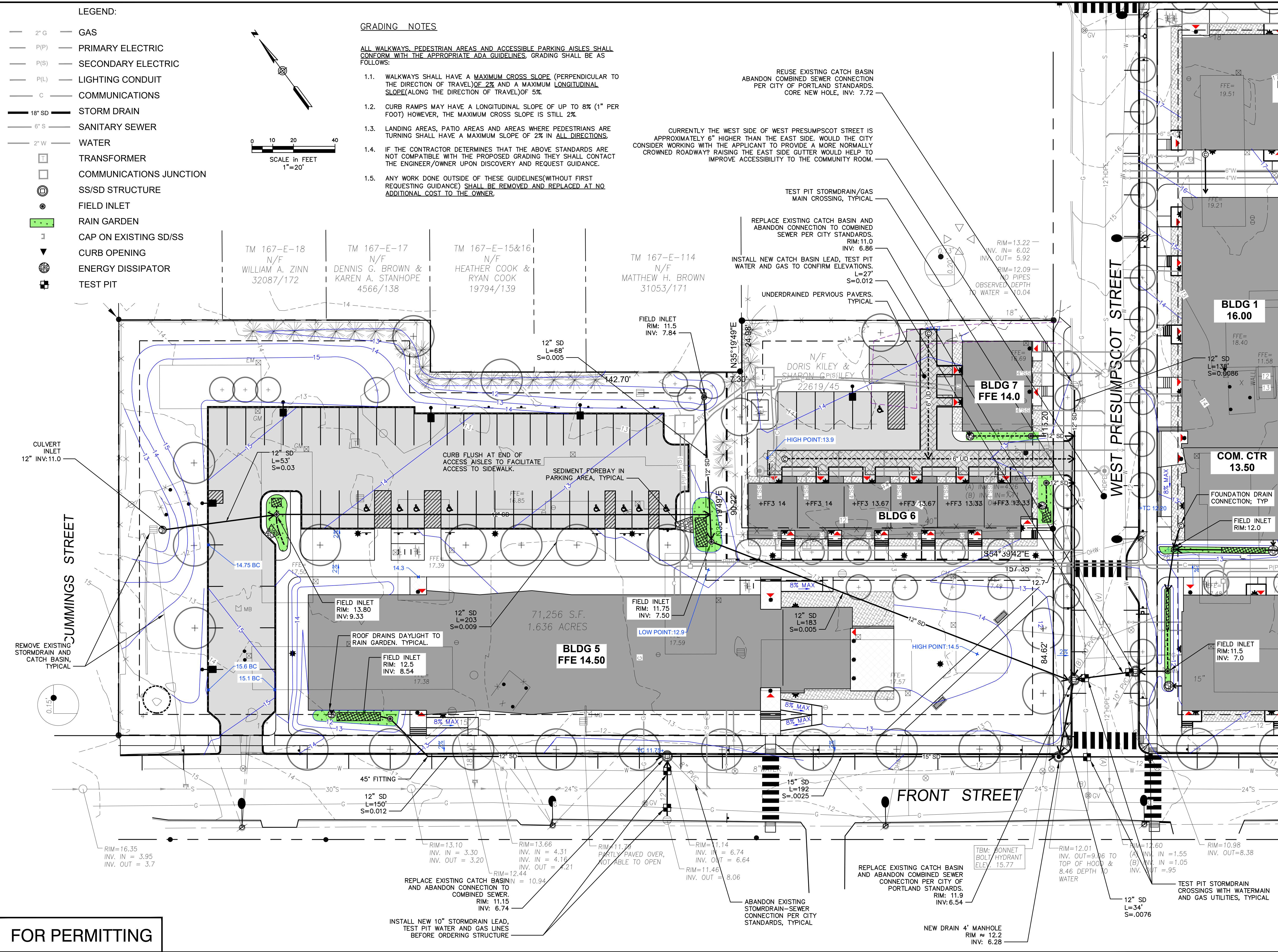
3	07.16.2019	REVISIONS - LEVEL III			
2	07.09.2019	REVISIONS - LEVEL III			
1	05.22.2019	LEVEL III SITE PLAN			



PHASING PLAN



C-2.1



FOR PERMITTING

Front Street Redevelopment

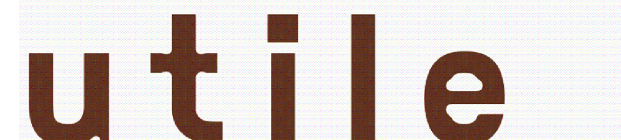
Front Street
Portland, ME

Applicant:

 **PORTLAND HOUSING MAINE**

FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
PORTLAND, ME 04101

Consultants:

 **utile**

Utile, Inc. | Architecture + Planning
50 Summer Street | Boston, MA 02110

Architect:

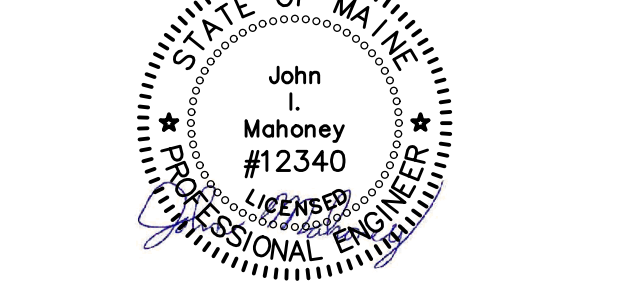
Utile
50 Summer St
Boston, MA 02111
(617) 423-7200

 **CARROLL ASSOCIATES**
LANDSCAPE ARCHITECTS

Landscape Architect
Carroll Associates
217 Commercial Street
Portland, Maine 04101
207.772.1552

 **RANSOM**
Consulting, Inc.

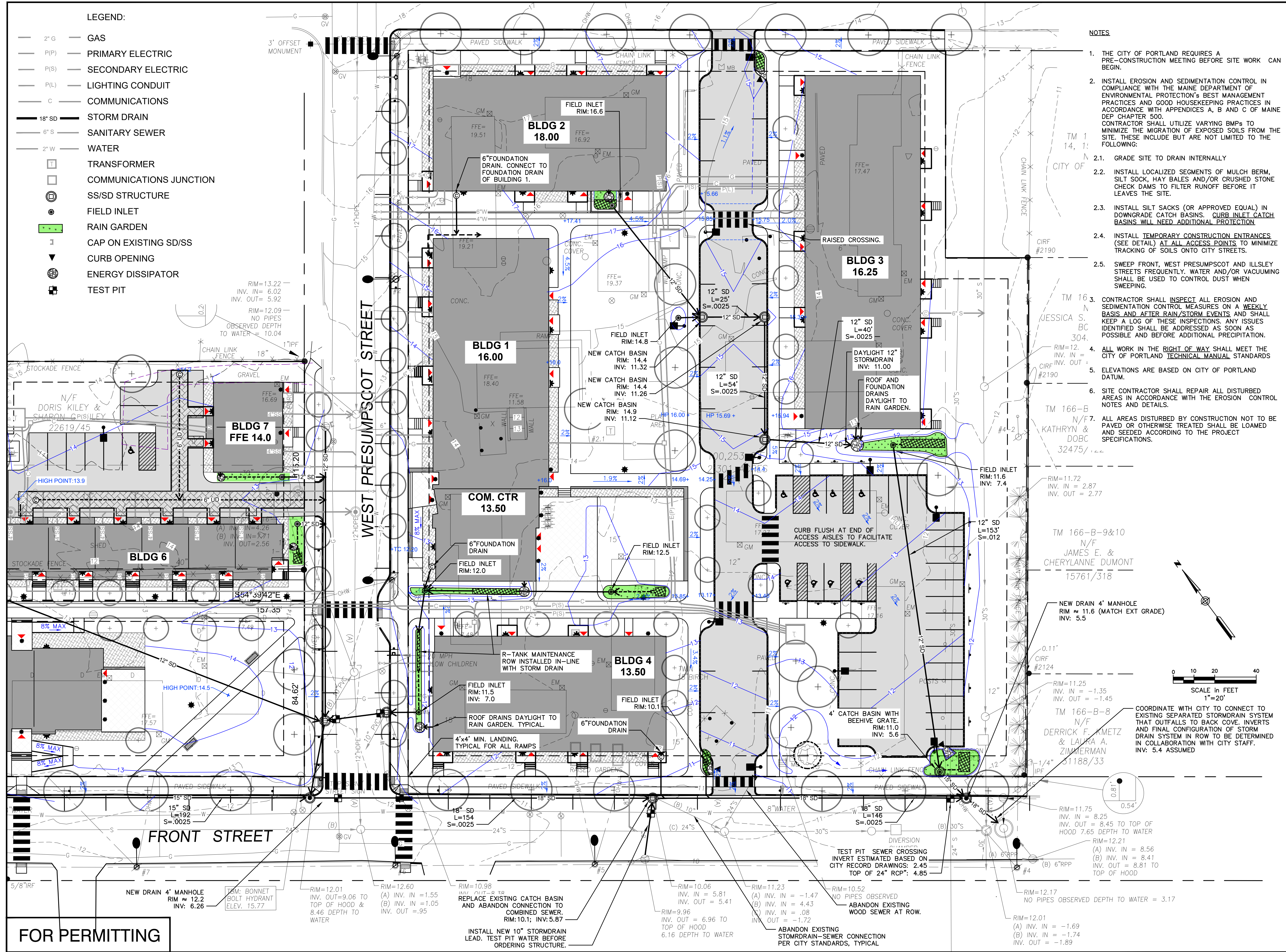
Civil Engineer
Ransom Consulting, Inc.
400 Commercial Street, Suite 404
Portland, Maine 04101
207.772.2891



GRADING AND DRAINAGE - WEST PARCEL

D	RESPONSE TO COMMENTS	7-9-19
C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
A	PERMITTING	10-10-17
No.	Revision/Issue	Date
Design by:	JIM	Checked by: SJB
Drawn by:	TGN	Approved by: SJB
Project:	151.06170	
Sheet No:		

C-3.1



Front Street Redevelopment

Front Street
Portland, ME

Applicant:



FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
PORTLAND, ME 04101

Consultants:



Utile, Inc. | Architecture + Planning
50 Summer Street | Boston, MA 02110

Architect:
Utile
50 Summer St
Boston, MA 02111
(617) 423-7200



Landscape Architect
Carroll Associates
217 Commercial Street
Portland, Maine 04101
207.772.1552



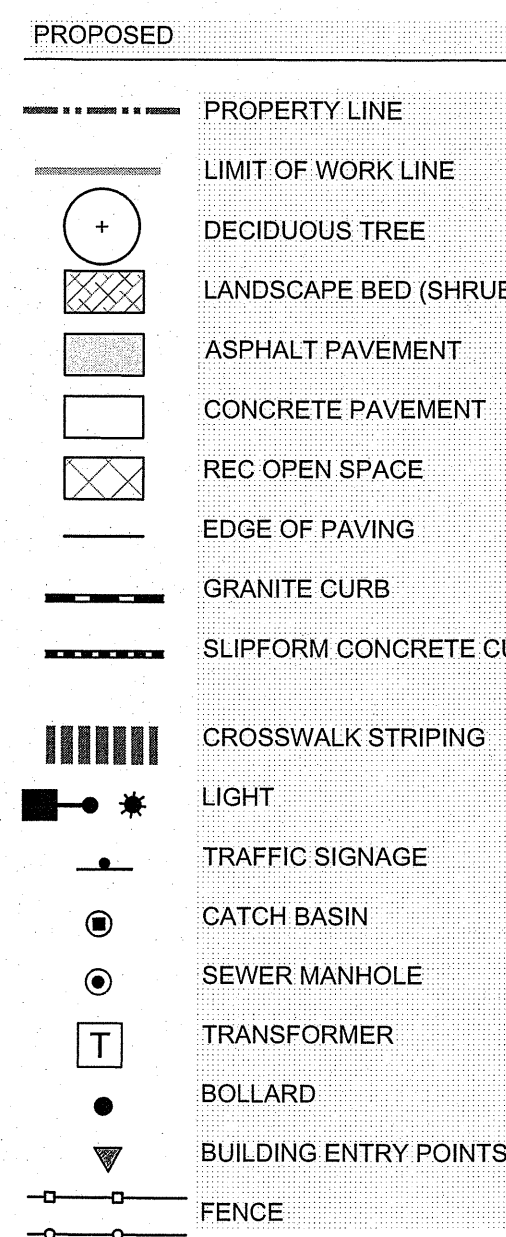
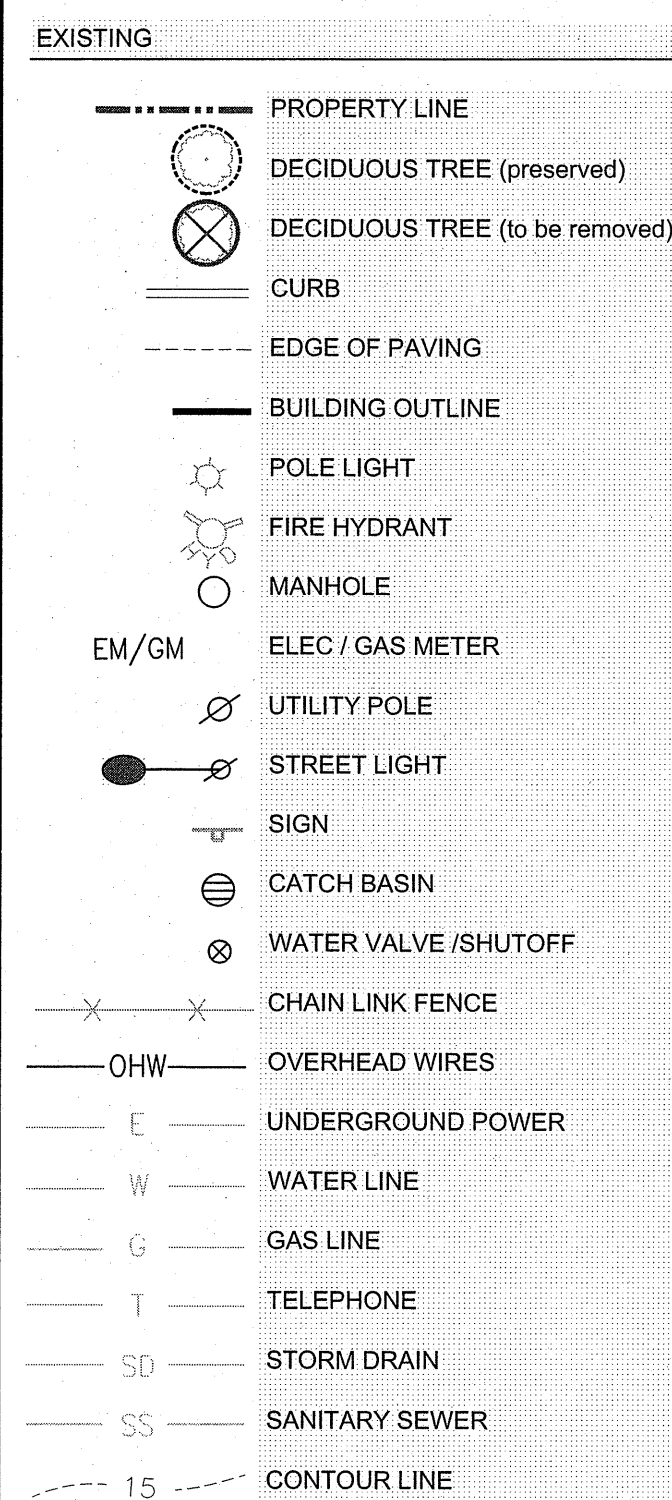
Civil Engineer
Ransom Consulting, Inc.
400 Commercial Street, Suite 404
Portland, Maine 04101
207-772-2891



GRADING AND DRAINAGE - EAST PARCEL

D	RESPONSE TO COMMENTS	7-9-19
C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
A	PERMITTING	10-10-17
No.	Revision/Issue	Date
Design by:	JIM	SJB
Drawn by:	TGN	SJB
Project:	151.06170	
Sheet No:		

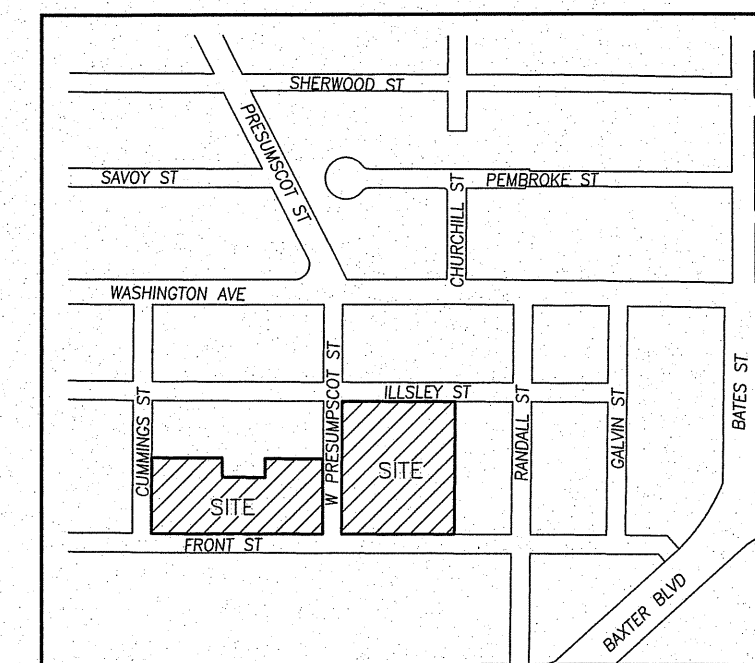
C-3.2



GENERAL NOTES:

- | | | |
|--|---|--|
| 1. TOTAL SITE AREA: | ±4.283 ACRES (±186,594 SF) | 11. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES IN THE FIELD AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES. |
| 2. ZONING DISTRICT: | RESIDENTIAL ZONE (R-5) | 12. ALL DIMENSIONS SHOWN ARE TO FACE OF ALL WALLS, BUILDINGS, CURBS, AND OTHER SITE ELEMENTS UNLESS OTHERWISE NOTED. |
| 3. OWNER: | PORTLAND HOUSING AUTHORITY
14 BAXTER BLVD.
PORTLAND, ME 04101
(207) 773.4753 | 13. EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE ONLY. CALL DIG-SAFE PRIOR TO BEGINNING WORK (1-800-225-4977). |
| APPLICANT: | FRONT STREET HOUSING, LP
C/O PORTLAND HOUSING DEVELOPMENT
14 BAXTER BLVD.
PORTLAND, ME 04101
(207) 773.4753 | 14. ALL EXISTING VEGETATION TO BE PRESERVED AS SHOWN ON PLANS. PROVIDE A SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING. AREAS NOT REQUIRING GRADING SHALL BE LEFT UNDISTURBED. |
| 4. TAX MAP | 166, BLOCK B LOT 1
167, BLOCK E LOT 1, 9 + 10 | 15. STORAGE OR PARKING WILL NOT BE ALLOWED OVER THE ROOTS OF VEGETATION WHICH ARE TO BE PRESERVED. |
| 5. BOOK AND PAGE: | CCRD BOOK 3196, PAGE 834 (166 B 1 + 167 E 1)
CCRD BOOK 22619, PAGE 45 (167 E 9+10) | 16. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS REQUIRED FOR THE WORK ON THESE PLANS. |
| 6. PROJECT ADDRESS: | ILLSLEY, FRONT & WEST PRESUMPSCOT STREETS | 17. ALL WORK SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS. |
| 7. BOUNDARY, TOPOGRAPHY, AND EXISTING CONDITIONS INFORMATION TAKEN FROM A PLAN TITLED: "BOUNDARY & TOPOGRAPHIC SURVEY" ON FRONT STREET, ILLSELY STREET & WEST PRESUMPSCOT STREET, PORTLAND, MAINE, MADE FOR PORTLAND HOUSING AUTHORITY, 14 BAXTER BLVD., PORTLAND, MAINE 04101, DATED DECEMBER 15, 2015 WITH A REVISION DATE OF MARCH 5, 2018. PREPARED BY OWEN HASKELL, INC. 390 US ROUTE ONE, FALMOUTH, ME 04105, TELEPHONE 207.774.0424 | | |
| 8. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, MAINE WEST NAD 83. | | |
| 9. BENCHMARK: CITY POINT MDLOT-PO-295 ELEVATION 12.00' | | |

18. ALL AREAS DISTURBED OR WORK REQUIRED WITHIN TEMPORARY CONSTRUCTION AREAS ON PROPERTY SHALL BE REPAIRED BY RE-PAVING OR LOAM/SEEDING AS REQUIRED TO RETURN THE SITE TO PRE-CONSTRUCTION CONDITIONS.
19. ALL WORK WITHIN THE RIGHT-OF-WAY MUST BE COORDINATED WITH THE DEPARTMENT OF PUBLIC SERVICES.
20. ALL EXTERIOR MECHANICAL EQUIPMENT WILL BE SCREENED FROM PUBLIC STREETS AND ADJACENT SITES BY STRUCTURE WALLS, EVERGREEN LANDSCAPING, FENCING, MASONRY WALLS OR A COMBINATION THEREOF.
21. SNOW MAY BE STORED WITHIN THE TEMPORARY SNOW STORAGE AREAS ONLY. ANY SNOW THAT CANNOT BE STORED ON-SITE SHALL BE PHYSICALLY REMOVED AND TRANSPORTED OFF-SITE WITHIN 24-48 HOURS FOLLOWING A STORM. SNOW TRANSPORTED OFF-SITE SHALL BE BROUGHT TO A MAINE DEP APPROVED 'SNOW DUMP' OR MEET THE EXEMPTION REQUIREMENT SPECIFIED WITHIN CHAPTER 673 WHEN THE ABOVE REQUIREMENTS CANNOT BE MET DUE TO AN ABUNDANCE OF SNOW. THE SNOW CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO VEGETATION, LANDSCAPING, CURBING, LIGHTING, FENCING, ETC. RESULTING FROM THEIR ACTIVITIES. THE SNOW CONTRACTOR SHALL USE SALT OR CHLORIDE SUBSTITUTE TO DEICE THE PARKING LOT. THE BUILDING OWNER / ASSOCIATION IS RESPONSIBLE FOR SNOW REMOVAL BEING UNDERTAKEN IN A TIMELY FASHION.



LOCATION MAP

SCALE: NTS

<u>City of Portland Planning Board</u>	
	Chairman
	Board Members
	Date
"Approved: City of Portland Planning Board"	

APPLICANT:

FRONT STREET
REDEVELOPMENT, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

OWNER:

PORTLAND HOUSING
AUTHORITY
14 BAXTER BLVD
PORTLAND, MAINE 04101

FRONT STREET DEVELOPMENT

Project:

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	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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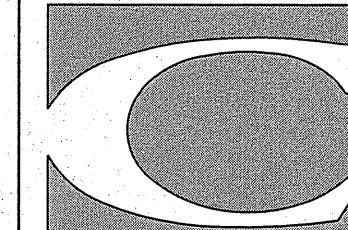
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Signed By:

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By: MF

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CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

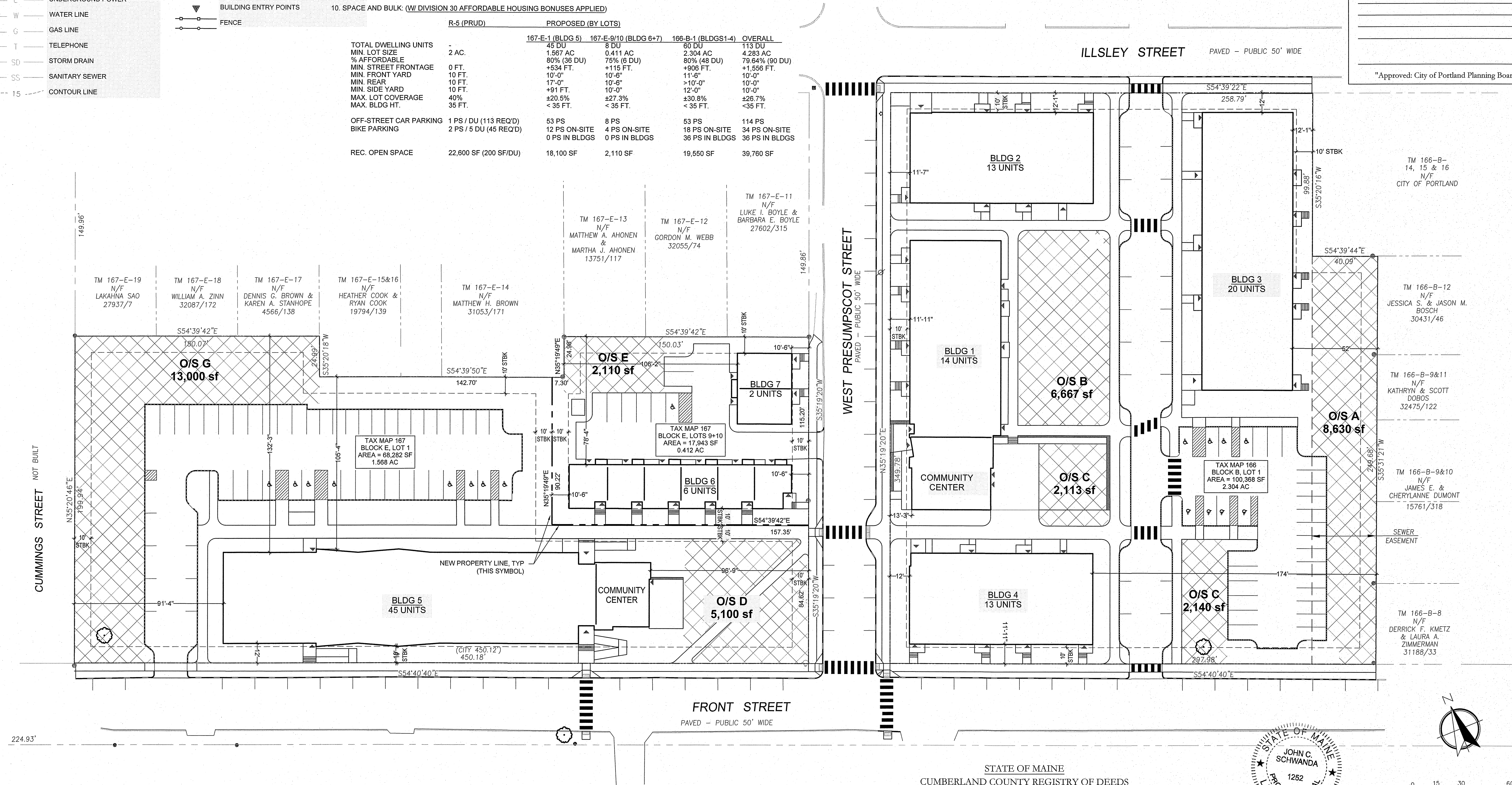
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date: MARCH 14, 2018

Sheet No:

C

C-3.0



STATE OF MAINE

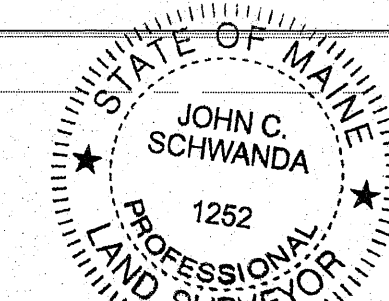
CUMBERLAND COUNTY REGISTRY OF DEEDS

RECEIVED _____, 20____

AT hr. min. AND RECORDED IN

PLAN BOOK , PAGE .

ATTEST _____ REGISTER _____



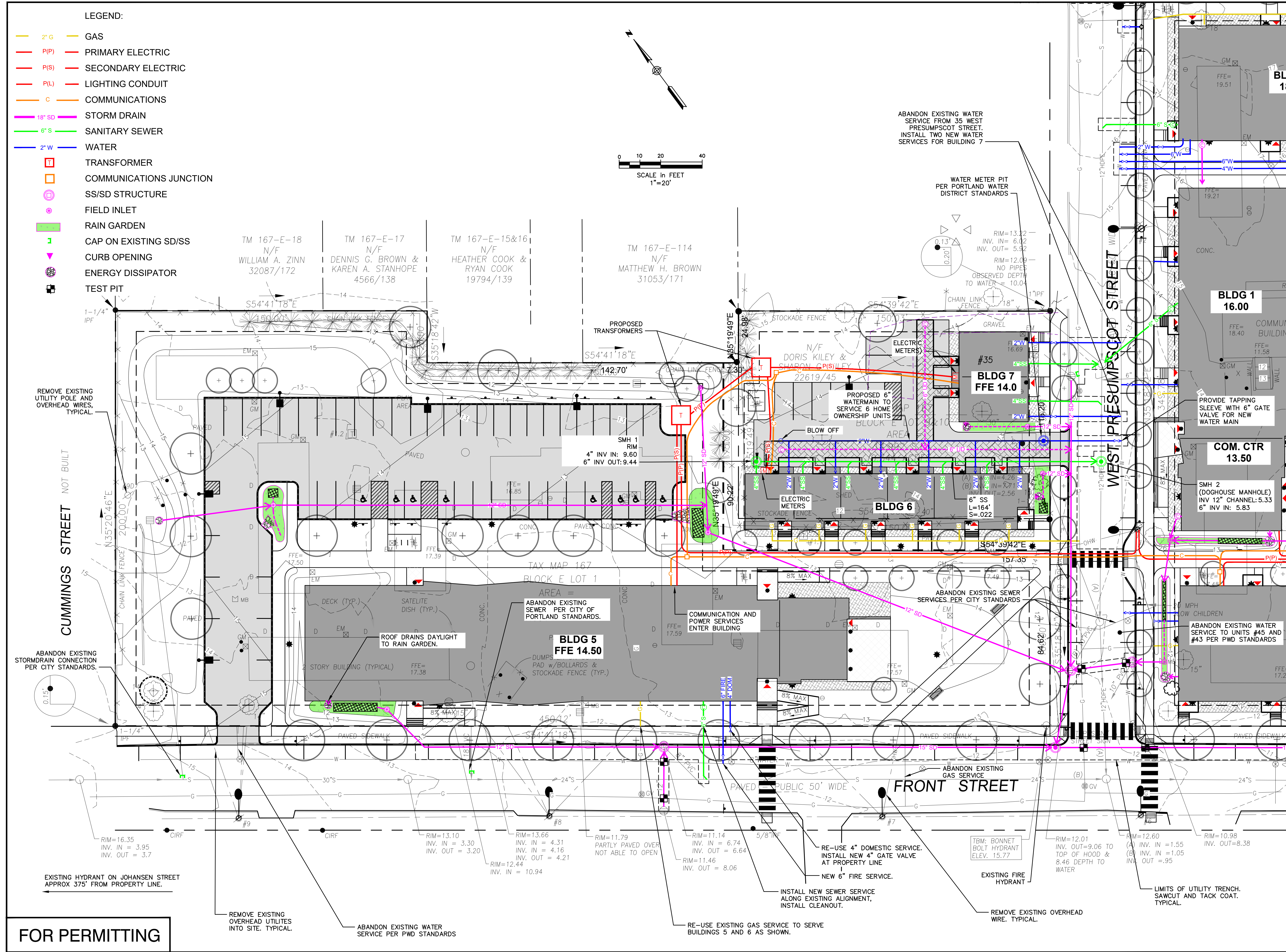
For Boundary & Existing Conditions Only



0 15 30 60

SCALE in FEET

1" = 30'



Front Street Redevelopment

Front Street
Portland, ME

Applicant:

PORTLAND HOUSING
MAINE

FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
PORTLAND, ME 04101

Consultants:

utile

Utile, Inc. | Architecture + Planning
50 Summer Street | Boston, MA 02110

Architect:

Utile
50 Summer St
Boston, MA 02111
(617) 423-7200

CARROLL ASSOCIATES
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Landscape Architect
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217 Commercial Street
Portland, Maine 04101
207.772.1552

RANSOM
Consulting, Inc.

Civil Engineer
Ransom Consulting, Inc.
400 Commercial Street, Suite 404
Portland, Maine 04101
207-772-2891

UTILITY PLAN WEST PARCEL

D	RESPONSE TO COMMENTS	7-9-19
C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
A	PERMITTING	10-10-17

Design by:
JIM

Checked by:
SJB

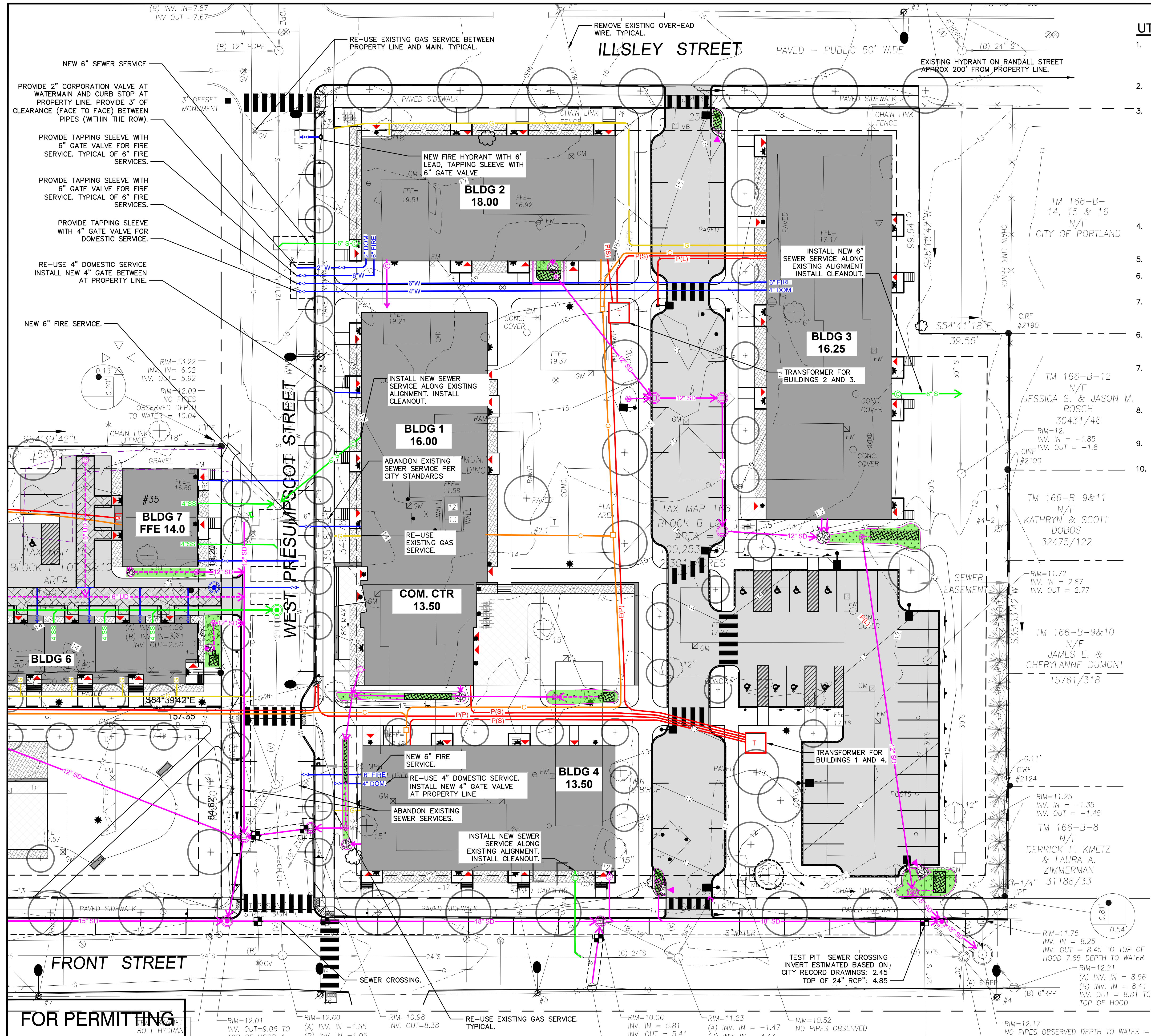
Drawn by:
KJT

Approved by:
SJB

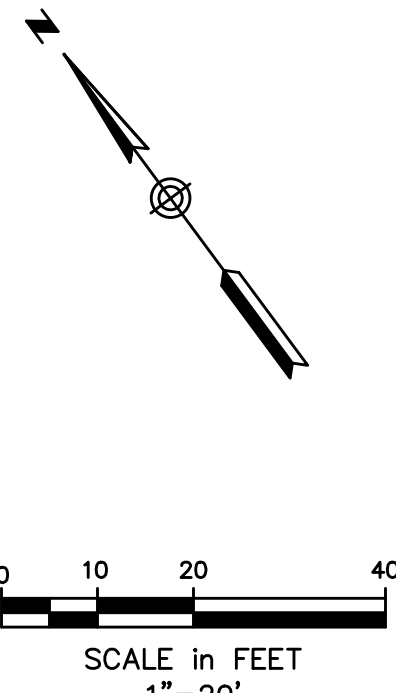
Project:
151.06170

Sheet No:
C-4.1

P:\2019\151.06170\Front Street Redevelopment\Civil\Drawings\Working Drawings\Front5-Ransom-Plans.dwg C-4.1 Jul 15, 2019-- 10:34am



- UTILITY NOTES**
- CONTRACTOR IS ADVISED THAT CERTAIN BUILDING MATERIALS TESTED POSITIVE FOR ASBESTOS AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS.
 - ALL EXISTING PAVEMENT AND BUILDING FOUNDATIONS TO BE REMOVED
 - ALL UTILITIES WITHIN PROPERTY BOUNDARIES ARE TO BE REMOVED WITH THE FOLLOWING EXCEPTIONS:
 - WATER UTILITIES (WITH 5' OF COVER OR MORE LOCATED OUTSIDE OF THE ROW) MAY BE ABANDONED IN PLACE IF NOT BENEATH A BUILDING. CAP WHERE ENCOUNTERED.
 - SEWER AND STORMDRAIN UTILITIES (WITH 4' OF COVER OF MORE) MAY BE ABANDONED IN PLACE IF NOT BENEATH A BUILDING. PIPES LESS THAN 12" IN DIAMETER MAY BE CAPPED/PLUGGED WHERE ENCOUNTERED. PIPES 12" OR GREATER IN DIAMETER SHALL BE REMOVED OR FILLED WITH FLOWABLE FILL.
 - EXISTING SEWER/STORMDRAIN SERVICES SHALL BE ABANDONED IN ACCORDANCE WITH CITY OF PORTLAND STANDARDS OR RE-USED AS INDICATED ON PLANS.
 - ALL NEW UTILITY SERVICES SHALL BE UNDERGROUND.
 - ALL WORK IN THE RIGHT OF WAY SHALL BE IN COMPLIANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS.
 - ALL BUILDINGS WILL HAVE 6" FOUNDATION DRAINS AT BOTTOM OF FOUNDATION ELEVATION, BEDDED IN CRUSHED STONE AND WRAPPED IN GEOTEXTILE
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES IN THE FIELD AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR CONFLICTS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER.
 - ALL UTILITY INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTLAND, AS WELL AS ANY OTHER LOCAL, STATE, FEDERAL AND UTILITY OWNER REQUIREMENTS.
 - SIZING OF DOMESTIC AND FIRE WATER SERVICES IS SHALL BE CONFIRMED BY MECHANICAL DESIGNER DURING FINAL DESIGN.
 - ALL WATER SERVICES TO BE REUSED SHALL BE 'DOUBLE GATED', WHICH MEANS THAT A NEW GATE VALVE SHALL BE INSTALLED AT THE PROPERTY LINE



- LEGEND:**
- 2" G GAS
 - P(P) PRIMARY ELECTRIC
 - P(S) SECONDARY ELECTRIC
 - P(L) LIGHTING CONDUIT
 - C COMMUNICATIONS
 - 18" SD STORM DRAIN
 - 6" S SANITARY SEWER
 - 2" W WATER
 - TRANSFORMER
 - COMMUNICATIONS JUNCTION
 - SS/SD STRUCTURE
 - FIELD INLET
 - RAIN GARDEN
 - CAP ON EXISTING SD/SS
 - CURB OPENING
 - ENERGY DISSIPATOR
 - TEST PIT

Front Street
Redevelopment

Front Street
Portland, ME

Applicant:

FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
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Consultants:

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Civil Engineer
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UTILITY PLAN
EAST PARCEL

D	RESPONSE TO COMMENTS	7-9-19
C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
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Design by:	Checked by:
JIM	SJB
Drawn by:	Approved by:
KJT	SJB
Project:	
151.06170	

Sheet No: **C-4.2**

STORMWATER BMP SUMMARY INFORMATION							
SUB-CATCHMENT	DRAINAGE AREA (SF)	IMPERVIOUS AREA (SF)	% IMPERVIOUS	RAIN GARDEN BOTTOM ELEVATION	RIM ELEVATION	FOCAL POINT AREA (SF)*	# R-TANK MODULES
1	4,123	3,741	91	13.30	13.80	20	7
2	19,882	14,090	71	11.15	11.75	70	24
3	1,627	1,444	89	11.75	12.25	65**	NA
4	3,833	3,470	91	12.00	12.50	20	7
5	15,846	14,041	89	12.00	12.50	80	27
6	6260	5,533	88	NA***	NA***	NA***	NA***
7	6,737	3,242	93	11.00	11.50	25	8
8	10,296	9,381	91	11.50	12.00	54	18
9	5,037	4,512	90	12.00	12.50	20	7
10	8,963	6,018	67	9.87	10.1	45	15
11	6,416	6,224	97	16.10	17.0	45	15
12	5,334	3,503	66	14.40	14.9****	35	12
13	23,553	15,150	64	11.10	11.60	70	24
14	20,271	10,537	52	10.50	11.00	45	15

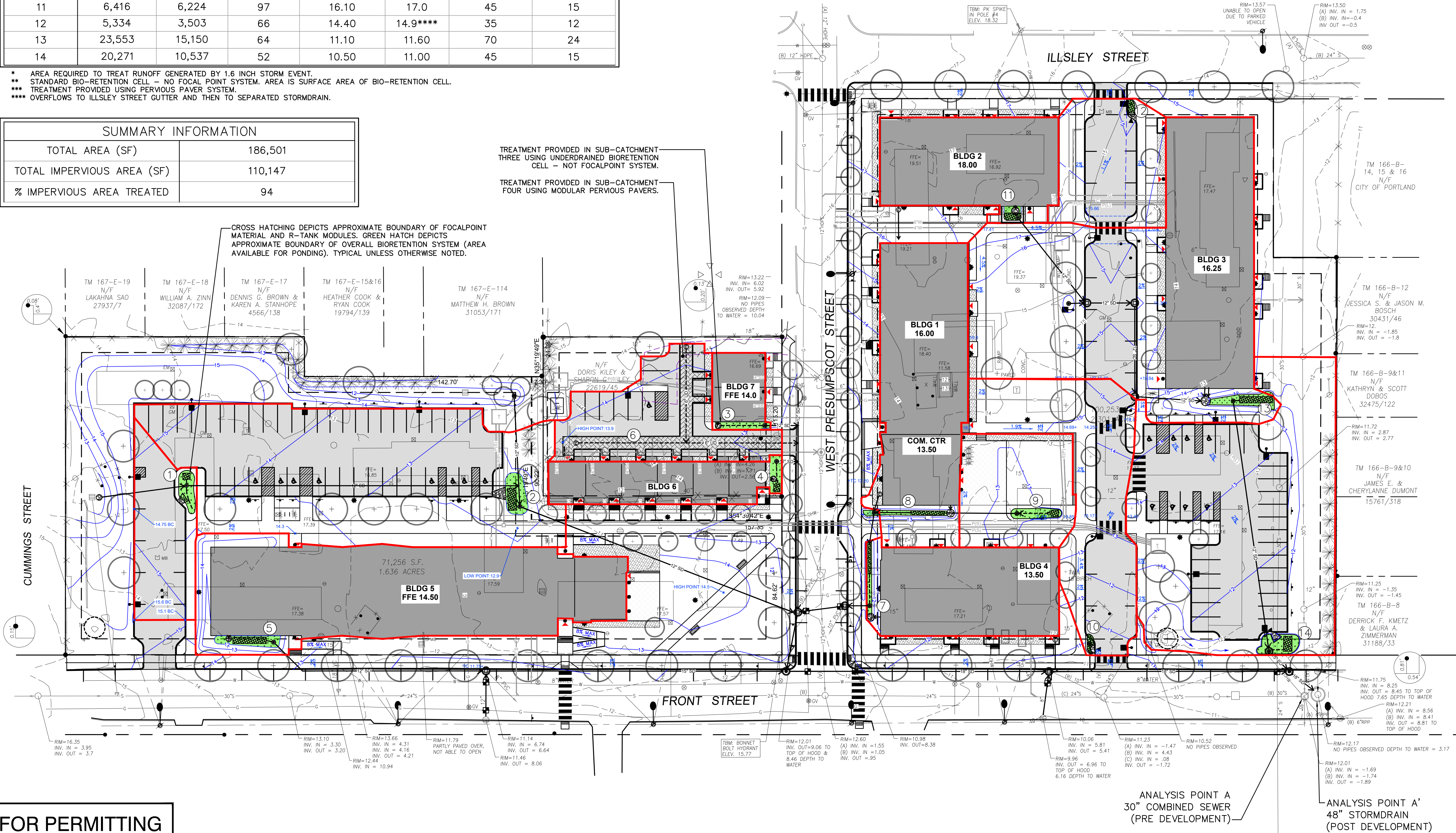
* AREA REQUIRED TO TREAT RUNOFF GENERATED BY 1.6 INCH STORM EVENT.
** STANDARD BIO-RETENTION CELL - NO FOCAL POINT SYSTEM. AREA IS SURFACE AREA OF BIO-RETENTION CELL.
*** TREATMENT PROVIDED USING PERVIOUS PAVEMENT SYSTEM.
**** OVERFLOWS TO ILLSLEY STREET GUTTER AND THEN TO SEPARATED STORMDRAIN.

SUMMARY INFORMATION	
TOTAL AREA (SF)	186,501
TOTAL IMPERVIOUS AREA (SF)	110,147
% IMPERVIOUS AREA TREATED	94

TREATMENT PROVIDED IN SUB-CATCHMENT THREE USING UNDERDRAINED BIOTENTION CELL - NOT FOCALPOINT SYSTEM.

TREATMENT PROVIDED IN SUB-CATCHMENT FOUR USING MODULAR PERVIOUS PAVERS.

CROSS HATCHING DEPICTS APPROXIMATE BOUNDARY OF FOCALPOINT MATERIAL AND R-TANK MODULES. GREEN HATCH DEPICTS APPROXIMATE BOUNDARY OF OVERALL BIOTENTION SYSTEM (AREA AVAILABLE FOR PONDING). TYPICAL UNLESS OTHERWISE NOTED.



ANALYSIS POINT A
30" COMBINED SEWER
(PRE DEVELOPMENT)

ANALYSIS POINT A'
48" STORMDRAIN
(POST DEVELOPMENT)

FOR PERMITTING

- LEGEND:
- 2" G GAS
 - PIP PRIMARY ELECTRIC
 - P(S) SECONDARY ELECTRIC
 - P(L) LIGHTING CONDUIT
 - C COMMUNICATIONS
 - 18" SD STORM DRAIN
 - 6" S SANITARY SEWER
 - 2" W WATER
 - TRANSFORMER
 - COMMUNICATIONS JUNCTION
 - SS/SD STRUCTURE
 - FIELD INLET
 - RAIN GARDEN
 - CAP ON EXISTING SD/SS
 - CURB OPENING
 - ENERGY DISSIPATOR

SCALE in FEET
1"=20'

Front Street Redevelopment

Front Street
Portland, ME

Applicant:



FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
PORTLAND, ME 04101

Consultants:

utile

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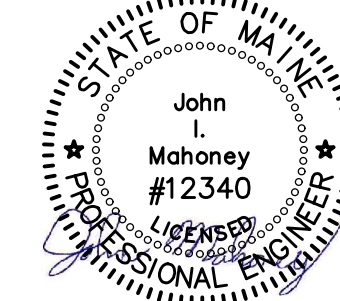
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207-772-2891

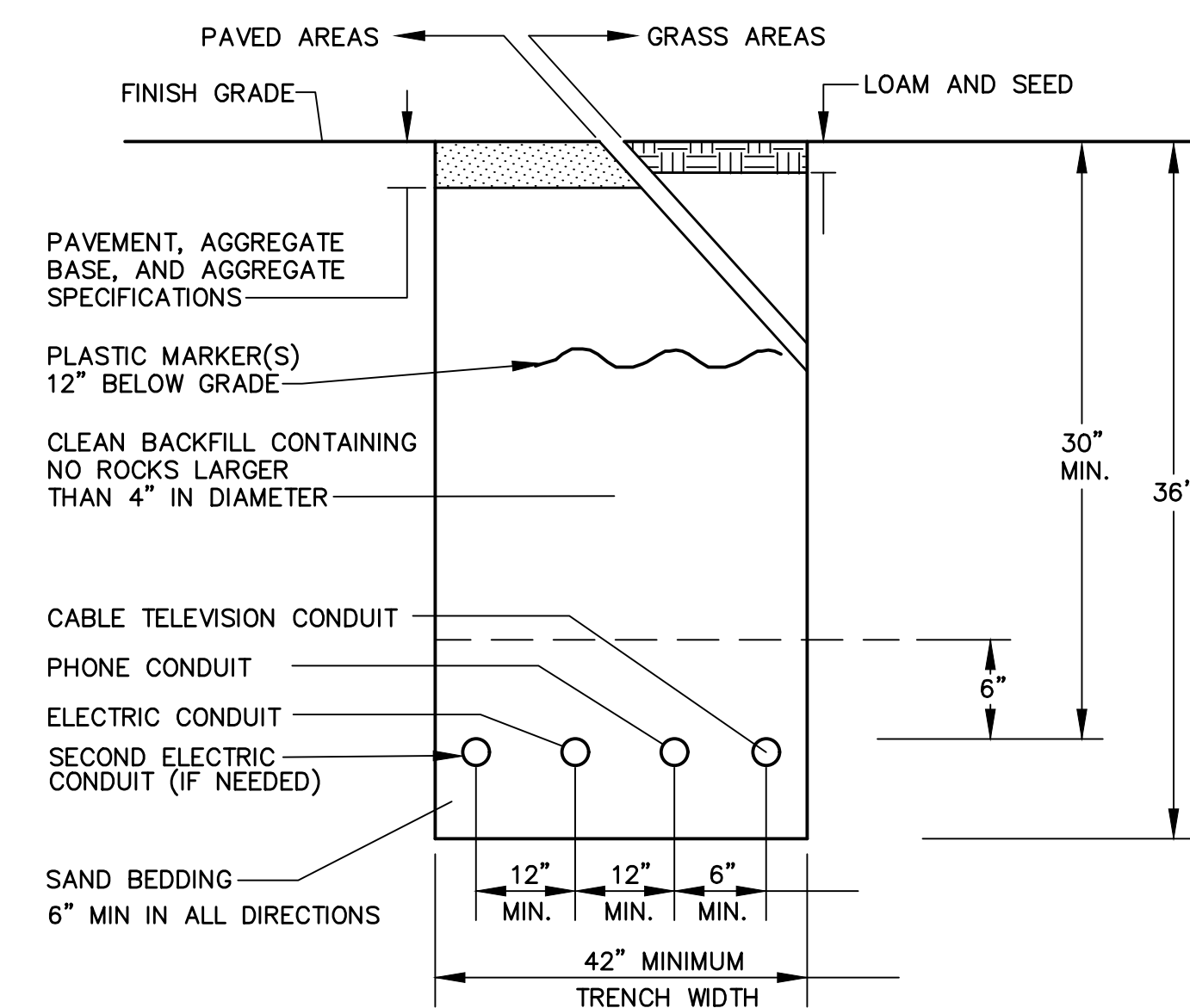
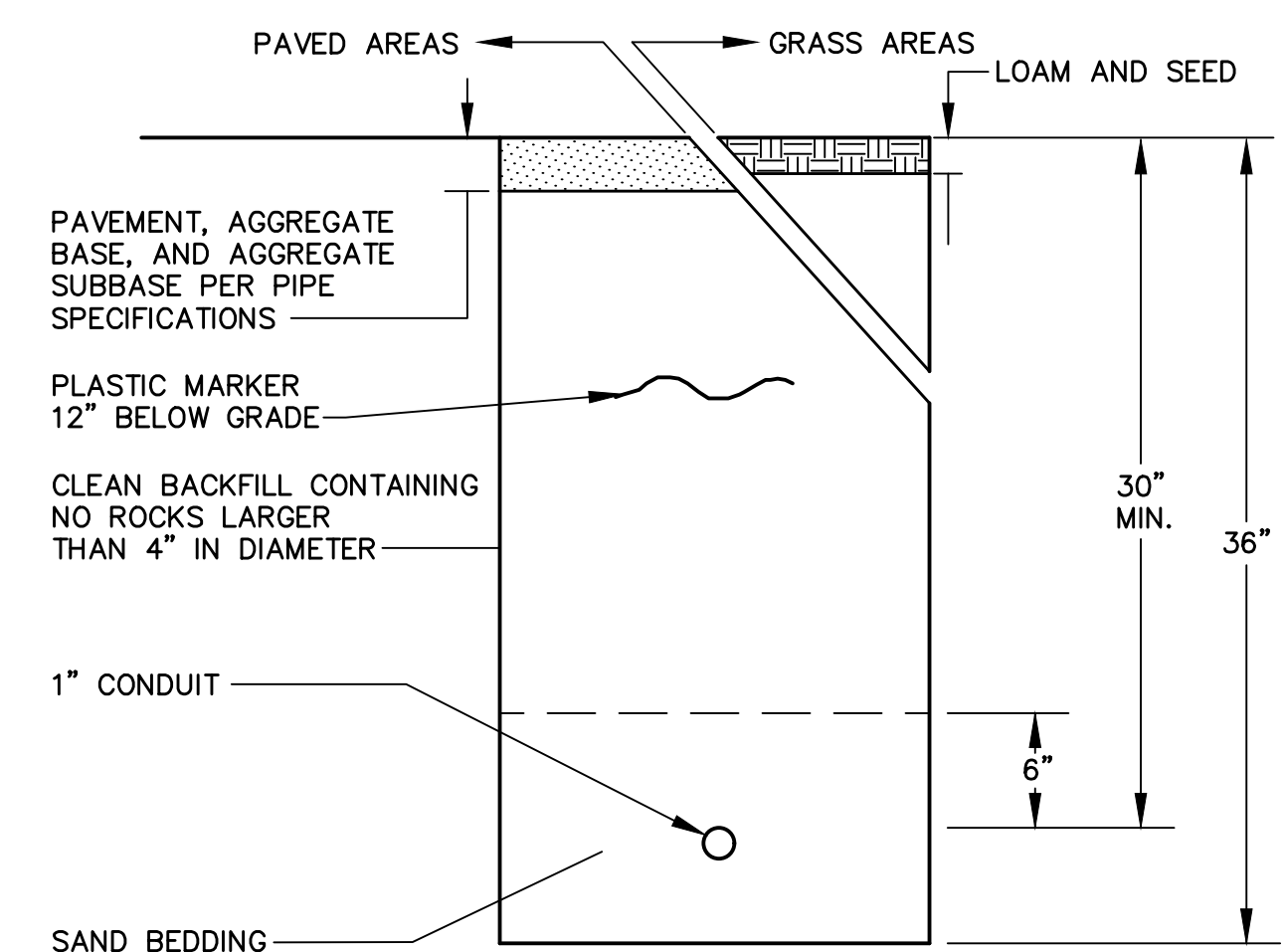
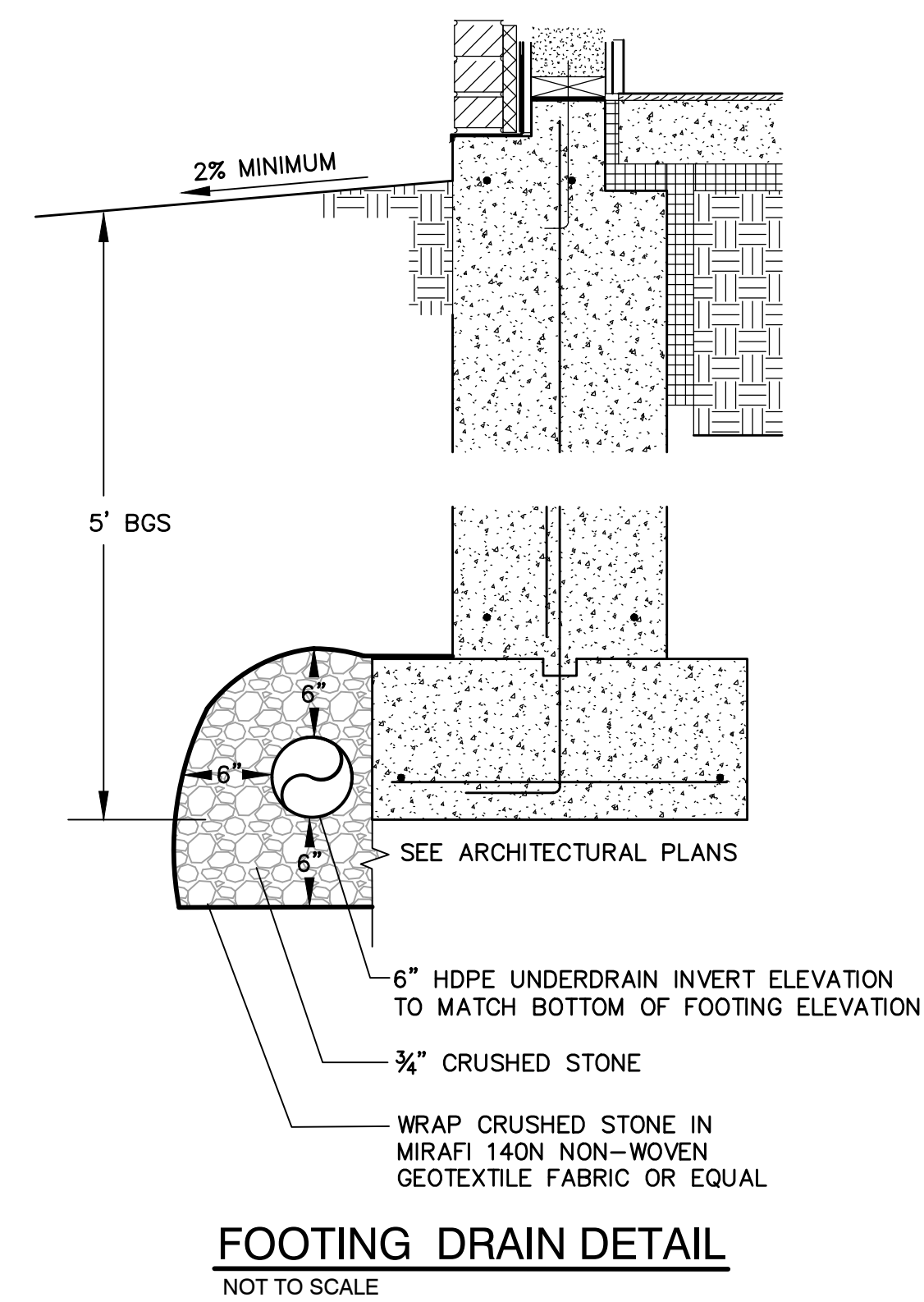
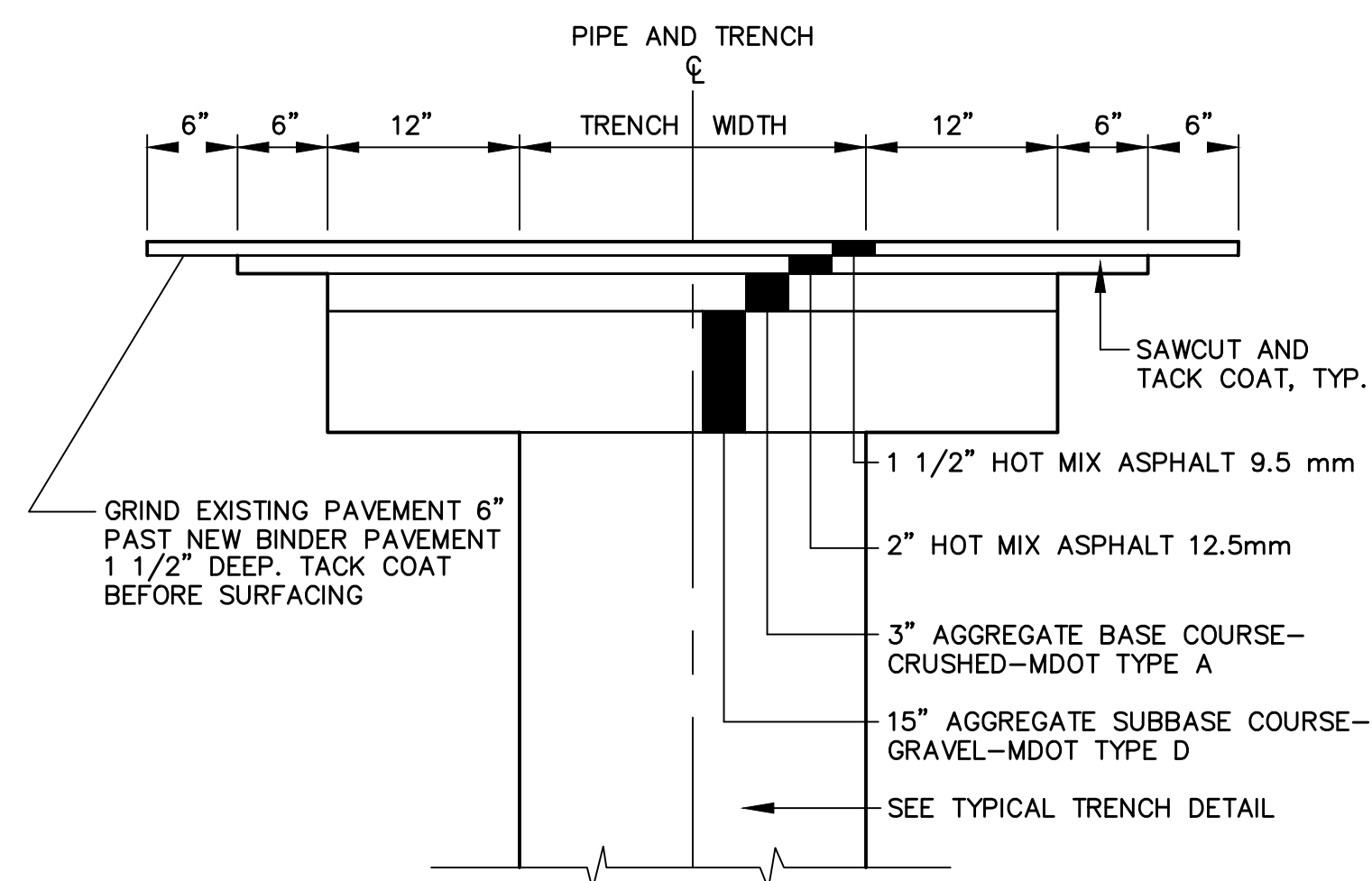
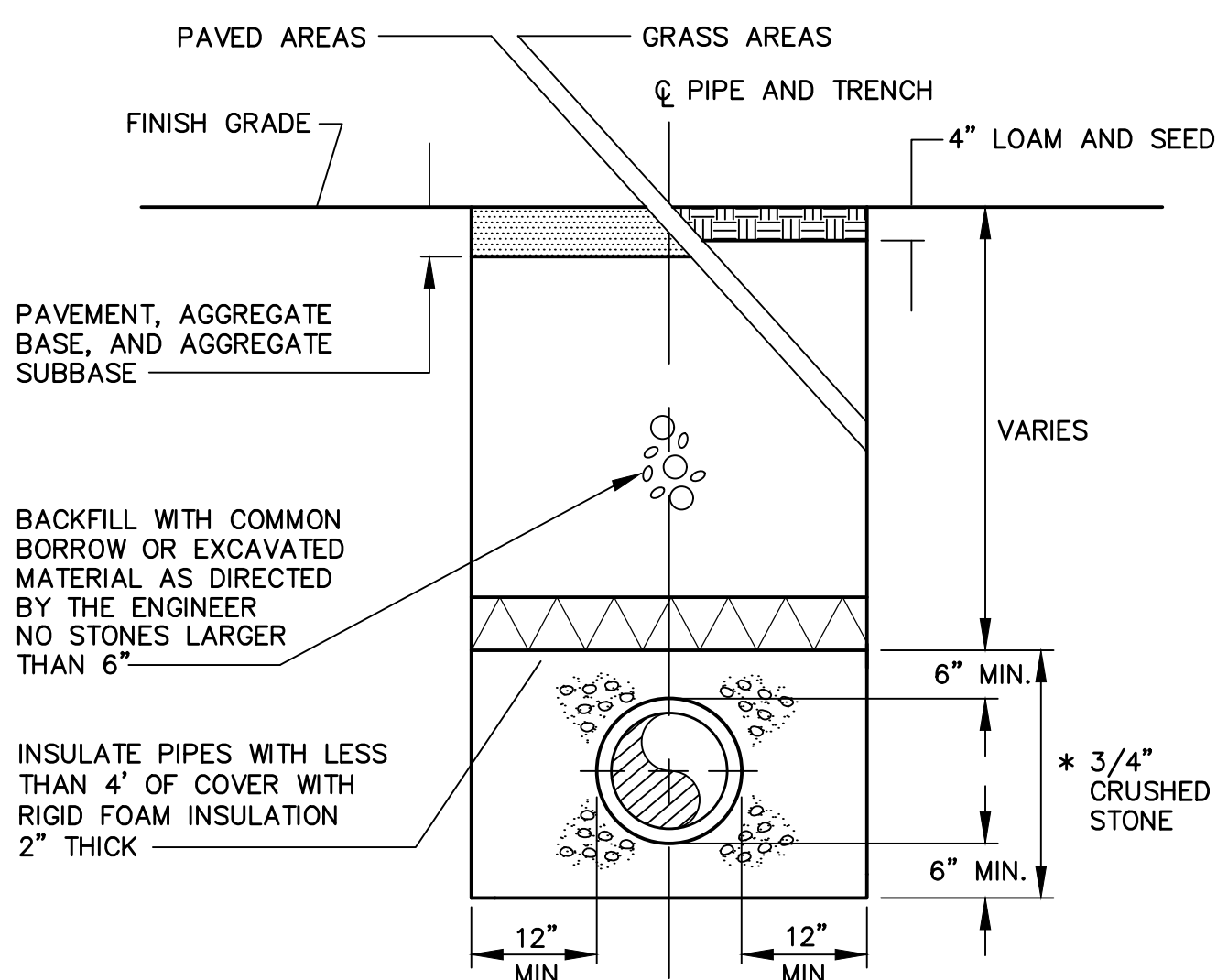
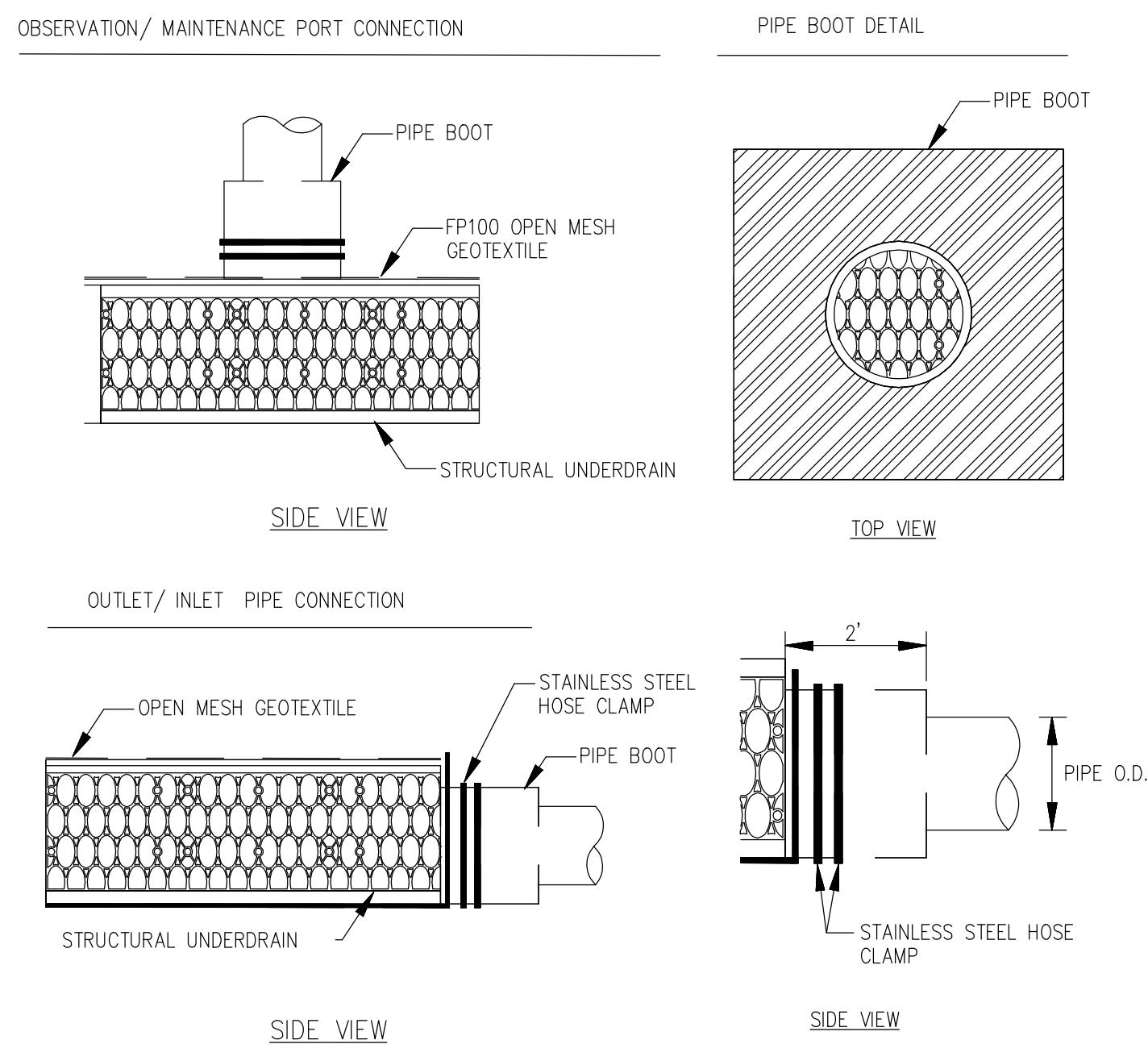
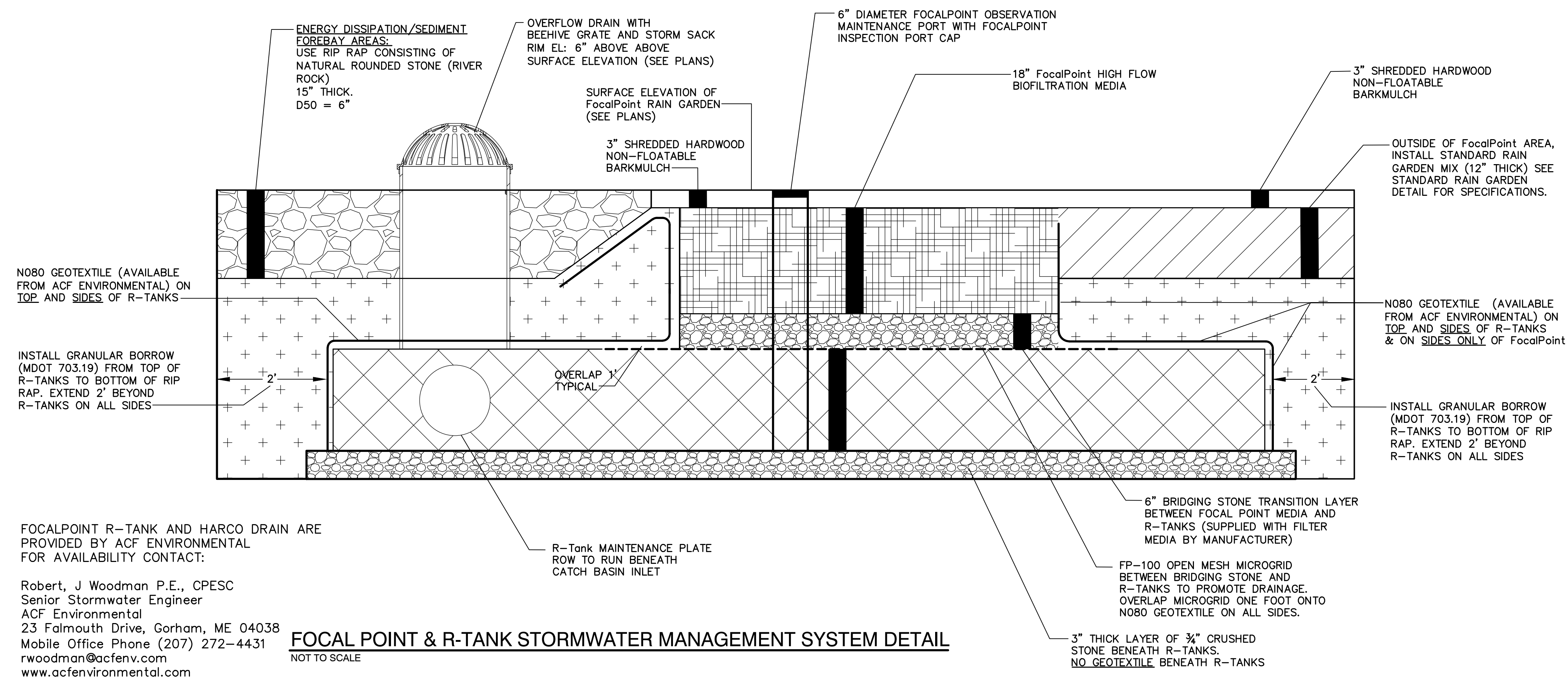


STORMWATER PLAN

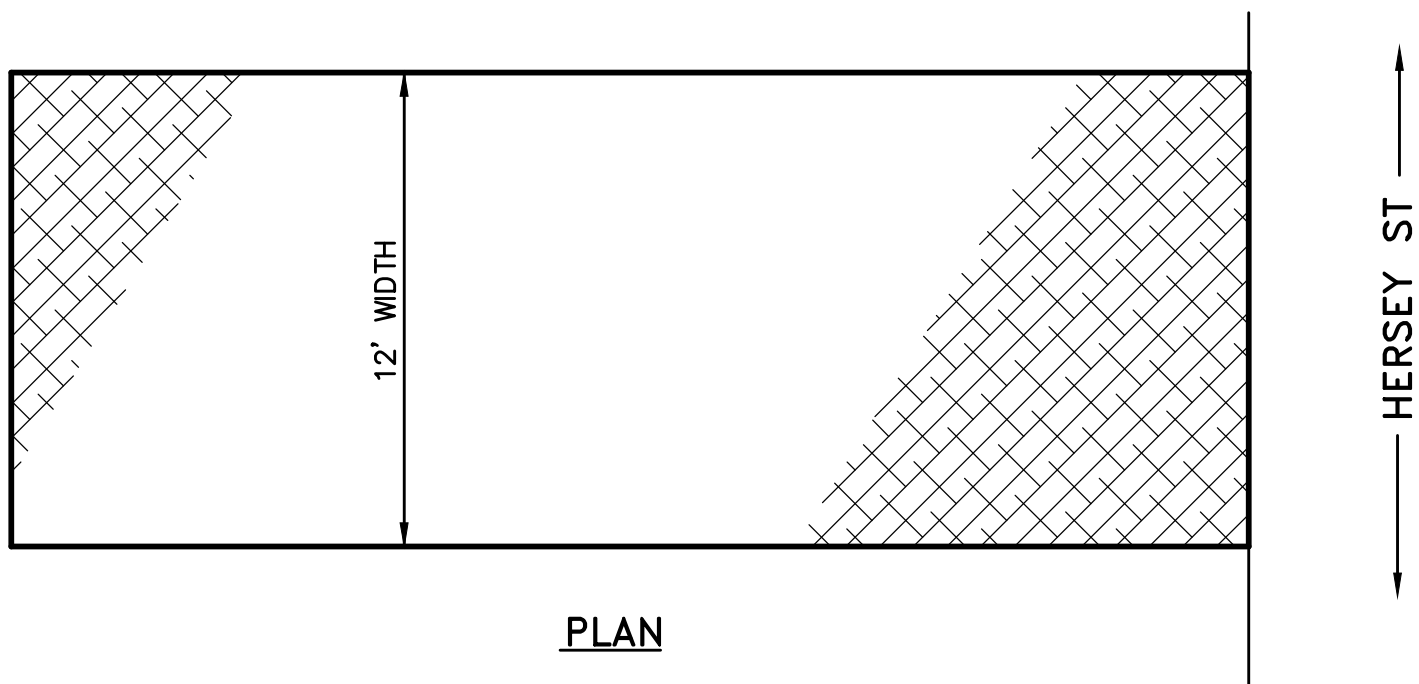
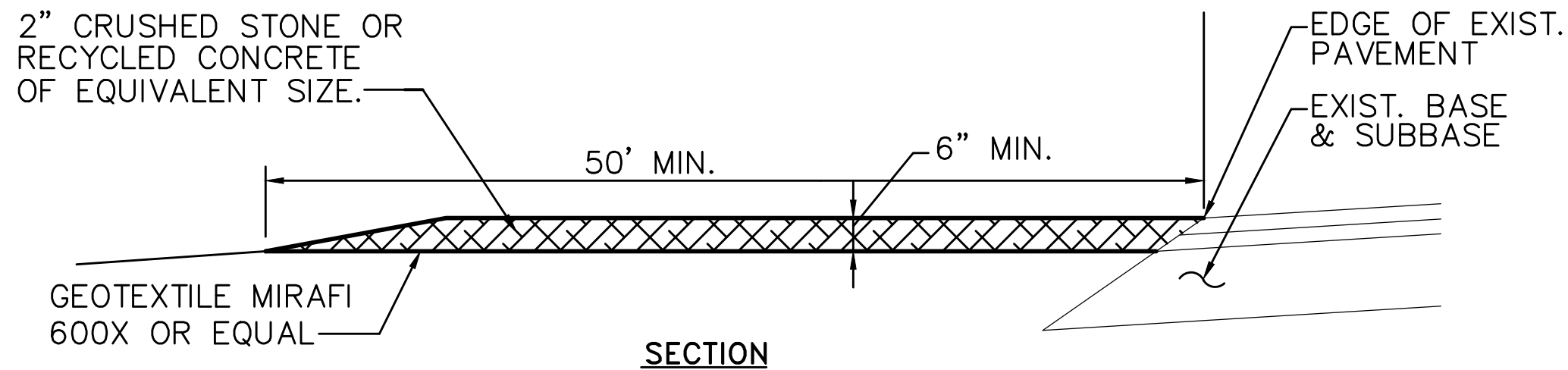
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C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
A	PERMITTING	10-10-17

No.	Revision/Issue	Date
Design by:	JIM	Checked by: SJB
Drawn by:	TGN	Approved by: SJB
Project:	151.06170	
Sheet No:		

C-5.0



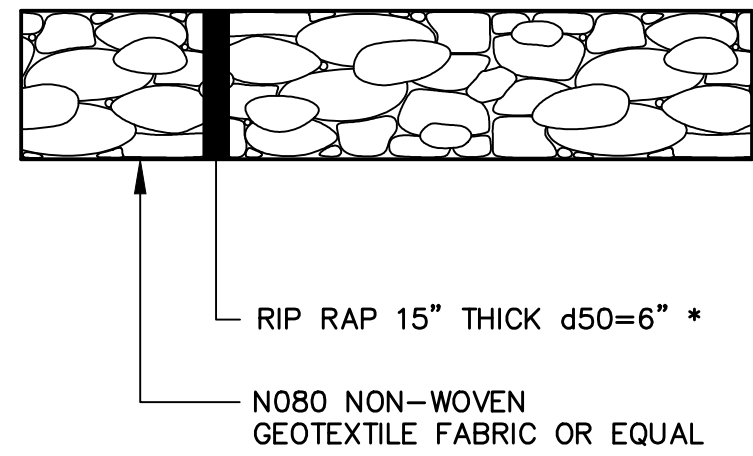
C-6.0



- NOTES:
1. MAINTAIN ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. IF WASHING IS REQUIRED PREVENT SEDIMENT FROM ENTERING WATERWAYS, DITCHES OR STORM DRAINS.
 2. REMOVE STABILIZED CONSTRUCTION ENTRANCE TO FINISH ROAD CONSTRUCTION & PAVEMENT.

STABILIZED CONSTRUCTION ENTRANCE

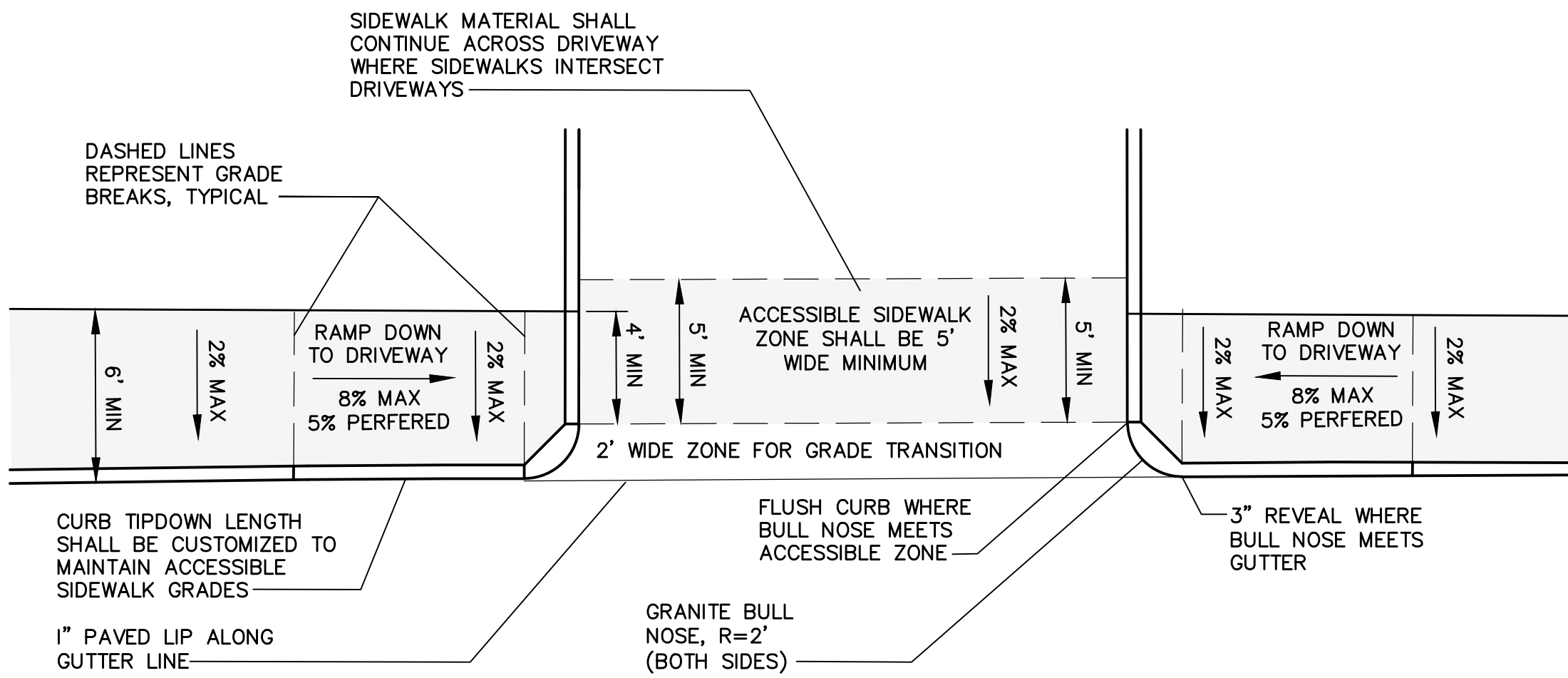
NOT TO SCALE



- * RIP RAP TO CONSIST OF ROUNDED NATURAL STONE (SCREENINGS)
- ** SEE PLANS FOR SHAPE, SIZE & GRADING OF ENERGY DISSIPATERS/PLUNGE POOLS

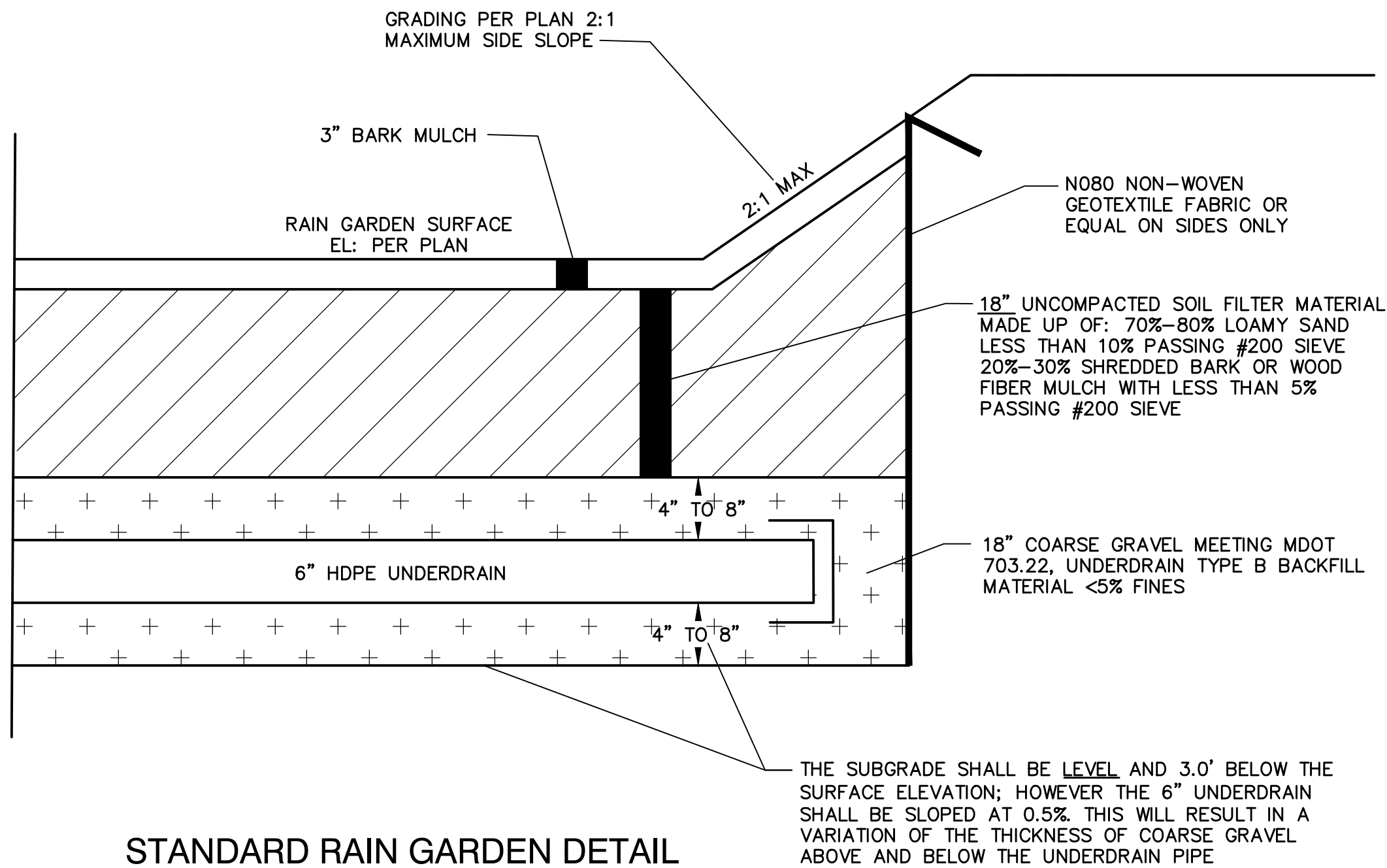
ENERGY DISSIPATER/PLUNGE POOL DETAIL

NOT TO SCALE



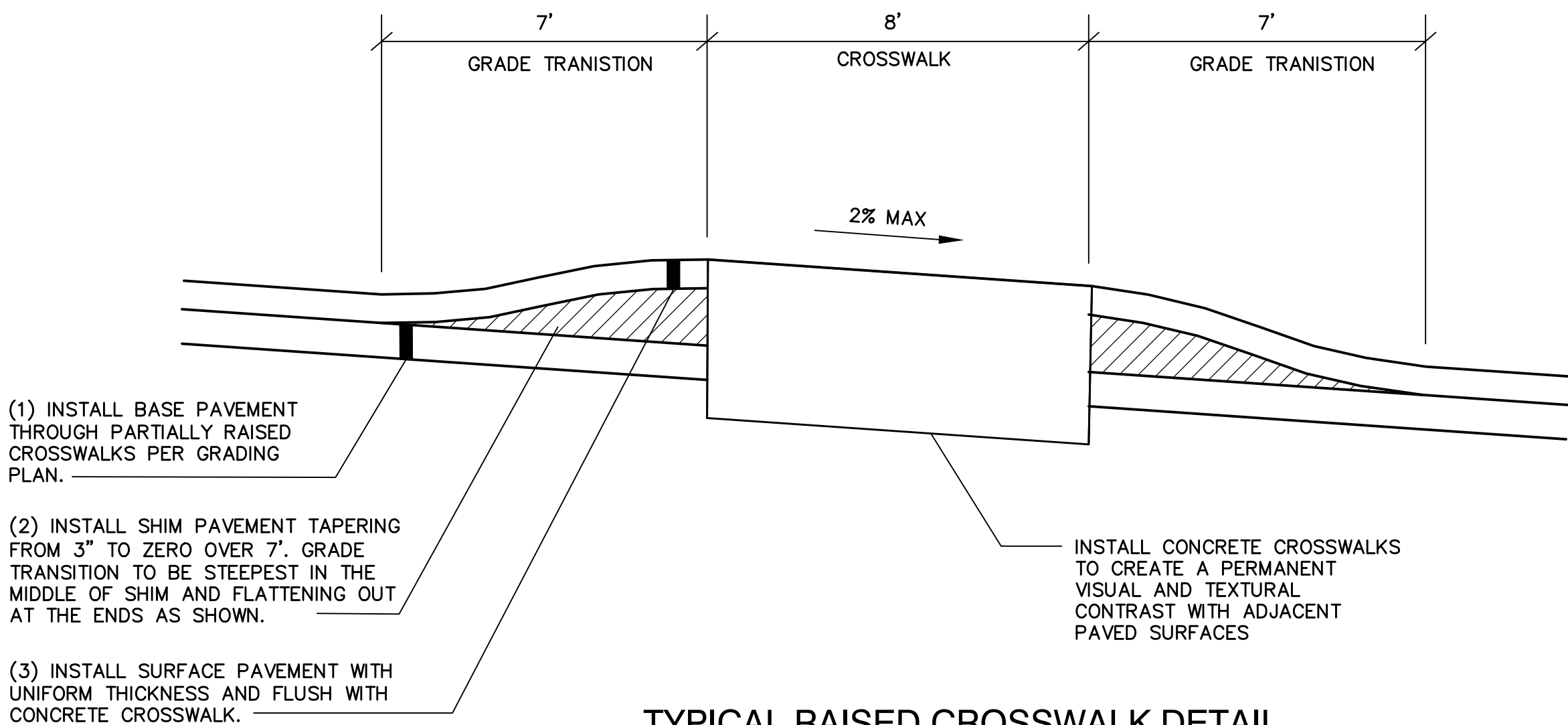
SIDEWALK DETAIL FOR DRIVEWAY CROSSINGS

NOT TO SCALE



STANDARD RAIN GARDEN DETAIL

NOT TO SCALE



- (1) INSTALL BASE PAVEMENT THROUGH PARTIALLY RAISED CROSSWALKS PER GRADING PLAN.
 - (2) INSTALL SHIM PAVEMENT TAPERING FROM 3" TO ZERO OVER 7'. GRADE TRANSITION TO BE STEEPEST IN THE MIDDLE OF SHIM AND FLATTENING OUT AT THE ENDS AS SHOWN.
 - (3) INSTALL SURFACE PAVEMENT WITH UNIFORM THICKNESS AND FLUSH WITH CONCRETE CROSSWALK.
- INSTALL CONCRETE CROSSWALKS TO CREATE A PERMANENT VISUAL AND TEXTURAL CONTRAST WITH ADJACENT PAVED SURFACES

TYPICAL RAISED CROSSWALK DETAIL

NOT TO SCALE

FOR PERMITTING

Front Street
Redevelopment

Front Street
Portland, ME

Applicant:



FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
PORTLAND, ME 04101

Consultants:



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CIVIL DETAILS

C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
A	PERMITTING	10-10-17
No.	Revision/Issue	Date
Design by:	JIM	Checked by: SJB
Drawn by:	TGN	Approved by: SJB
Project:	151.06170	
Sheet No:		

C-7.0

EROSION AND SEDIMENTATION CONTROL NOTES

Inspection Requirements

Contractor shall inspect all erosion and sedimentation control measures on a weekly basis and after rain/storm events and shall keep a log of these inspections. See project specifications (Section 311010 – Erosion and Sedimentation Control) for log from. Any issues identified shall be addressed as soon as possible and before additional precipitation.

Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion & sediment control plan is as follows:

- Rapid vegetation of exposed areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid channel erosion.
- The use of on-site measures to capture sediment (erosion control berm, staked hay bales 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 Maine Erosion and Sediment Control BMPs, (most recent revision).

Temporary Erosion Control Measures

The following measures are planned as temporary erosion & sedimentation control measures during construction. These temporary erosion control measures should be removed within 30 days after permanent stabilization has been established.

- Crushed stone-stabilized construction entrances shall be placed at site entrances.
- Wood waste compost berms (erosion control berm) shall be installed downstream of any disturbed areas to trap runoff borne sediments until the tributary areas are vegetated. The erosion control berms shall be installed per the details provided and inspected regularly, including before and after a storm event of 0.5 inches or greater. 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 fence or berm, the barrier shall be replaced with a stone check dam.
- Straw, hay mulch and hydroseeding is intended to provide cover for bare or seeded areas until vegetation is established and should be applied within 7 days at a rate a 115 pounds per 1000 square feet. Mulch placed between April 15th and October 15th (on slopes of less then 15 percent) shall be anchored by applying water. Mulch placed on slopes of equal to or steeper than 15 percent shall be covered by fabric netting and anchored with staples in accordance with manufacturer's recommendation. Slopes steeper than 3:1 shall receive erosion control blankets or rip rap.
- Use standard conservation seed mix of 100% annual rye grass or field bromegrass. Seed application rate shall be 40 lb/acre.
- Temporary stockpiles of stumps, grubblings, or common excavation will be protected as follows:

Stockpiles shall be stabilized within seven 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 shredded hay, straw, or erosion control mix.

Stockpiles shall be surrounded by sedimentation barrier at the time of formation.

- All disturbed areas that are within 75 Feet of an undisturbed wetland shall receive mulch or erosion control mesh fabric within 48 hours of initial disturbance of soil. All areas within 75 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.
- State and local roads shall be swept to control mud and dust as necessary. Additional stone shall be added to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- Stormdrain 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 half the design depth of the barrier. The barrier shall be removed when the tributary drainage area has been stabilized.
- Water and/or calcium chloride shall be furnished and applied in accordance with MDOT specifications--Section 637-Dust Control.
- Loam and seed is intended to serve as the primary permanent vegetative measure for all bare areas not provided with other erosion control measures, such as riprap.
- Water from construction trench dewatering or temporary stream diversion 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 75 feet of a protected natural resource.

Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion/Sedimentation Control Plan:

- All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, mulched, and seeded.
- Please refer to the Turf and Grasses specification (Section 329200) for seed mix and application rate

Implementation Schedule

The following construction sequence shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area. The construction of BMPs should either be performed after the tributary area is stabilized or temporary erosion control measures need to be implemented to protect the BMPs from being clogged with construction sediment.

- Install crushed stone to stabilized construction entrances.
- Install perimeter erosion control berm.
- Clear and grub site within the specified clearing limits.
- Commence earthwork and grading to subgrade.
- Commence construction of building foundation.
- Continue earthwork and grading to subgrade as necessary for construction.
- Complete remaining earthwork operations.
- Complete installation of drainage infrastructure.
- Install subbase and base gravel within proposed parking expansion.
- Loam, lime, fertilize, seed and mulch disturbed areas.
- Once the site is stabilized and a 90% catch of vegetation has been obtained, remove all temporary erosion control measures.
- Touch up loam and seed.

Note: All bare areas not subject to final paving, riprap, or gravel; shall be vegetated.

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 above construction sequence 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 erosion control berm and construction entrances in place before large areas of land are stripped.

The work shall be conducted in sections which shall:

- Limit the amount of exposed area to those areas in which work is expected to be undertaken during the preceding 30 days.
- Vegetate the disturbed areas as rapidly as possible. All areas shall be permanently stabilized within seven days of final grading or before a storm event; or temporarily stabilized within 48 hours of initial disturbance of soil for areas within 75 feet of an undisturbed wetland and 7 days for all other areas.
- Incorporate planned inlets and drainage system as early as possible into the construction phase.

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 15th, then the site shall be protected with over-winter stabilization.

Winter excavation and earthwork shall be completed such that any area left exposed can be controlled by the contractor. Exposed areas shall be limited to those areas in which work is expected to commence and complete in the next fifteen (15) days and that can be mulched within one day prior to any snow event.

All areas shall be considered to be bare until the subbase gravel is installed within pavement/building areas or the areas have been loamed, seeded and mulched. Hay and straw mulch rate shall be a minimum of 150 pounds per 1,000 square feet (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.

Soil Stockpiles

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or at 150 lbs/1,000 SF. (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.

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.

Mulching

An area shall be considered bare 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 SF. or 1.5 tons/acre) and shall be properly anchored. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 150 lb. per 1,000 square feet (3 tons/acre) and adequately anchored that ground surface is not visible though the mulch.

Between the dates of November 1st and April 15th all mulch shall be anchored by peg line, mulch netting, tracking, 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.

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.

Seeding

Between the dates of October 15th and April 1st, loam or seed will not be required. During periods of above freezing temperatures, finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until such time as the final treatment can be applied. If the date is after November 1st and if the exposed area has been loamed, final graded with a uniform surface, then the area may be dormant seeded at a rate of three times higher than specified for permanent seed and then mulched. Dormant seeding may be selected to be placed prior to the placement of mulch and fabric netting anchored with staples. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs/1000 SF. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 90% 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.

aljdf

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.

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 85% to 90% of areas vegetated with vigorous growth.

Standards for Timely Stabilization of Construction Sites During Winter

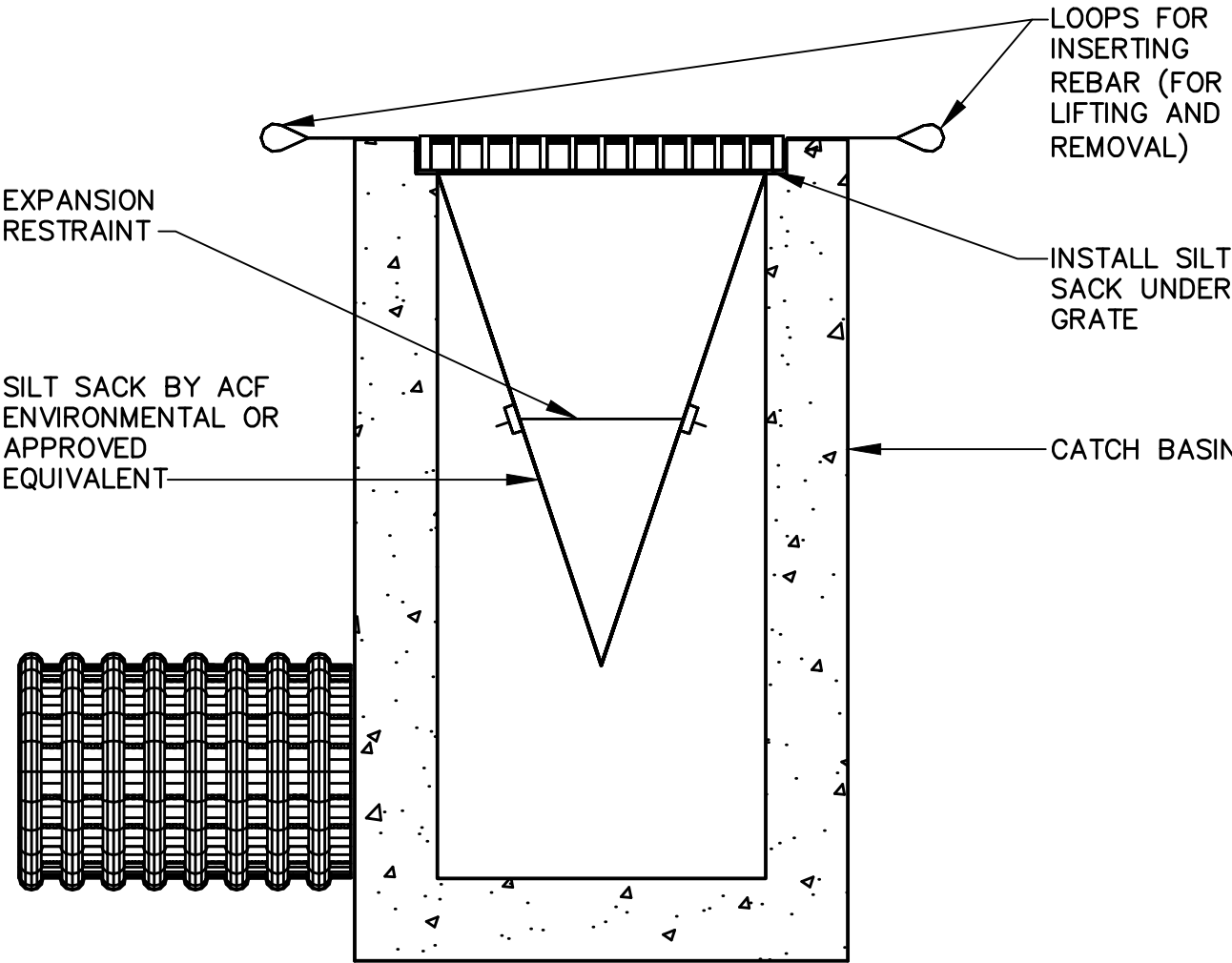
Standard for the timely stabilization of disturbed soils

By September 15th 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 October 1st the applicant shall seed the disturbed soil with winter rye at a seeding rate of three 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 15th, then the applicant shall mulch the area for over-winter protection as described above.

Stabilize the soil with sod--The applicant shall stabilize the disturbed soil with properly installed sod by October 1st. 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.

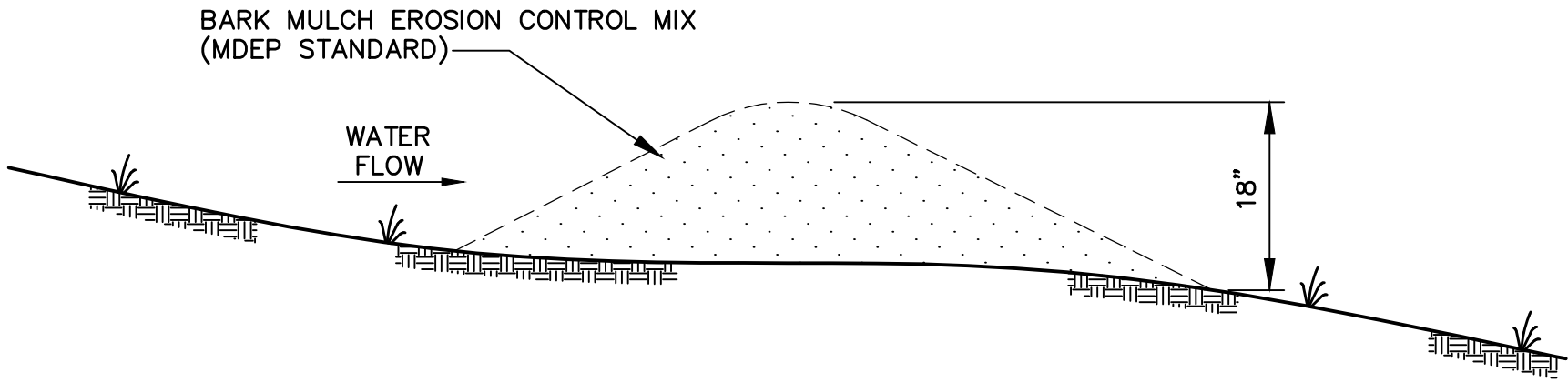
Stabilize the soil with mulch--By November 15th the applicant shall mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch. Prior to applying the mulch, the applicant shall remove any snow accumulation 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.



- NOTES:
- INSTALL SILTSACK PER MANUFACTURER'S RECOMMENDATIONS.
 - SILTSACKS SHALL BE CHECKED FOR SEDIMENT LEVEL AND OVERALL CONDITION IMMEDIATELY AFTER EVERY RAIN EVENT AND AT LEAST EVERY DAY DURING PROLONGED RAINFALL.
 - SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE SILTSACK. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT WILL NOT ERODE.
 - SEDIMENT SHALL ONLY BE REMOVED BY REMOVING THE SILTSACKS FROM THE CATCH BASINS ACCORDING TO MANUFACTURER RECOMMENDATIONS.
 - CARE SHALL BE TAKEN TO AVOID SPILLING SEDIMENT WHILE REMOVING THE SILTSACK.
 - ANY DAMAGED SILTSACK SHALL BE REPLACED WITH A NEW SILTSACK.

INLET PROTECTION - SILT SACK

NOT TO SCALE



MULCH BERM DETAIL

NOT TO SCALE

Front Street
Redevelopment

Front Street
Portland, ME

Applicant:



FRONT STREET HOUSING
REDEVELOPMENT, LP
14 BAXTER BLVD.
PORTLAND, ME 04101

Consultants:

utile

Utile, Inc. | Architecture + Planning
50 Summer Street | Boston, MA 02110

Architect:

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Landscape Architect

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217 Commercial Street
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207.772.1552

RANSOM

Consulting, Inc.

Civil Engineer

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400 Commercial Street, Suite 404
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EROSION AND
SEDIMENTATION
CONTROL NOTES

C	REVISED FOR PERMITTING	6-4-19
B	RESPONSE TO CITY COMMENT	11-18-17
A	PERMITTING	10-10-17
No.	Revision/Issue	Date
Design by:	Checked by:	
Drawn by:	Approved by:	
Project:		
151.06170		
Sheet No:		

C-8.0

FOR PERMITTING

NOTES:

1. CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF WATERING AND MAINTENANCE.
2. CONTRACTOR SHALL SUPPLY PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE WORK SHOWN ON THE PLAN. ANY DISCREPANCY BETWEEN THE QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED ON THE PLAN SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL REMUNERATION. ANY DISCREPANCIES SHALL BE CLARIFIED WITH THE LANDSCAPE ARCHITECT PRIOR TO ORDERING PLANT MATERIAL.
3. ALL MATERIALS SHALL CONFORM TO SPECIFICATIONS OF THE AMERICAN STANDARDS FOR NURSERY STOCK (LATEST EDITION) AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS THE ORIGINAL GRADES BEFORE DIGGING.
5. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
6. ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AT THE NURSERY AND AT THE SITE.
7. ALL PLANT BEDS SHALL MEET MINIMUM TOPSOIL REQUIREMENTS (SEE SPECIFICATIONS).
8. NO PLANT MATERIAL SHALL BE INSTALLED UNTIL GRUBBING, BED PREPARATION, AND FINISH GRADING HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
9. ALL PLANTS BEDS AND TREE WELLS SHALL HAVE A MINIMUM OF 3" OF UNIFORMLY DISTRIBUTED, DARK, SHREDDED BARK MULCH.
10. CONTRACTOR SHALL SUBMIT SOIL SAMPLE AND TEST OF TOPSOIL TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. SOIL ADMXTURE SHALL BE ADDED TO EXISTING SOIL (BY CONTRACTOR) IF DEEMED NECESSARY BY SOIL TEST RESULTS.
11. ROUGH GRADING AND BED PREPARATION SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANT INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO REQUIRED SITE VISIT.
12. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. ALL ROOT WRAPPING AND CONTAINER MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT THE TIME OF PLANTING.
13. ALL BROAD LEAF EVERGREEN PLANTS SHALL BE SPRAYED WITH AN ANTI-DESSICANT AT THE BEGINNING OF THEIR FIRST WINTER.
14. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
15. ALL PLANTS SHALL BE WATERED BY THE CONTRACTOR, AS NECESSARY TO INSURE HEALTH UNTIL FINAL ACCEPTANCE.
16. CONTRACTOR SHALL STAKE TREES IF DEEMED NECESSARY BY THE LANDSCAPE ARCHITECT.
17. THE LANDSCAPE CONTRACTOR SHALL PROVIDE PREPARED SOIL PLANTING MIX AS PER THE CONTRACT SPECIFICATIONS.
18. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE PLANT LIST AND PLANTING SPECIFICATIONS FOR SEASONAL REQUIREMENTS AND OTHER RESTRICTIONS RELATED TO THE TIME AND SEASON OF PLANTING.
19. PLANTING SOIL MIX: 1 PART COMPOST, 8 PARTS TOPSOIL, 3 PARTS HUMUS.
TOPSOIL: FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMXTURE OF SUBSOIL MATERIAL, FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS GREATER THAN 1" IN ANY DIMENSION, PH RANGE 5.0-7.0, AND SHALL CONTAIN NOT LESS THAN 6% ORGANIC MATTER BY WEIGHT.
SANDY LOAM OR LOAM SOIL AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE, AND HAVE THE FOLLOWING MECHANICAL ANALYSIS:

TEXTURAL CLASS	% OF TOTAL WEIGHT	AVERAGE %
SAND (0.05- 2.0 MM)	45 TO 75%	60%
SILT (0.002- 0.05 MM)	15 TO 35%	25%
CLAY (< 0.002 MM)	5 TO 25%	15%

LIGHTING SCHEDULE

QTY.	SYM.	LABEL	FIXTURE MODEL + MAKE	LAMP	HEIGHT	POLE	NOTES
10		RSW	RSW SERIES LED STREET LUMINARIES - MEDIUM	29 WATT LED	EXIST.	EXISTING POLE	PER CITY SPEC
5		BV3	VIPER S SERIES (BLACK) - BEACON LIGHTING	54 WATT LED	18'	SQUARE STRAIGHT STEEL	3K LED
2		BV4	VIPER S SERIES (BLACK) - BEACON LIGHTING	54 WATT LED	18'	SQUARE STRAIGHT STEEL	ADD BACKLIGHT CONTROL, 3K LED
9		BV5	VIPER S SERIES (BLACK) - BEACON LIGHTING	54 WATT LED	18'	SQUARE STRAIGHT STEEL	ADD BACKLIGHT CONTROL, 3K LED
1		P3	UNIVERSE COLLECTION (BLACK) - ARCH AREA LIGHTING	48 WATT LED	12'	ROUND STEEL	3K LED
6		P3H	UNIVERSE COLLECTION (BLACK) - ARCH AREA LIGHTING	48 WATT LED	12'	ROUND STEEL	ADD HOUSE SIDE SHIELD, 3K LED
6		P5	UNIVERSE COLLECTION (BLACK) - ARCH AREA LIGHTING	48 WATT LED	12'	ROUND STEEL	3K LED
22		R	ID+ 3.5" - FOCAL POINT (TRIM COLOR TBD BY ARCHITECT)	8 WATT LED	9'	NA	3K LED
41		WS	CYPHER CY1 - (BLACK) - ARCH AREA LIGHTING	15 WATT LED	7'*	NA	3K LED
6		SW1	CYPHER CY2 - (BLACK) - ARCH AREA LIGHTING	25 WATT LED	14'	NA	3K LED
			* TO TOP OF FIXTURE				

LEGEND:

EXISTING	PROPOSED

PLANT LIST - TREES

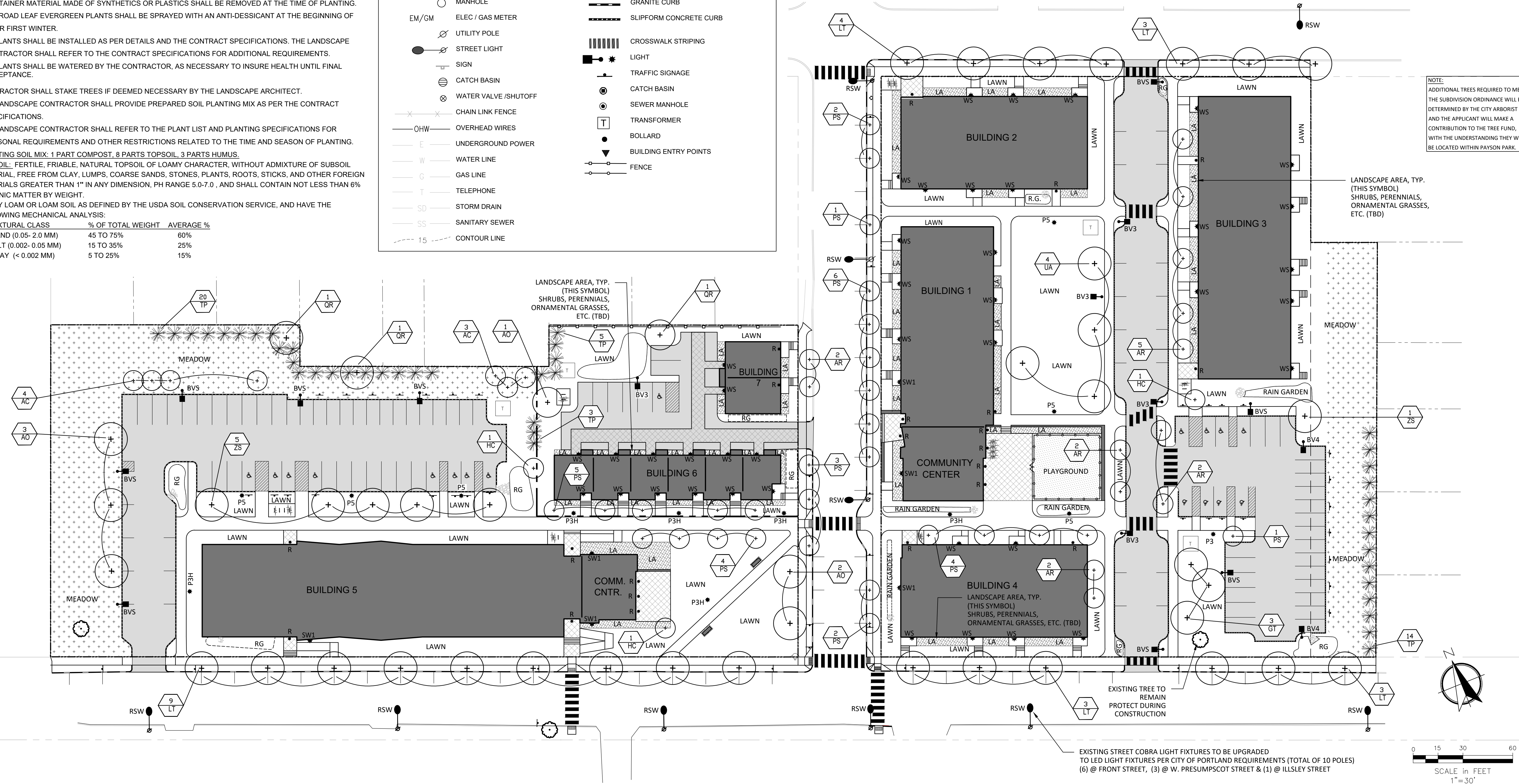
QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
14	AR	<i>Acer rubrum 'Armstrong'</i>	Red Maple	2-2.5" CAL.	B&B	Y
6	AO	<i>Acer rubrum 'October Glory'</i>	Red Maple	2-2.5" CAL.	B&B	Y
7	AC	<i>Amelanchier canadensis</i>	Serviceberry	8-10' HT.	B&B, Multistem	Y
3	GT	<i>Gleditsia triacanthos 'Shademaster'</i>	Honeylocust	2-2.5" CAL.	B&B	N
3	HC	<i>Halesia carolina 'Jersey Belle'</i>	Silverbell	2-2.5" CAL.	B&B	N
22	LT	<i>Liriodendron tulipifera</i>	Tulip Tree	2-2.5" CAL.	B&B	Y
28	PS	<i>Prunus sargentii 'Pink Flair'</i>	Sargent Cherry	2-2.5" CAL.	B&B	N
42	TP	<i>Thuja plicata 'Green Giant'</i>	Green Giant Arborvitae	5-6' HT.	B&B	N
3	QR	<i>Quercus rubra</i>	Red Oak	2-2.5" CAL.	B&B	Y
4	UA	<i>Ulmus americana 'Princeton'</i>	American Elm	2-2.5" CAL.	B&B	Y
6	ZS	<i>Zelkova serrata 'Green Vase'</i>	Zelkova	2-2.5" CAL.	B&B	N

PLANT LIST - RAIN GARDEN

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
2,223 S.F. RAIN GARDEN		<i>Ilex verticillata</i>	Winterberry	#5	CONT.	Y
		<i>Deschampsia cespitosa</i>	Tufted Hair Grass	#2	CONT.	Y
		<i>Calamagrostis acutiflora</i>	Reed Grass	#2	CONT.	N
		<i>Iris versicolor</i>	Blue Flag Iris	#2	CONT.	Y
		<i>Panicum virgatum</i>	Switchgrass	#2	CONT.	Y
		<i>Andropogon gerardii</i>	Big Bluestem	#2	CONT.	Y
		<i>Eupatorium fistulosum</i>	Joe Pye Weed	#2	CONT.	Y
		<i>Comus sericea 'farrow'</i>	Redtwig Dogwood	#5	CONT.	Y
		<i>Clethra alnifolia 'Hummingbird'</i>	Sweet Pepperbush	#5	CONT.	Y

PLANT LIST - SEED MIX

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
4,140 SF		Mixed shrubs, perennials & grasses - TBD			CONT.	Y
23,000 SF		MEADOW (New England Conservation and Wildlife Seed Mix)		By New England Wetland Plants Amherst, MA (or approved equal)	seed mix 25lbs / acres	Y



APPLICANT:

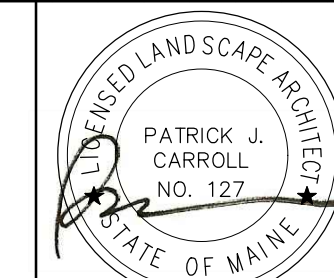
FRONT STREET
REDEVELOPMENT, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

OWNER:

PORTLAND HOUSING
AUTHORITY
14 BAXTER BLVD
PORTLAND, MAINE 04101

FRONT STREET
DEVELOPMENT

Revisions	Date	Description
3	07.16.2018	REVISIONS - LEVEL III
2	07.09.2018	REVISIONS - LEVEL III
1	06.22.2018	LEVEL III SITE PLAN



LANDSCAPE AND
LIGHTING PLAN

PERMITTING



Date:
MARCH 14, 2018

Sheet No:

L-1.0

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
East Property Line	0.05	0.1	0.0	N.A.	N.A.
site	0.37	5.0	0.0	N.A.	N.A.
PARK BLD 3	1.29	3.1	0.4	3.23	7.75
PARK BLD 5	1.25	3.2	0.4	3.13	8.00

FRONT STREET
REDEVELOPMENT, LP
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FRONT STREET
DEVELOPMENT

Revisions	Date	Description
3	07.16.2019	REVISIONS - LEVEL III
2	07.09.2019	REVISIONS - LEVEL III
1	05.22.2019	LEVEL III SITE PLAN

Drawn By: MR	Approved by: P-C	Scale:
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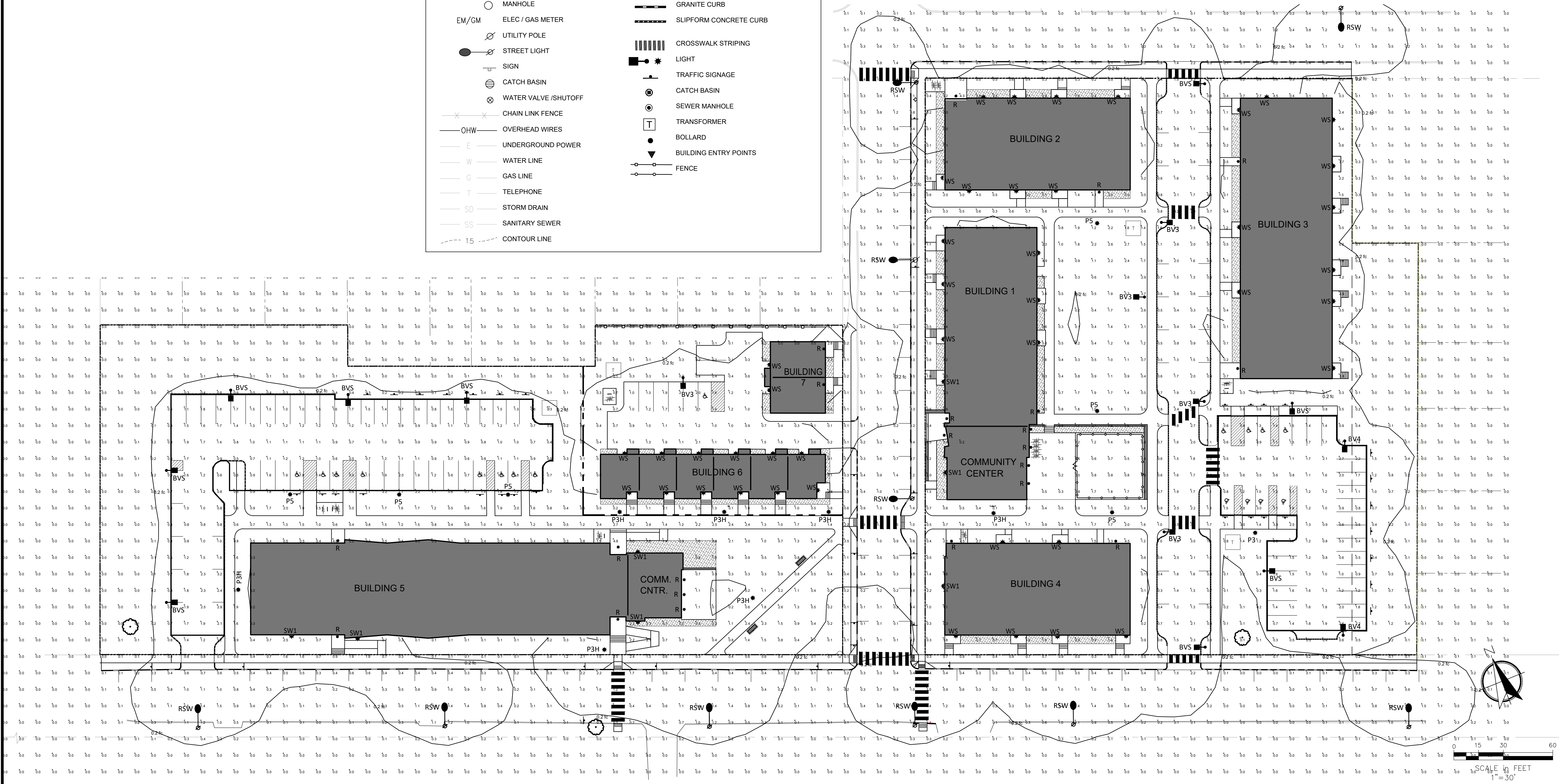
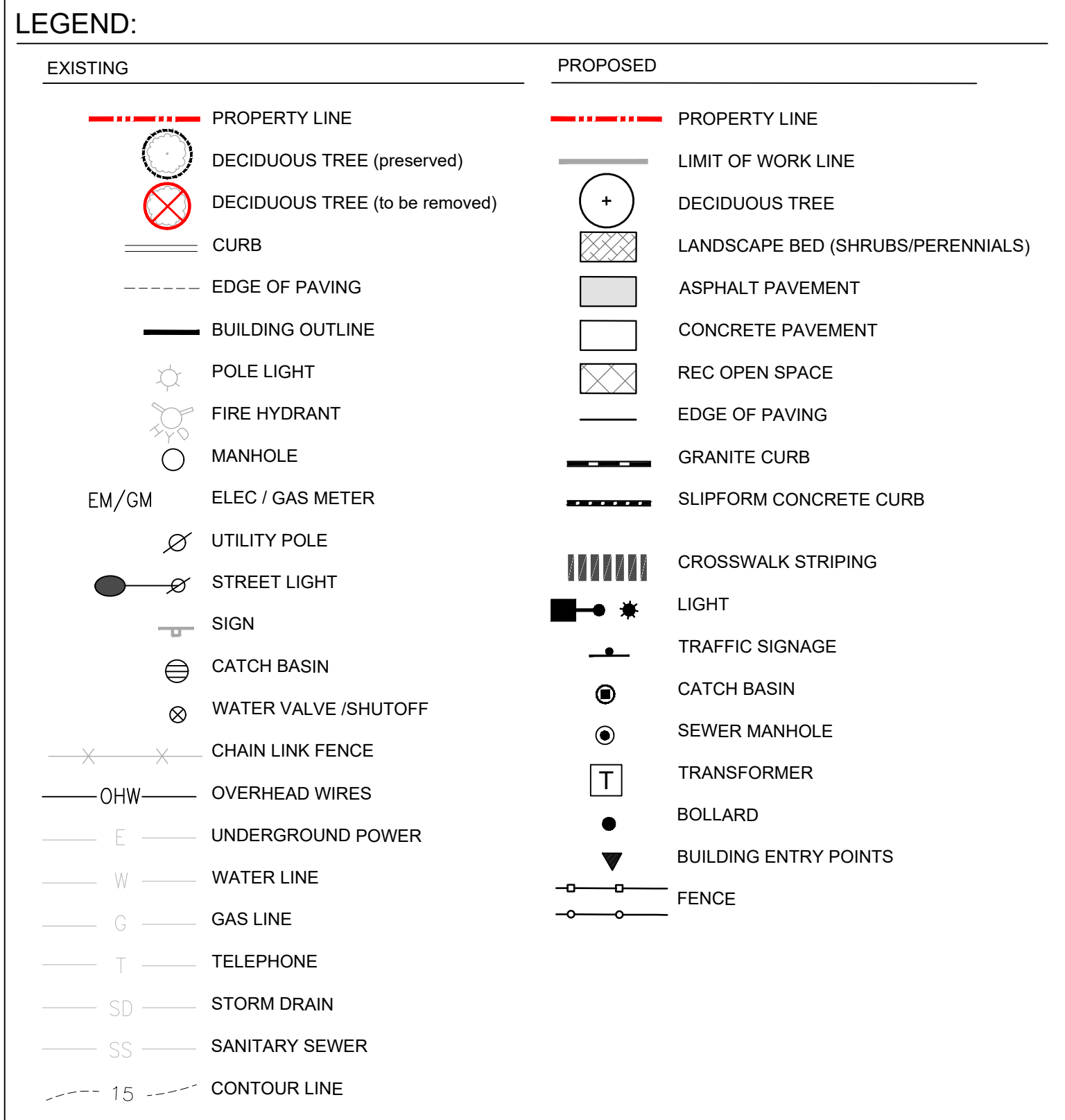
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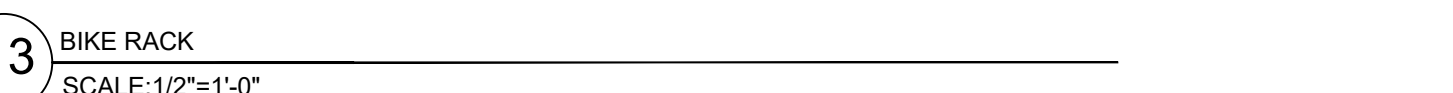
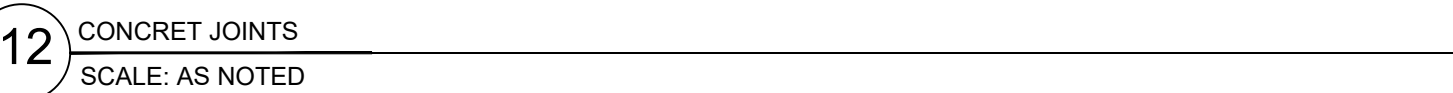
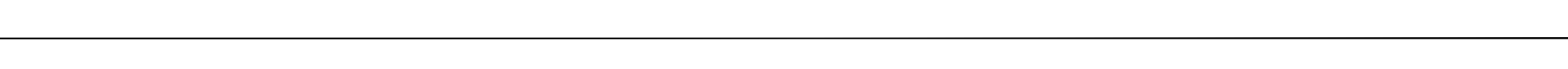
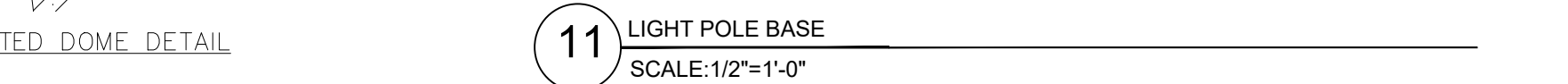
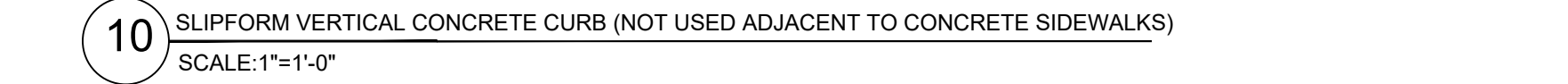
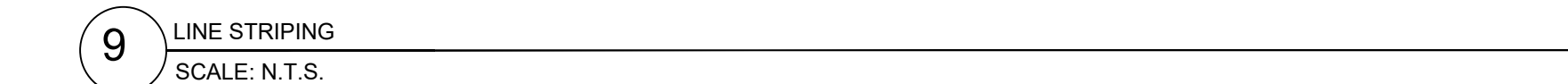
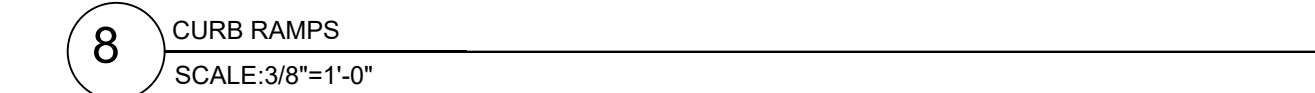
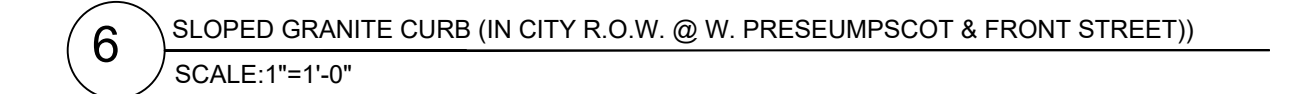
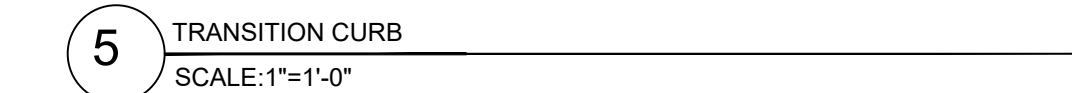
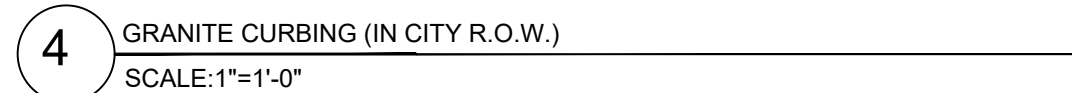
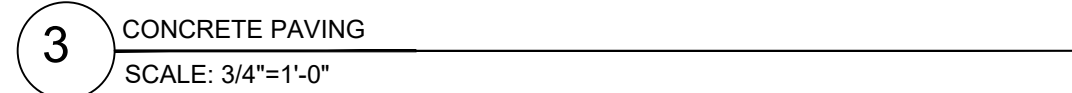
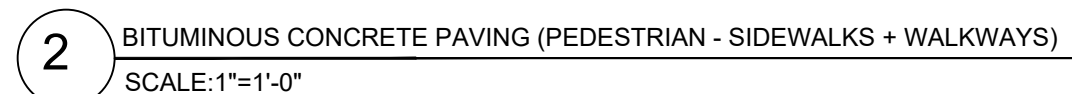
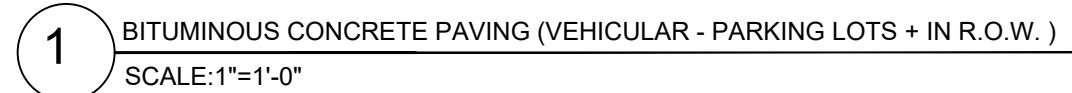


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Sheet No:

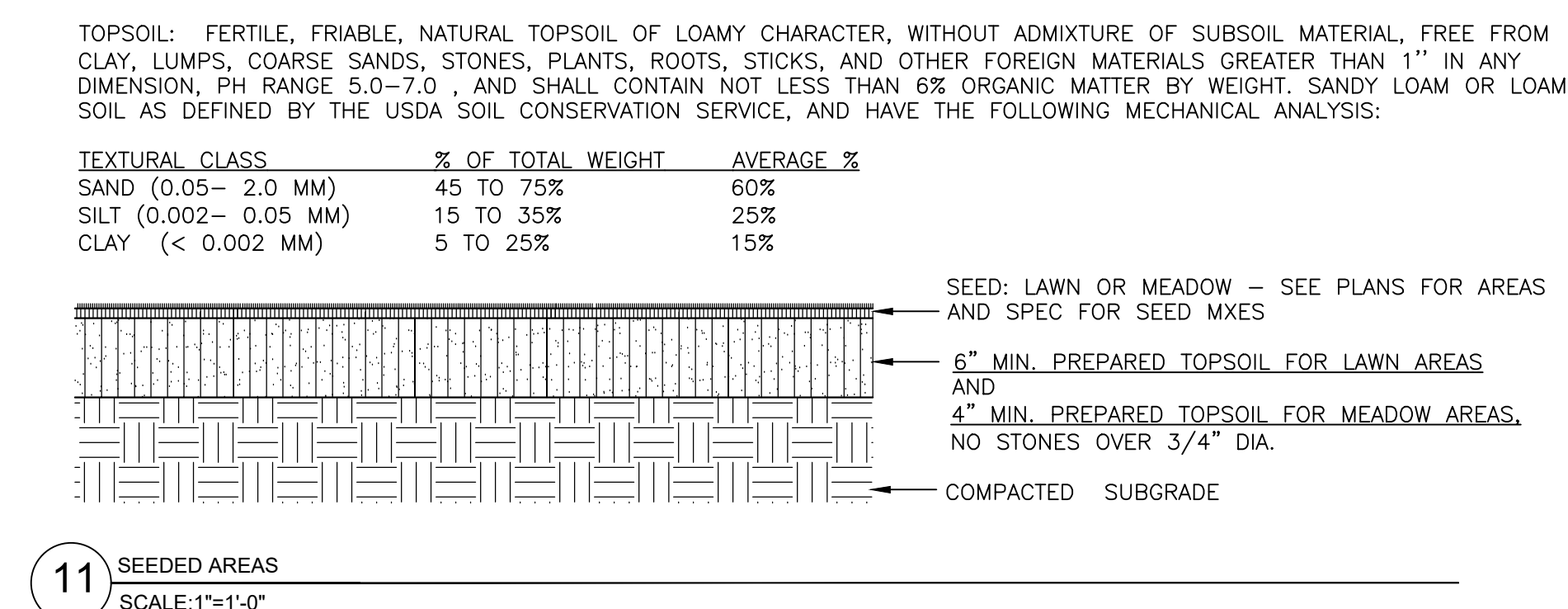
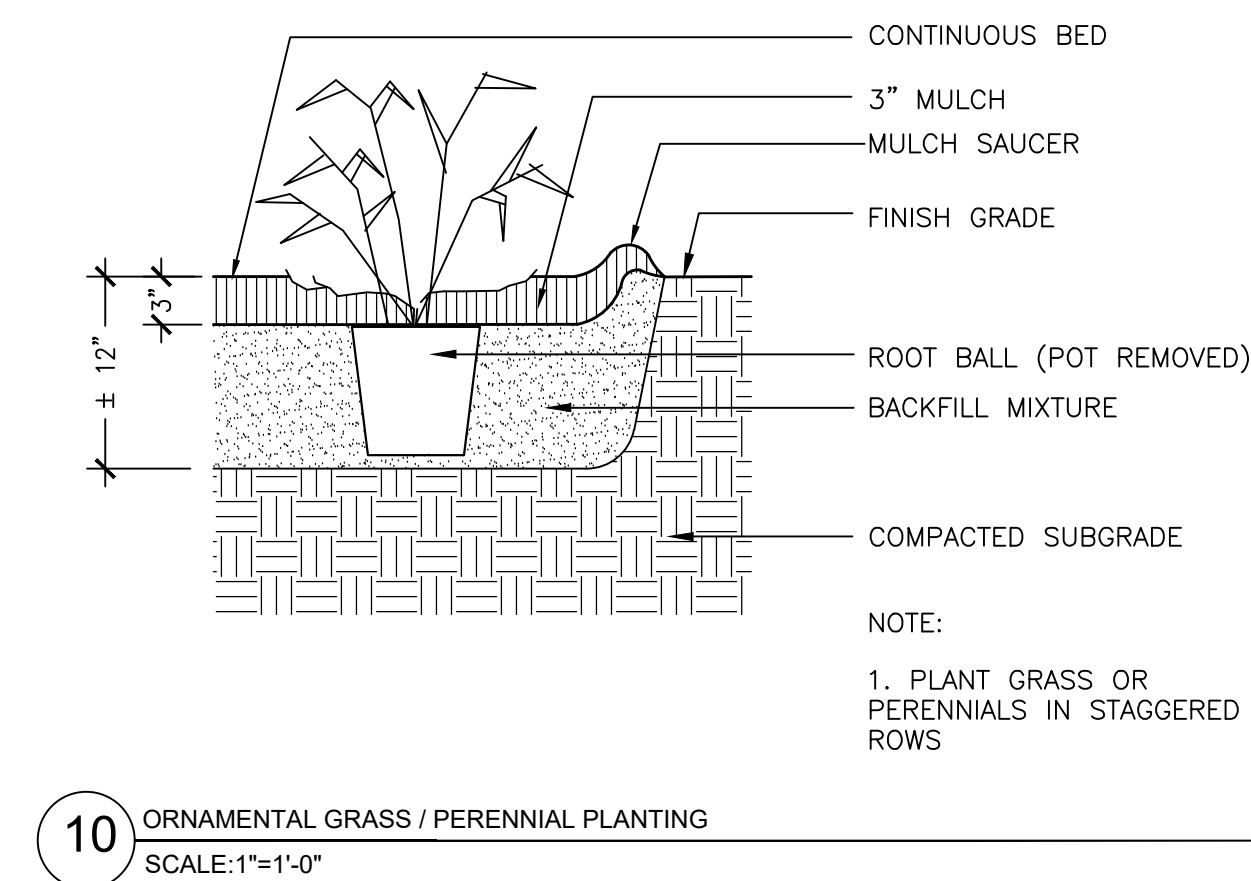
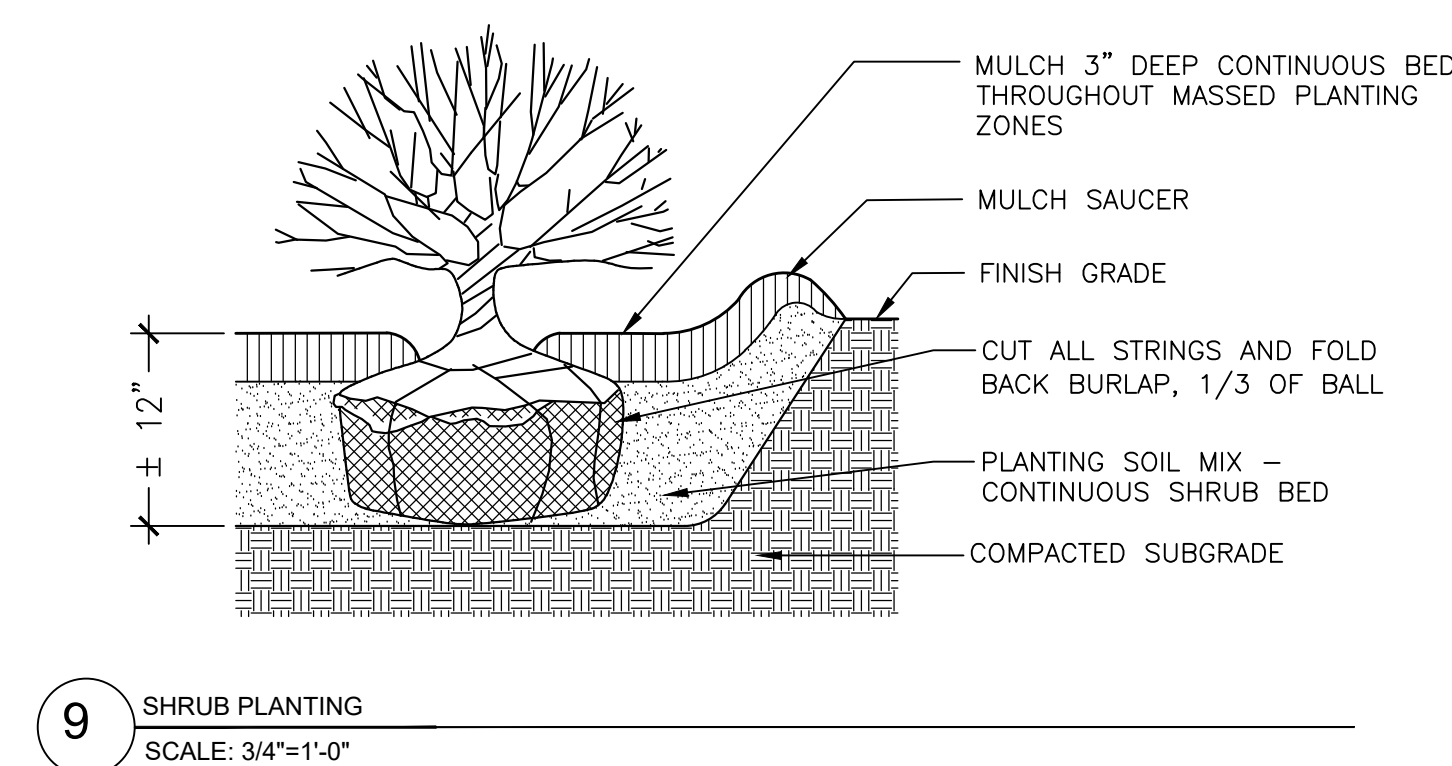
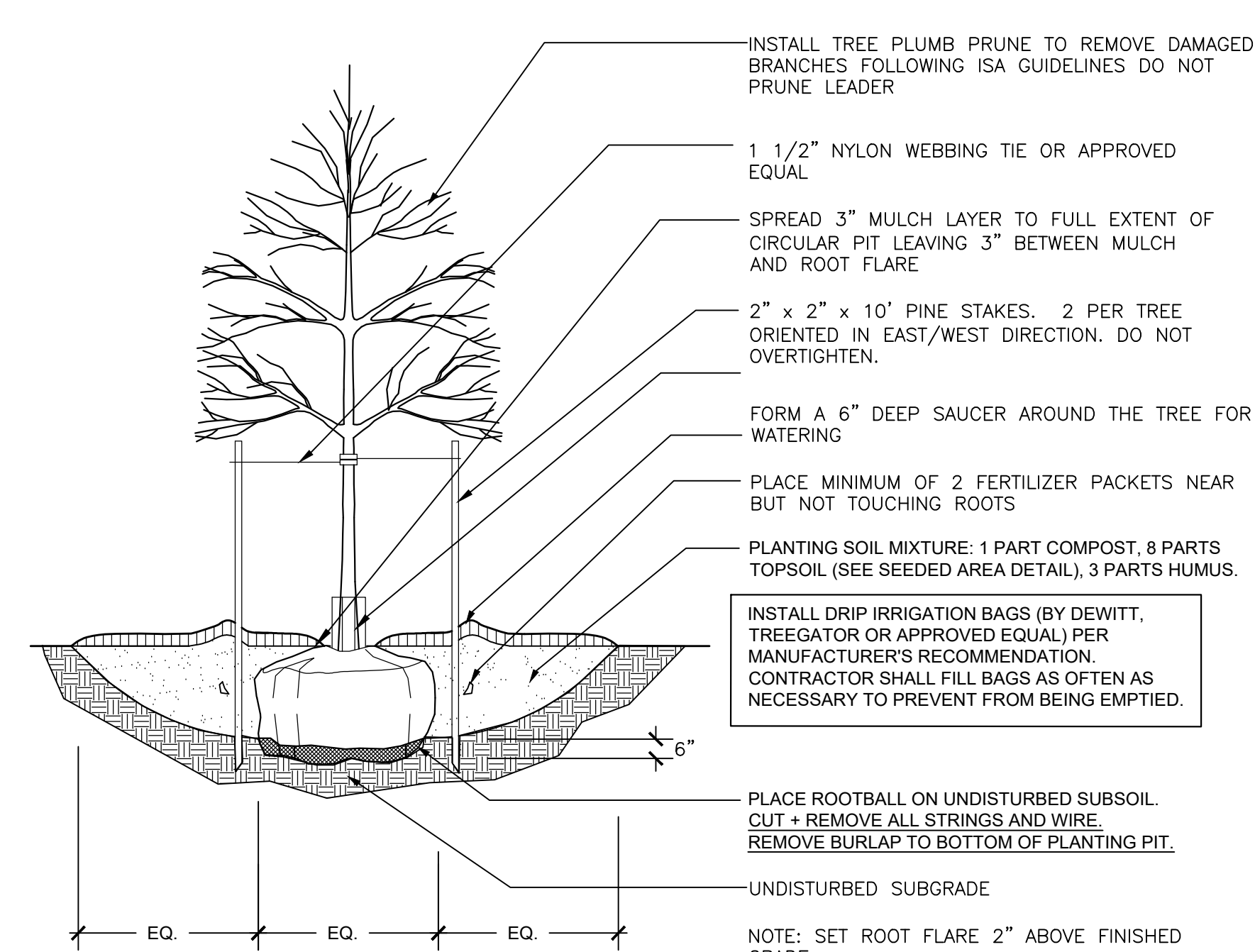
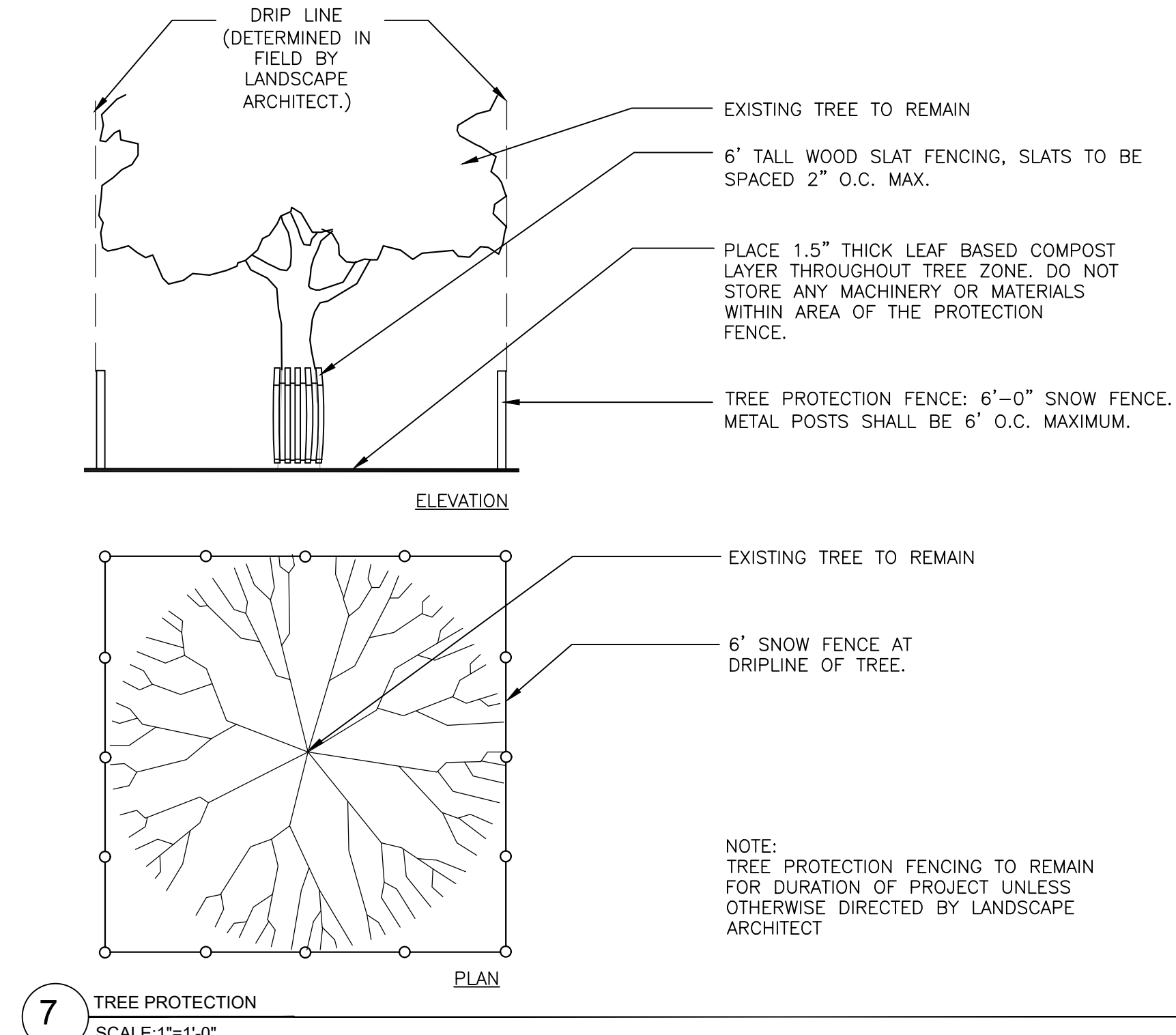
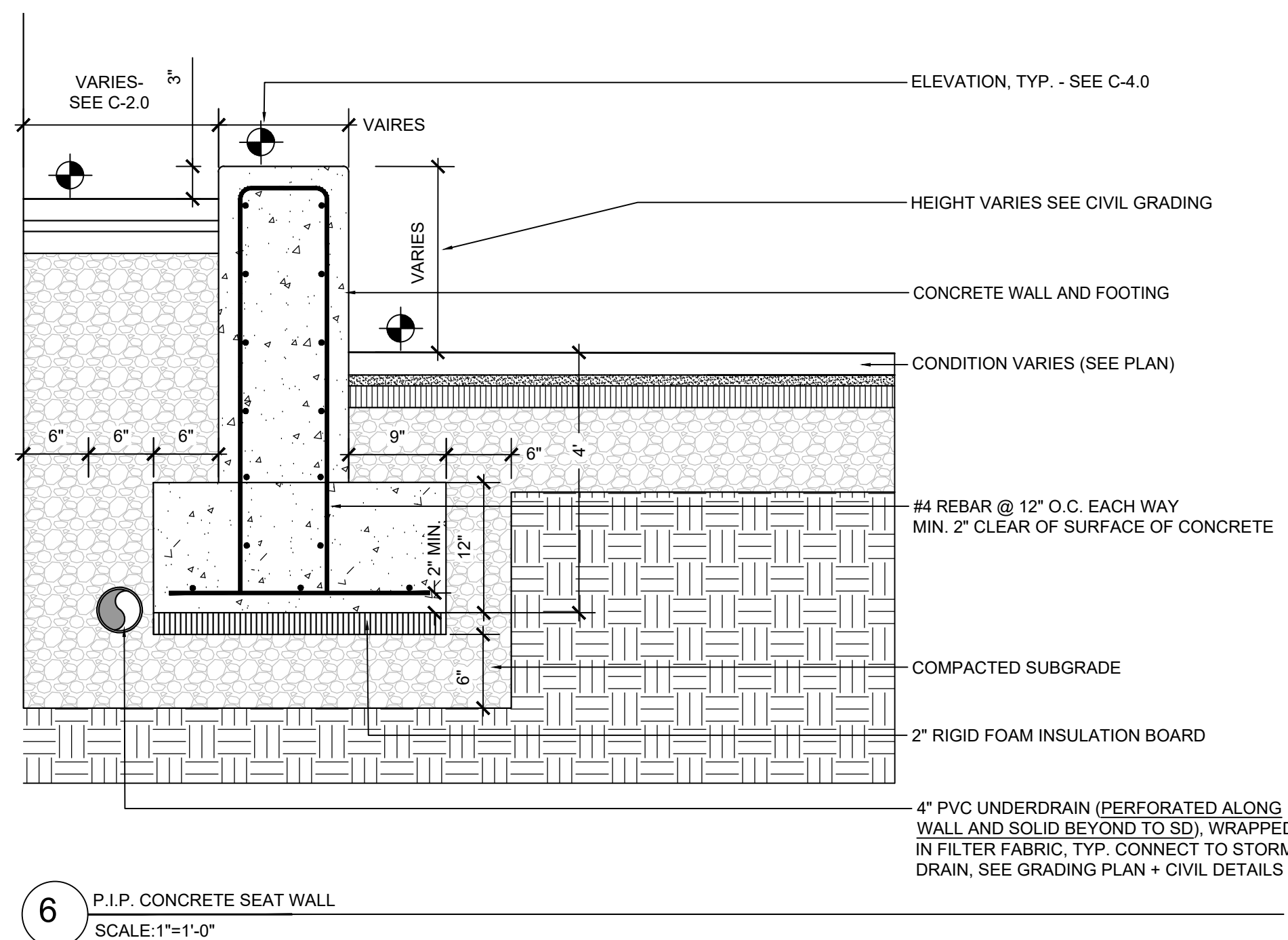
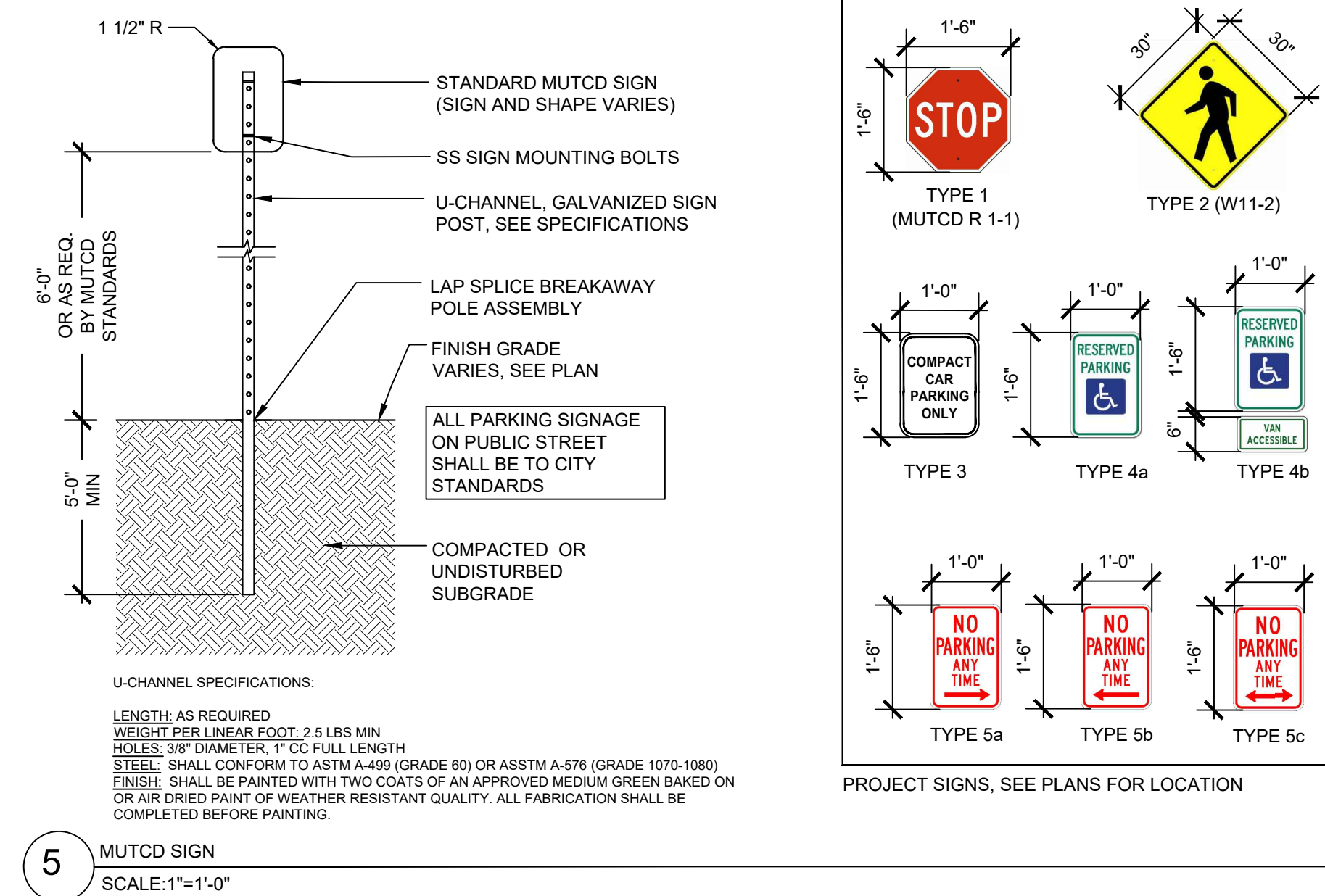
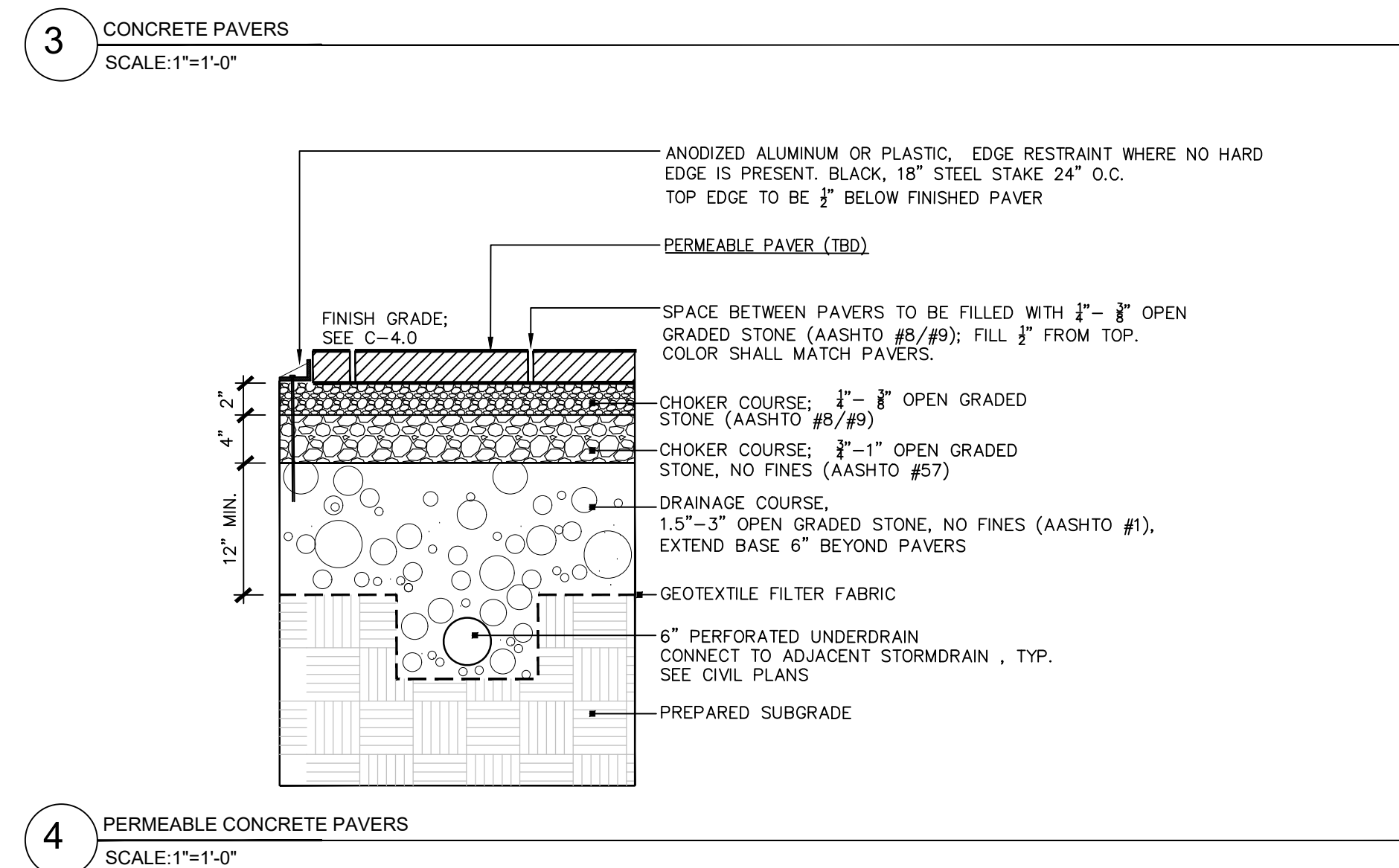
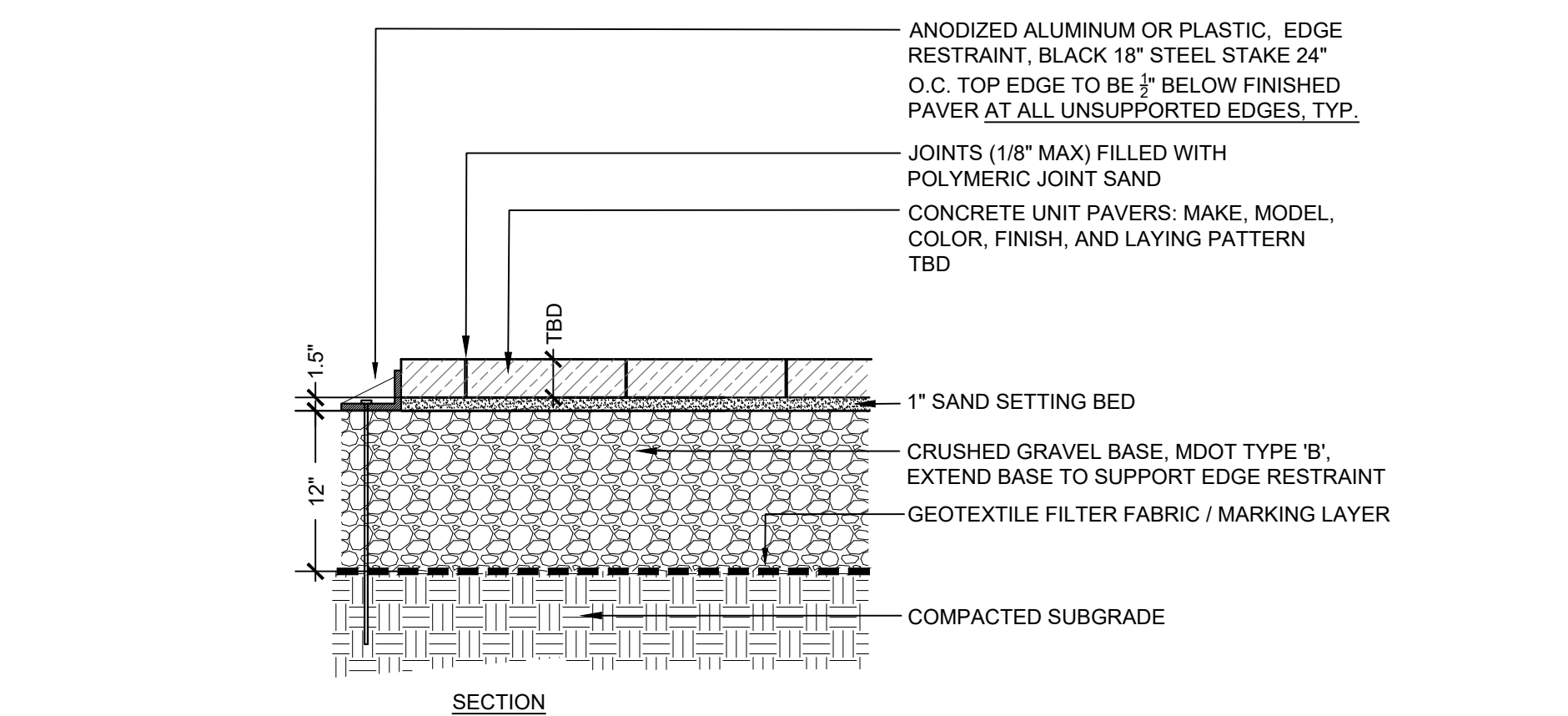
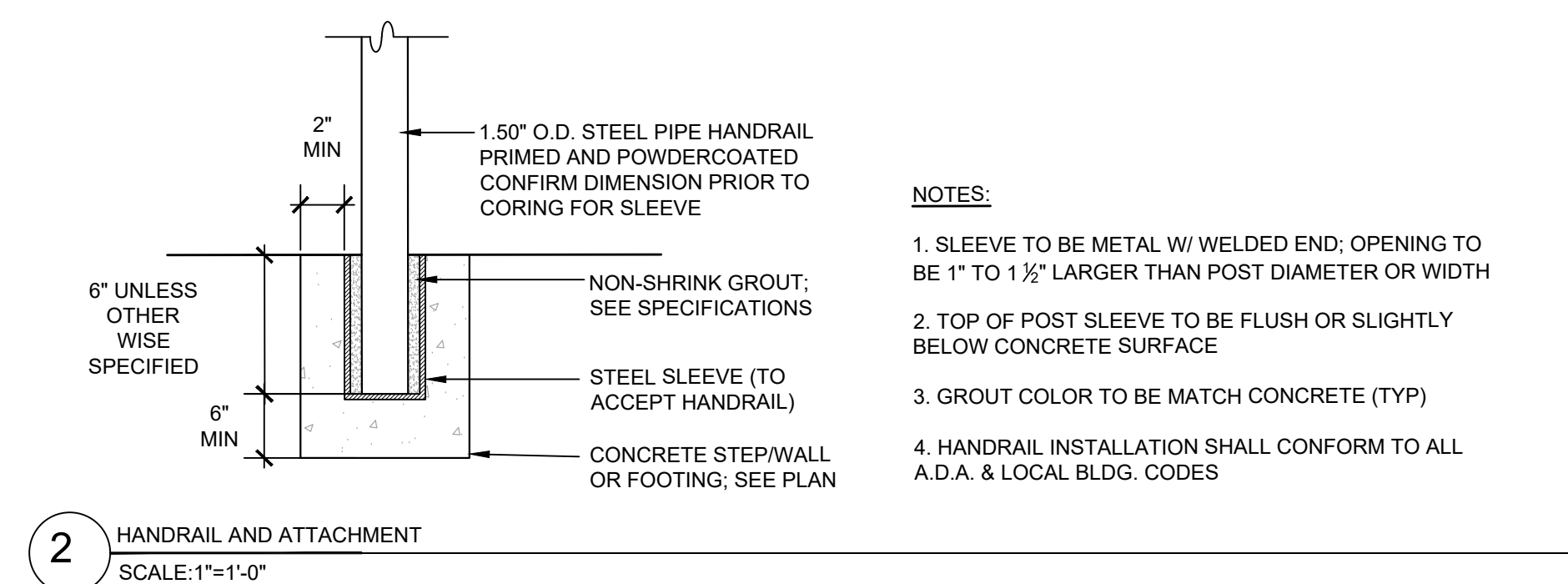
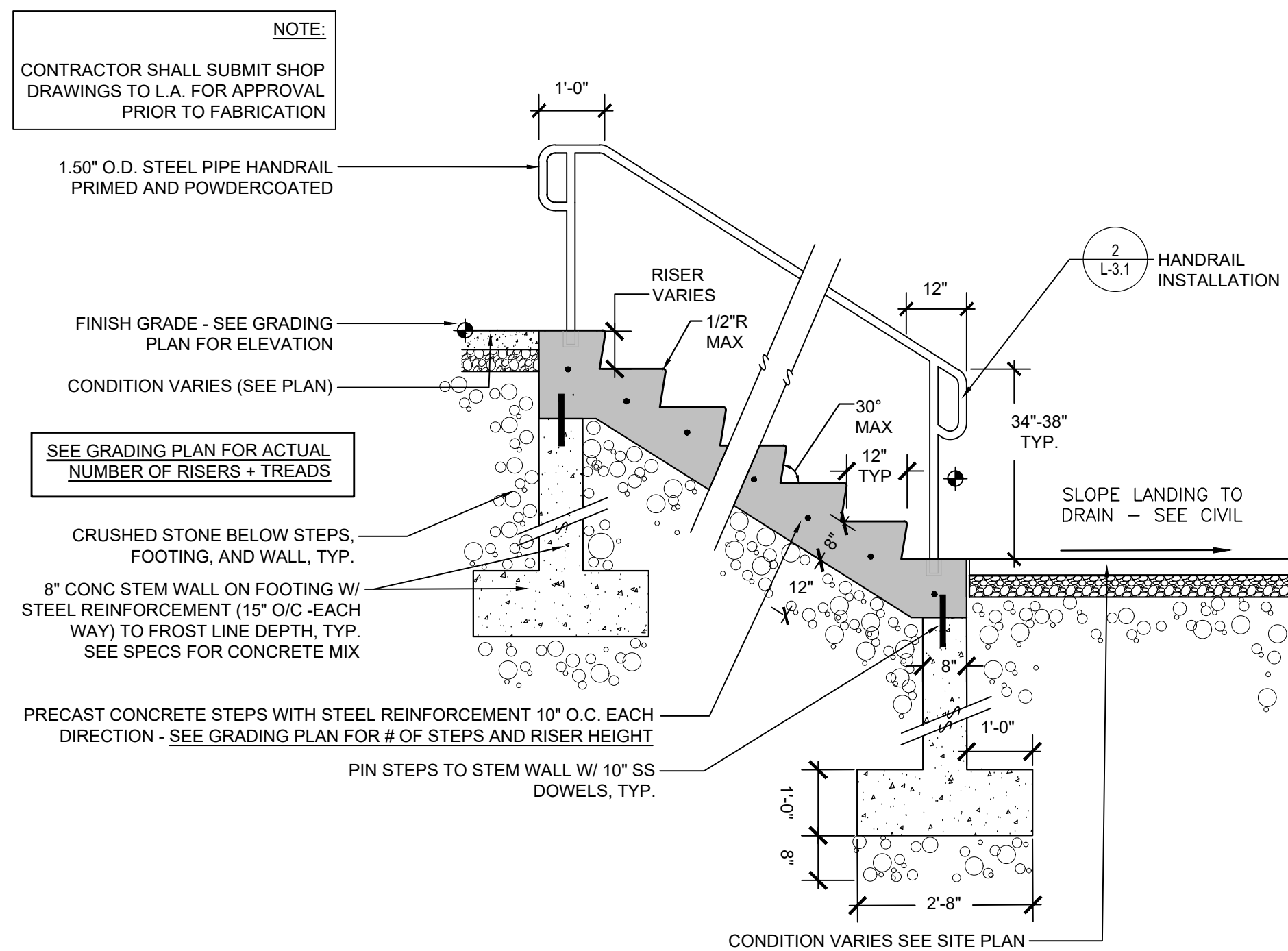
L-2.0





L-3.0

L-3.0



APPLICANT:

FRONT STREET
REDEVELOPMENT, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

OWNER:

PORTLAND HOUSING
AUTHORITY
14 BAXTER BLVD
PORTLAND, MAINE 04101

FRONT STREET DEVELOPMENT

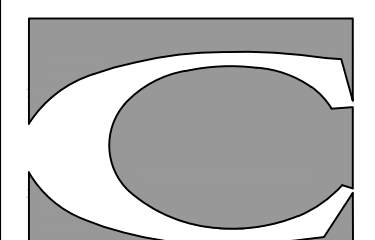
Revisions	Date	Description
2	07.09.2019	REVISIONS - LEVEL III
1	05.22.2019	LEVEL III SITE PLAN



Drawn By: MP	Approved By: PC	Scale: AS SHOWN
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Phase:

PERMITTING

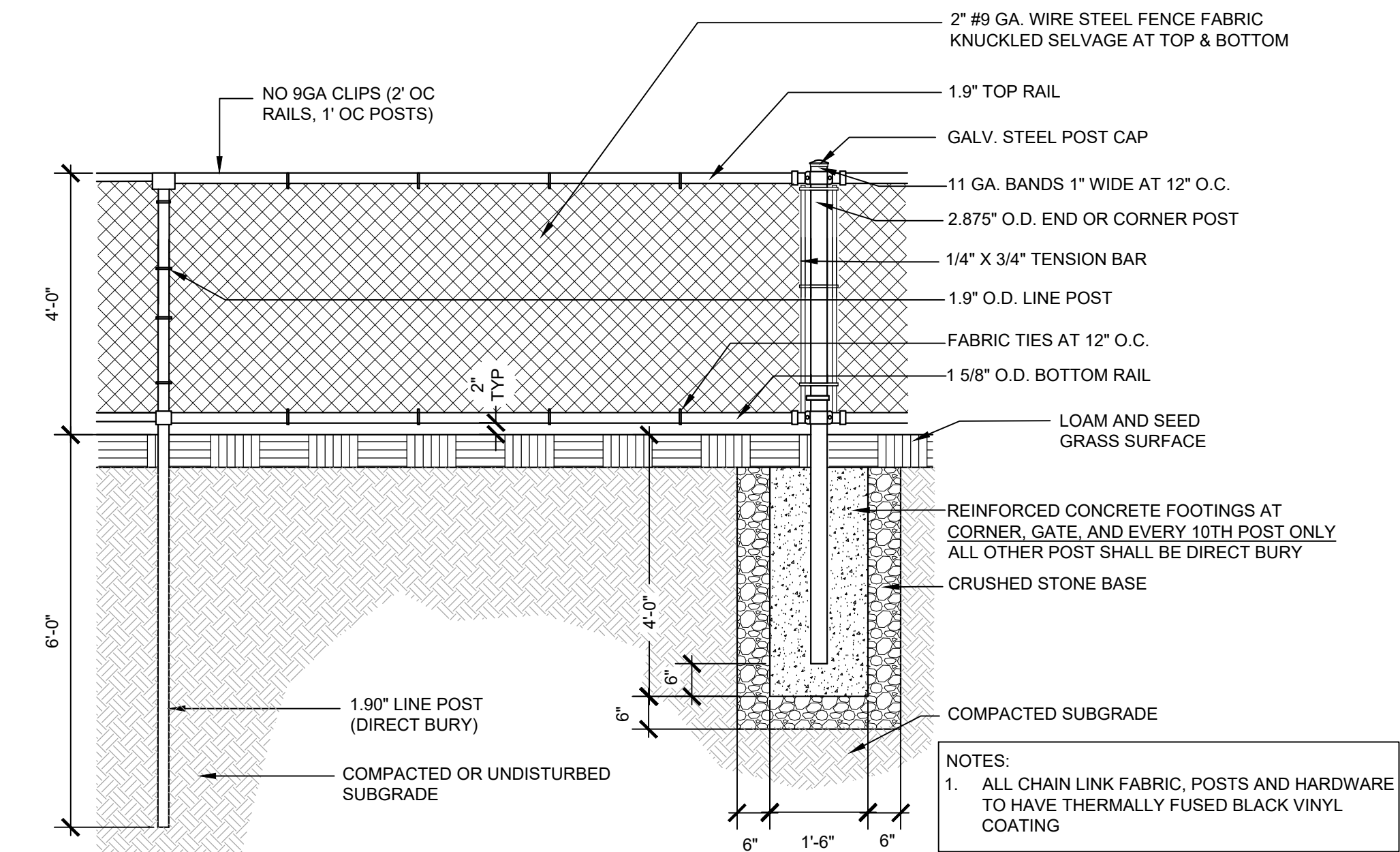


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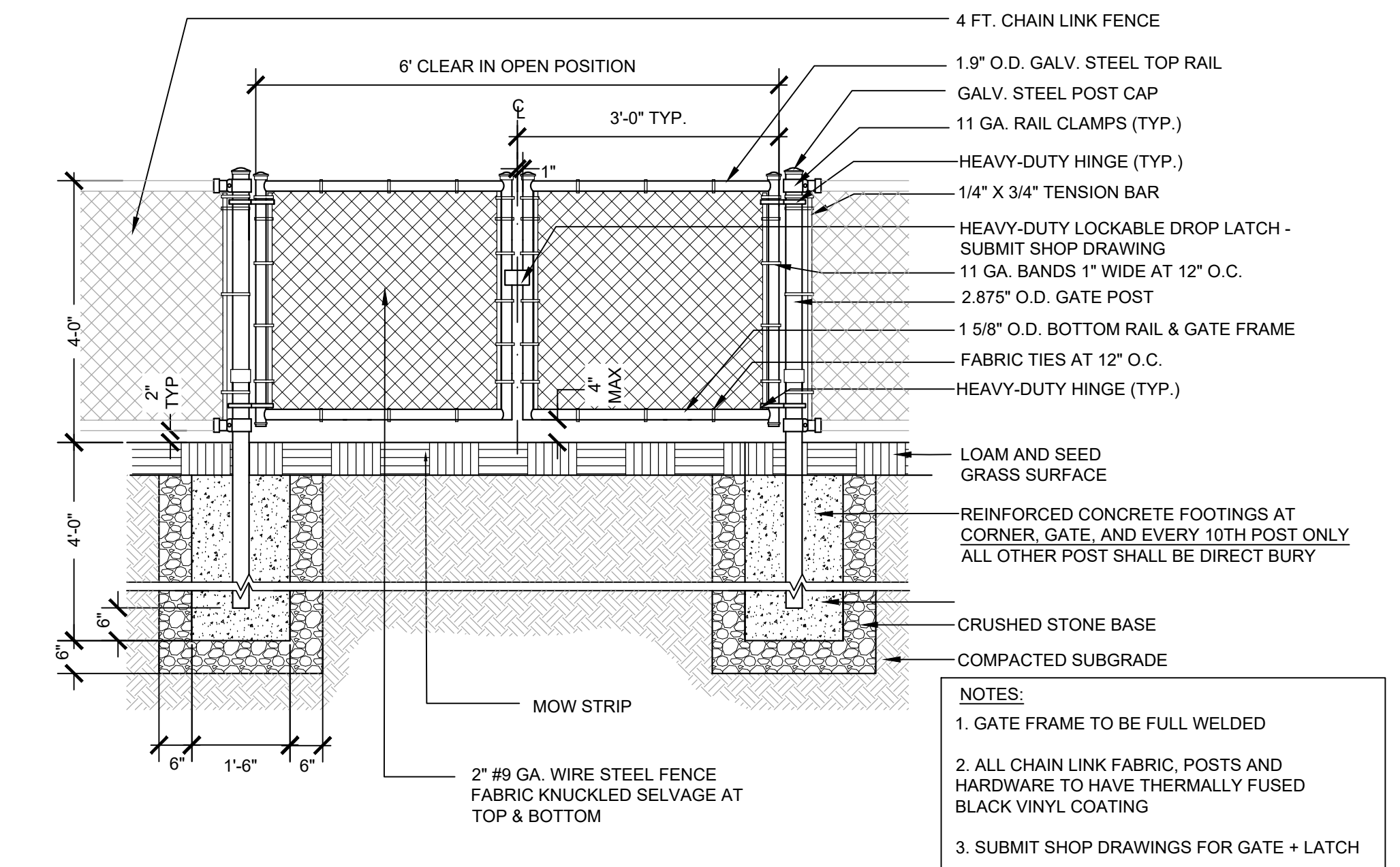
Date:
MARCH 14, 2018

Sheet No:

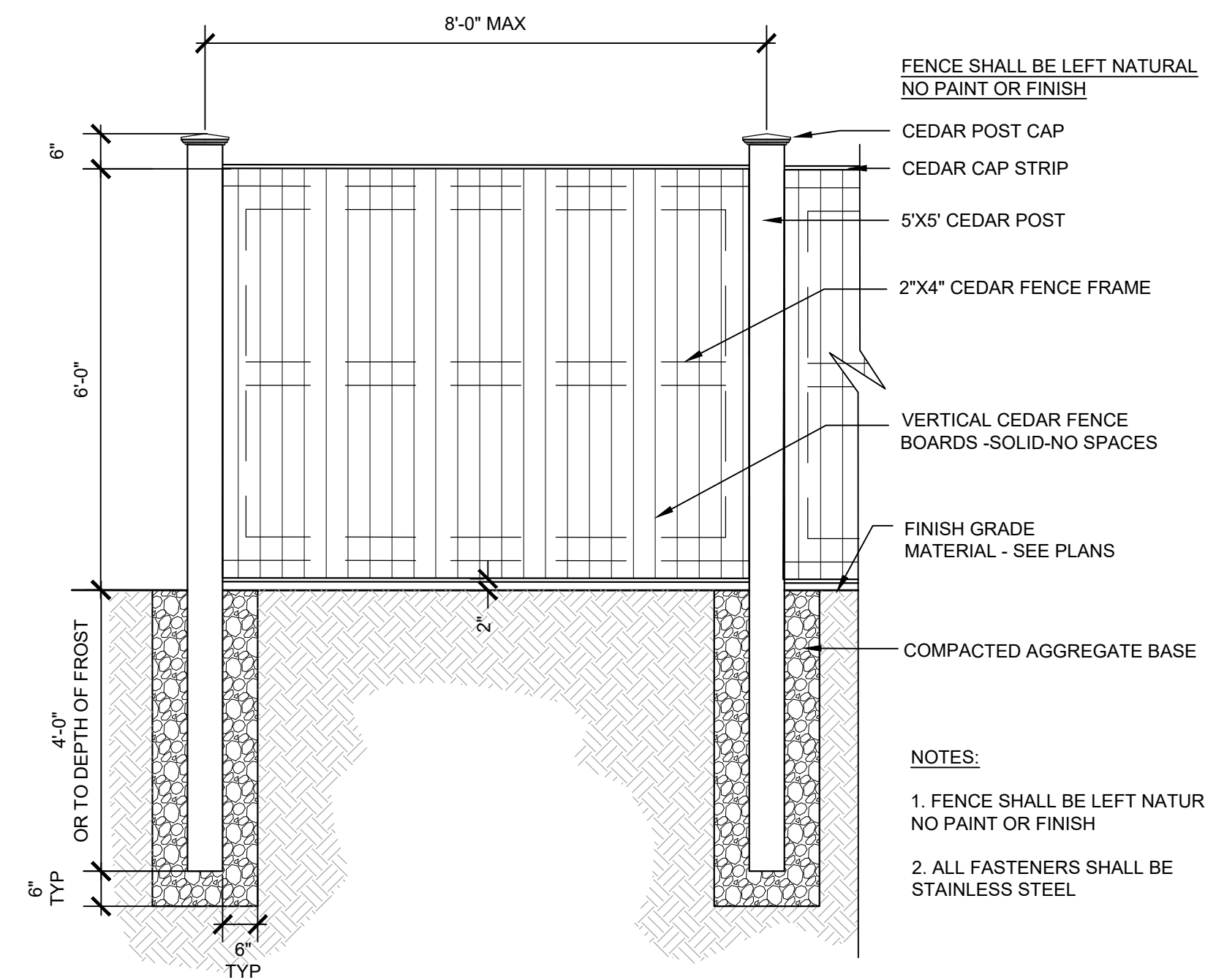
L-3.1



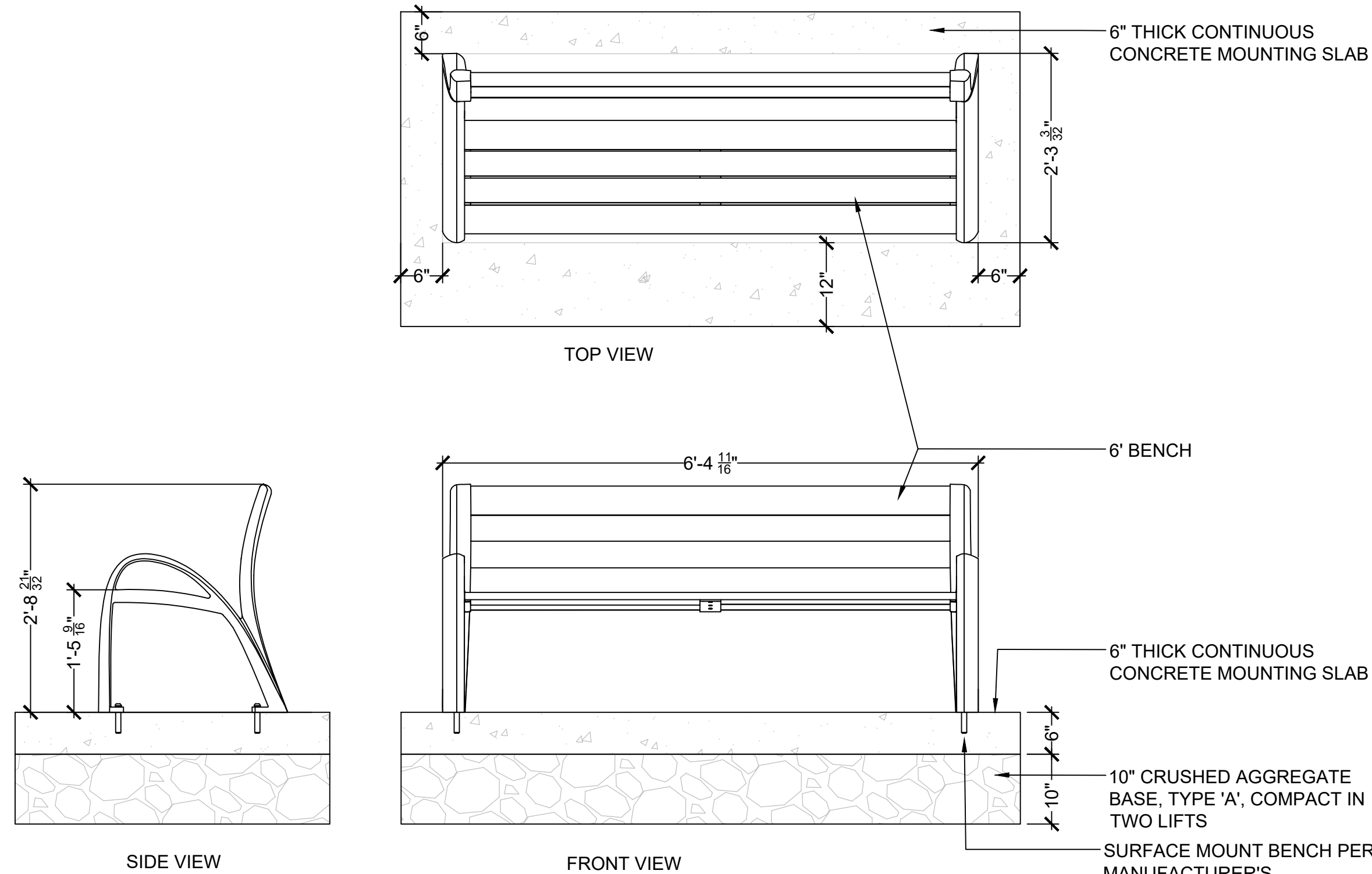
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SCALE: NTS



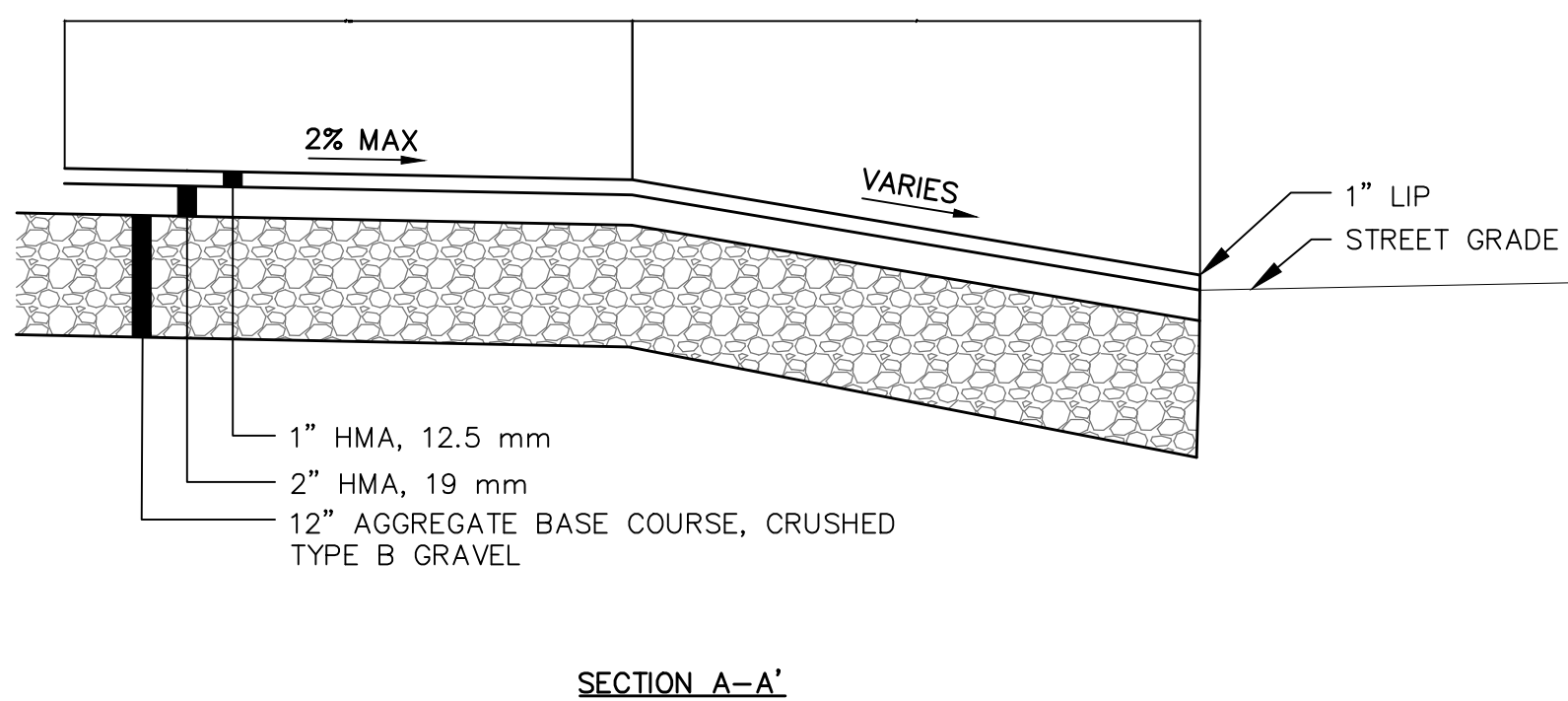
2 CHAIN LINK GATE + POST
SCALE: NTS



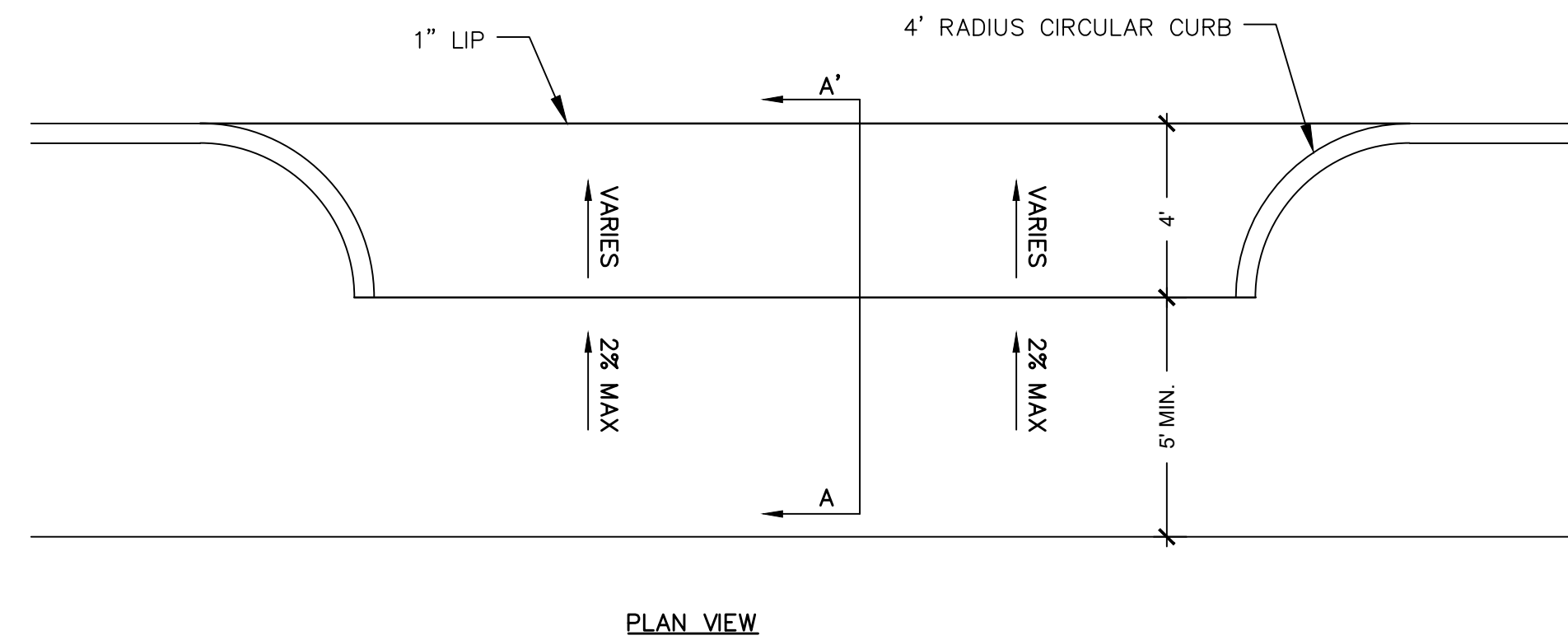
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SCALE: 1"=1'-0"



4 BENCH
SCALE: 1"=1'-0"



5 SIDEWALK DETAIL @ DRIVEWAY CROSSINGS
SCALE: 1/2"=1'-0"



APPLICANT:

FRONT STREET
REDEVELOPMENT, LP
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PORTLAND, MAINE 04101

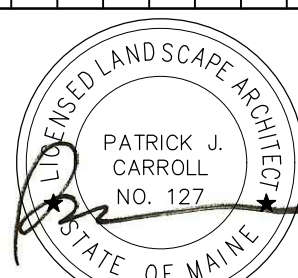
OWNER:

PORTLAND HOUSING
AUTHORITY
14 BAXTER BLVD
PORTLAND, MAINE 04101

FRONT STREET DEVELOPMENT

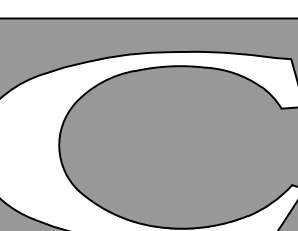
Project:

Revisions	Date	Description
2	07/09/2019	REVISIONS - LEVEL III
1	05/22/2019	LEVEL III SITE PLAN



SITE DETAILS

PERMITTING

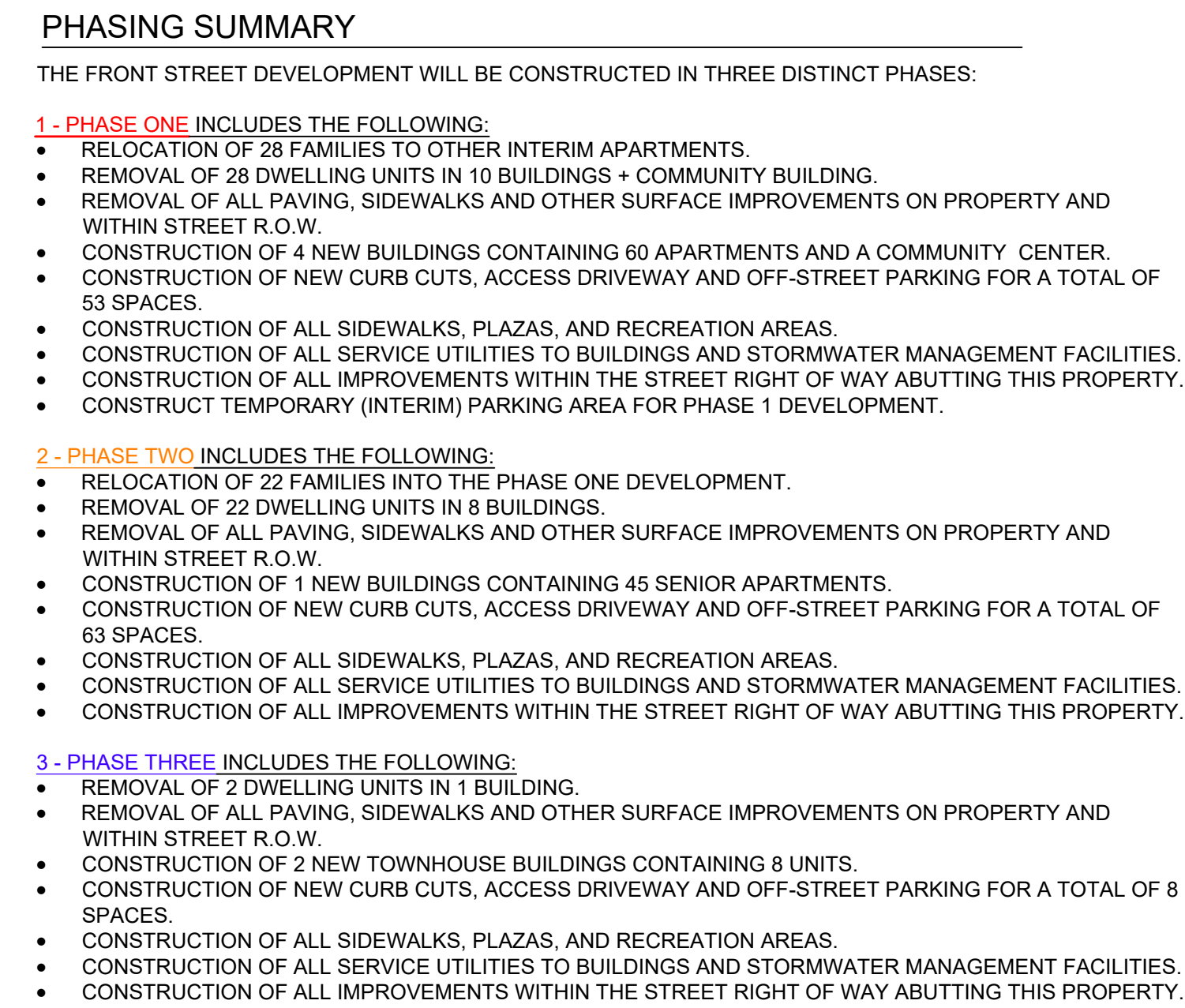


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 14, 2018

Sheet No:

L-3.2



1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
2. BOUNDARY, TOPOGRAPHY, AND EXISTING CONDITIONS INFORMATION TAKEN FROM A PLAN TITLED: "BOUNDARY & TOPOGRAPHIC SURVEY" ON FRONT STREET, ILSELY STREET & WEST PRESUMSCOT STREET PORTLAND, MAINE, MADE FOR PORTLAND HOUSING AUTHORITY, 14 BAXTER BLVD., PORTLAND, MAINE 04101. DATED DECEMBER 15, 2015 WITH A REVISION DATE OF MARCH 5, 2018. PREPARED BY OWEN HASKELL, INC. 390 US ROUTE ONE, FALMOUTH, ME 04105, TELEPHONE 207.774.0424. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, MAINE WEST NAD 83. BENCHMARK: CITY POINT MIDLOT-PO-295 ELEVATION 12.00. FIELD CONDITIONS MAY VARY SLIGHTLY FROM WHAT IS DEPICTED ON THE PLANS.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION. ANY UNUSUAL CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ATTENTION OF THE OWNER.
4. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
5. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED.

